



NEVADA SYSTEM OF HIGHER EDUCATION

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Nevada State College

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Institute

SPONSERED PROJECTS/ INDUSTRY SECTOR MAPPING

Prepared by the Research Affairs Council

NEVADA SYSTEM OF HIGHER EDUCATION

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Mapping Currently Funded Research Projects at UNR, UNLV and DRI to Targeted Industry Sectors under Nevada's 2012-14 Plan for Economic Development **Executive Summary**

In February 2012, the Nevada Governor's Office of Economic Development released "*Moving Nevada Forward: A Plan for Excellence in Economic Development 2012-2014*" (State Plan). This dynamic new plan outlines goals and objectives with the stated vision of "A vibrant, innovative, and sustainable economy" and mission of "high-quality jobs for Nevadans." The State Plan further identifies targeted sectors and specific opportunities and provides the strategies and initiatives that are best expected to capitalize on the State's existing assets and improve in other areas that require progress. As a key partner in education and a stakeholder in Nevada's future, the Nevada System of Higher Education (NSHE) is committed to contributing to the achievement of the goals and objectives contained in the State Plan.

To give the Board of Regents and the Governor's Office an idea of the substantial contributions NSHE institutions are already making to economic development efforts through their research projects, the University of Nevada, Las Vegas (UNLV); University of Nevada, Reno (UNR); and Desert Research Institute (DRI) identified research areas that are aligned with the eight industry sectors targeted under the State Plan:

1. Tourism, Gaming, and Entertainment;
2. Clean Energy;
3. Health and Medical Services;
4. Aerospace and Defense;
5. Mining, Materials, and Manufacturing;
6. Business IT Ecosystems;
7. Logistics and Operations; and
8. Additional promising possibilities including agriculture, intangibles and financial enterprises, and water technology.

Throughout this process of "mapping" existing research projects to the industry sectors, the institutions took a somewhat conservative approach in line with the objective of effectively illustrating the many existing efforts in the various fields of research that tie into Nevada's economic development plans. Because the focus of this report is the research that aligns with the identified industry sectors, it is important to keep in mind that numerous important fields of research are underway that are not specific to the industry sectors targeted under the State Plan, and thus are not included in the list of research projects in this report. Over \$120 million in funding from sponsored programs in other fields of research is not reflected in this report, including approximately \$49 million for UNLV, \$42 million for UNR, and \$30 million for DRI.

In addition, some of the research efforts identified by the universities and DRI were clearly related to the economic development plans and goals, but did not fit neatly into one of the identified sectors. To ensure these relevant research efforts were reflected, some of the sectors were modestly adjusted or expanded for purposes of the "mapping" process: (1) the Clean Energy sector also includes research more broadly relating to the environment, water and "green" energy; and (2) the Logistics and Operations sector includes transportation-related research. Based upon the description of these sectors under the State Plan, these adjustments seemed reasonable.

Overview of the Report

This report consists of the “maps” developed by UNR, UNLV and DRI showing the currently funded research projects that relate to an industry sector. Over 860 research projects have direct links to single or multiple industry sectors. These projects amount to over \$350 million dollars in funding from sponsored programs across the NSHE, including approximately \$106 million at UNLV, \$218 million at UNR, and \$26 million at DRI. The table below summarizes the number of research projects included in the report for each institution.

Aligning NSHE Research Related to Economic Development Sectors				
Economic Development Sector	Research Projects			
	UNLV	UNR	DRI	TOTAL
Tourism, Gaming, and Entertainment	8	23	0	31
Clean Energy (including the environment, certain water-related research, and “green” energy)	151	45	67	263
Health and Medical Services	100	141	0	241
Aerospace and Defense	34	52	0	86
Mining, Materials, and Manufacturing	52	36	0	88
Business IT Ecosystems	18	13	3	34
Logistics and Operations (including transportation)	27	43	0	70
Additional promising possibilities (including agriculture and financial enterprises)	1	48	0	49
Total by Institution:	391	401	70	862

In the report, the main industry sector the sponsored project supports is listed, and in appropriate cases, a secondary industry sector may be noted when cross-over into other identified areas exists. The column headers in the report define the institution leading the research project and if applicable, the institution that awarded the institution a subgrant. If a subgrant is not listed, then the institution is the prime awardee, meaning it received the sponsored award directly. The report also includes the funding agency and the lead principal investigator with a brief project description. A searchable database containing the maps from this report is available online at <http://epscoespo.nevada.edu/>.

The Role of Experimental Program to Stimulate Competitive Research (EPSCoR)

In mapping NSHE sponsored projects to the identified industry sectors, the role of EPSCoR in Nevada cannot be overlooked. The on-going commitment and contribution of NSHE institutions to important fields of research, including those relating to economic development, is strongly demonstrated by Nevada’s participation in the national Experimental Program to Stimulate Competitive Research. Administered in Nevada through the NSHE Sponsored Programs Office, EPSCoR was first created by the National Science Foundation (NSF) to fund national areas that have historically received less financial support through research and development (R&D) funding. The goal of EPSCoR is to create strategic partnerships between federal and state agencies, higher education institutions, and private industries to create long-term improvements in scientific research, infrastructures, R&D capacity and national competitiveness. Today, six other federal agencies also conduct EPSCoR programs, including NASA and the Department of Defense, and many of these programs in Nevada support the industry sectors identified in the State Plan.

Nevada is one of 27 states, in addition to Puerto Rico and the Virgin Islands, participating in the NSF EPSCoR project, which begin its fifth and final year this September. Awarded \$15 million, this program links to clean energy industry sector, as expanded for the purposes of the mapping, with a focus on Nevada infrastructure, climate change science, education and outreach. NSF EPSCoR is creating a statewide interdisciplinary program that stimulates transformative research, education, and outreach on the effects of regional climate change on ecosystem services (especially water resources) and supports use of this knowledge by policy makers and stakeholders. With its scarcity of water resources, Nevada is uniquely situated to participate in research exploring water resource issues and technologies.

More recently, the NSF's EPSCoR awarded \$6 million to the tri-state consortium of Nevada, New Mexico, and Idaho to advance computing capabilities and enhance cyber interconnection at their higher education institutions with a goal to transform climate change research. Nevada also began working with a NASA EPSCoR planning grant in 1999, through which Nevada has had the opportunity to establish research and development competitiveness and strengthen its economy through the expansion of aerospace technology, which directly relates to one of the seven industry sectors.

Conclusion

With over \$350 million in funding from sponsored projects linked to the industry sectors from the State's economic development plan, the contributions of UNLV, UNR and DRI to the State in the field of research are clearly demonstrated. With the State Plan as a roadmap, these on-going efforts, along with the other important fields of research in which the institutions are engaged, will help promote Nevada's economic diversity both now and in the future.

NEVADA SYSTEM OF HIGHER EDUCATION

**MAPPING SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS CONTAINED
IN THE STATE'S ECONOMIC DEVELOPMENT PLAN:**

*MOVING NEVADA FORWARD:
A PLAN FOR EXCELLENCE IN ECONOMIC DEVELOPMENT, 2012–2014*

PROJECTS LISTED BY INSTITUTION:

**UNIVERSITY OF NEVADA, LAS VEGAS (UNLV)
UNIVERSITY OF NEVADA, RENO, (UNR)
DESERT RESEARCH INSTITUTE (DRI)**

UNLV - UNIVERSITY OF NEVADA, LAS VEGAS

*Industry Sectors identified in the State's Economic Development Plan, *Moving Nevada Forward: A Plan for Excellence in Economic Development, 2012-2014*: 1) Tourism, Gaming and Entertainment; 2) Clean Energy and Water Technologies; 3) Health and Medical Services; 4) Aerospace and Defense; 5) Mining, Materials and Manufacturing; 6) Business IT Ecosystems; 7) Logistics and Operations (including transportation); and 8) Additional Promising Possibilities that include Agriculture and Financial Enterprises.

PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Tourism, Gaming, and Entertainment	Clean Energy	UNLV		Energy Efficiency Opportunities and Utilization in the US Lodging Industry	Schneider Electric would like to better understand owners/managers' awareness of current energy management solutions and opportunities in the lodging industry. The study will utilize a survey method to collect data.	Schneider Electric	Baloglu, Seyhmus		20,000	12/31/2012
Tourism, Gaming, and Entertainment		UNLV		Nevada Problem Gambling Data Project	The University of Las Vegas International Gaming Institute (UNLV-IGI) will oversee data collection from the six of state-funded problem gambling treatment providers in a manner that is consistent with historical efforts, thereby ensuring maximum consistency and comparability. In addition, UNLV-IGI will continue to develop a new and separate intake approach that will be: 1. Incorporated into the clinic's data collection processes; 2. Used to generate information that the Department of Health and Human Services (DHHS) Grants Management Unit (GMU) will use to reimburse state-funded providers, and 3. Used to ensure that clients do not reach a benefit cap by checking into more than one clinic. Specifically, this system will track: 1. Client name and/or Identifier, 2. Provider Identifier, 3. Date of Admission, 4. Date of Discharge, 5. State Benefits Used to Date, 6. Exceptions Made to Cap (how much and why). UNLV-IGI will provide technical assistance as needed to state-funded treatment providers in the use of intake system, and at the completion of the fiscal year will produce a research report summarizing the data collected including the number of clients treated, the demographic characteristics of these clients, and their gambling characteristics.	Nevada Department of Health and Human Services	Bernhard, Bo		22,057	6/30/2012
Tourism, Gaming, and Entertainment		UNLV		Nevada Problem Gambling Data Project	The University of Las Vegas International Gaming Institute (UNLV-IGI) will oversee data collection from the six of state-funded problem gambling treatment providers in a manner that is consistent with historical efforts, thereby ensuring maximum consistency and comparability. In addition, UNLV-IGI will continue to develop a new and separate intake approach that will be: 1. Incorporated into the clinic's data collection processes; 2. Used to generate information that the Department of Health and Human Services (DHHS) Grants Management Unit (GMU) will use to reimburse state-funded providers, and 3. Used to ensure that clients do not reach a benefit cap by checking into more than one clinic. Specifically, this system will track: 1. Client name and/or Identifier, 2. Provider Identifier, 3. Date of Admission, 4. Date of Discharge, 5. State Benefits Used to Date, 6. Exceptions Made to Cap (how much and why). UNLV-IGI will provide technical assistance as needed to state-funded treatment providers in the use of intake system, and at the completion of the fiscal year will produce a research report summarizing the data collected including the number of clients treated, the demographic characteristics of these clients, and their gambling characteristics.	Nevada Department of Health and Human Services	Bernhard, Bo		11,029	6/30/2012
Tourism, Gaming, and Entertainment		UNLV		C.P.B. Radio Community Service Grant FY 2011 - NPPAG		Corporation for Public Broadcasting	Mueller, Frank		22,730	9/30/2012
Tourism, Gaming, and Entertainment		UNLV		CPB Fiscal Stabilization Grant	Maintain local programming and services and preserve jobs threatened by declines in non-federal revenue sources during the current economic decline.	Corporation for Public Broadcasting	Mueller, Frank		5,971	12/31/2012
Tourism, Gaming, and Entertainment		UNLV		Conrad N Hilton Foundation Grant	To improve and sustain our ability to provide a high quality hospitality education resulting in well-prepared graduates who contribute positively to the hospitality industry.	Conrad N Hilton Foundation	Snyder, Donald		1,000,000	6/30/2014
Tourism, Gaming, and Entertainment		UNLV		Dreaming the Skyline: Resort Architecture and the New Urban Space	A digitization project that will provide online access to the records and representations of the buildings that define the urban landscape in Las Vegas and Nevada. Resort architecture, and the evolution of concepts, designs, and the associated school of thought, is an integral part of Nevada's history and culture. The voluminous items, fragile and difficult to access, are increasingly important to a user group now international in scope. The UNLV Libraries intend to produce an online archive of Nevada's most prominent resorts, both to preserve our own history as well as to teach and inform new architects, designers, and others who wish to study our unique urban landscape.	Nevada State Library and Archives	Vaughan, Jason		80,000	6/30/2012
Tourism, Gaming, and Entertainment		UNLV		Statewide Digital Initiative - Newspaper Pilot Project	UNLV Library staff have observed with growing interest the trend of universities digitizing historical runs of their student newspapers. UNLV's student newspaper, the Rebel Yell, began publication in 1955 and was awarded by the Society of Professional Journalists as the Best Non-Daily Student Newspaper in 2005. The student newspaper is a primary historical record of the largest university in Nevada, and reflects life on an urban campus and it's setting within its parent city, Las Vegas. The UNLV Libraries already possess required microfilm, and have already cleared any copyright questions. This project would not only make our campus newspaper easily accessible, it would allow the libraries to further develop the capacity and technical knowledge to undertake and participate in potential future newspaper digitization projects. In particular, newspaper digitization is referenced several times in Nevada's Five Year Statewide Digital Action Plan (e.g. Explore interest in for statewide digitization initiatives, e.g. oral history, newspaper digitization, including funding strategies - Fall 2012 and Demonstrate statewide multi-cultural heritage initiative creating a model project, for example online oral history collection, online historic	Nevada State Library and Archives	Vaughan, Jason		24,500	8/30/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessment and Monitoring Design for Evaluating Desert Tortoise Vegetation Enhancement	To enhance desert tortoise habitat in conjunction with a Fish and Wildlife Service desert tortoise translocation, BLM seeks to conduct a project to better understand the effectiveness of seeding and watering to increase desert tortoise forage species and vegetation enhancement. The project will occur in the desert tortoise long-term study and translocation site near Jean, Nevada. The BLM will conduct the actual seeding and watering treatments. The purpose of the project proposed here is to provide technical assistance to BLM in developing a scientifically rigorous experimental design and monitoring plan for evaluating the effectiveness of the vegetation enhancement treatments.	U.S. Bureau of Land Management	Abella, Scott		19,847	12/31/2013
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessment and Restoration of Mesquite and Acacia Woodlands within Lake Mead Recreational Area	The purpose of this project is for NPS and the University of Nevada, Las Vegas to collaborate in understanding the distribution of mesquite/acacia communities within Lake Mead National Recreation Area (LMNRA), assess the possible threats to the woodlands and the most effective restoration techniques for this vegetation type.	National Park Service (DOI)	Abella, Scott		170,898	9/30/2012
Clean Energy		UNLV		Develop and Test Mojave Native Plant Materials	Establish a Mojave native plant materials program to provide locally adapted native plant materials for landscape vegetation rehabilitation.	U.S. Bureau of Land Management	Abella, Scott		160,000	8/31/2013
Clean Energy		UNLV		Developing Appropriate Restoration Practices for Arizona Sonoran Desert Uplands Invaded by Buffelgrass	The goal of this project is to assess three factors related to understanding buffelgrass invasion and to develop appropriate restoration practices for buffelgrass-invaded sites: (1) buffelgrass and native plant seed banks (density along invasion gradients and responses to heat under simulated fire in comparison to native species), (2) soil properties along buffelgrass invasion gradients, and (3) interactions with native plants that may be good candidates for inclusion in seed mixes for restoring sites where buffelgrass has been treated. This collaborative project will produce a literature review report and reports on each of the three factors and their implications for managing buffelgrass and native ecosystems invaded by buffelgrass.	National Park Service (DOI)	Abella, Scott		94,999	3/1/2014
Clean Energy		UNLV		Gypsum Soil Restoration and Revegetation in Lake Mead National Recreation Area: Treatment, Monitoring, and Management Activities	Conduct experiments testing various methods of restoration of the vegetative community and surface structure in gypsum soils.	National Park Service (DOI)	Abella, Scott		256,970	9/30/2012
Clean Energy		UNLV		Investigation of Non-Native Species Invasion into Rare Plant Habitat within Lake Mead National Recreation Area	This project will provide information on the role of biotic and abiotic factors on habitat invasibility. Specifically, the study will document seed viability patterns below and above ground and will be evaluated through experiments conducted in field and greenhouse settings.	National Park Service (DOI)	Abella, Scott		94,799	5/30/2013
Clean Energy		UNLV		Investigation of Plant Colonization and Succession in the Lake Mead Shoreline Drawdown Zone	This project will investigate vegetation colonization and succession along the newly exposed shoreline of Lake Mead.	National Park Service (DOI)	Abella, Scott		120,111	5/1/2013

UNLV - UNIVERSITY OF NEVADA, LAS VEGAS

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Clean Energy		UNLV		Monitoring Seeding Effectiveness for Augmenting Native Species Establishment on the Goodsprings and Bonnie Springs Fires, Red Rock Canyon National Conservation Area, Southern Nevada	This project will result in the continuation of (1) effectiveness monitoring of Bureau of Land Management (BLM) native species seeding treatments for revegetating two wildfires in Red Rock Canyon National Conservation Area of southern Nevada, and (2) monitor natural recovery of the communities on these two fires.	U.S. Geological Survey	Abella, Scott		75,000	5/10/2013
Clean Energy		UNLV		Science Support for Tule Desert Fuel Breaks and Greenstrips Project	The purpose of this cooperative agreement between the Bureau of Land Management (BLM) and the University of Nevada, Las Vegas (UNLV) is to provide research opportunities for Environmental Science undergraduate students, while assessing the fuel break and greenstrips treatments for success and/or failure.	U.S. Bureau of Land Management	Abella, Scott		56,000	9/20/2013
Clean Energy		UNLV		CAREER: Vulnerability of Water Infrastructure to Climate Variability and Change: Implications for Sustainable Water Management - ARRA	The motivation of this research is to understand the complex and dynamic interactions among population growth, water-energy nexus, climate change, and vulnerability in a coupled human-environmental system.	National Science Foundation	Ahmad, Sajjad		400,000	7/31/2014
Clean Energy		UNLV		Career: Vulnerability of Water Infrastructure to Climate Variability and Change: Implications of Sustainable Water Management - REU - ARRA	The motivation of this research is to understand the complex and dynamic interactions among population growth, water-energy nexus, climate change, and vulnerability in a coupled human-environmental system.	National Science Foundation	Ahmad, Sajjad		30,000	7/1/2014
Clean Energy		UNLV		CAREER: Development of Novel Polymer Electrolytes - Synthesis and Applications in Fuel Cells	The goal of this project is to build an interdisciplinary materials research and education program by developing a novel class of polymer electrolyte materials that will be useful for high-temperature fuel cell applications and enhance our understanding of the structure-property relationships of these materials at the molecular level.	National Science Foundation	Bae, Chulsung		450,000	8/31/2013
Clean Energy		UNLV		Development of Biofuels Using Ionic Transfer Membranes - Phase 3	Develop a more advanced ionic coating materials that can facilitate efficient transport of sodium via structural and morphological controls of the ionic polymers.	U.S. Department of Energy	Bae, Chulsung		207,388	9/30/2012
Clean Energy		UNLV		Development of Ultrafiltration Membrane-Separation Technology for Energy-Efficient Water Treatment and Desalination Process	This proposal outlines a research plan to develop new polymeric membrane materials that will significantly enhance our understanding of membrane fouling mechanism and advance the development of anti-fouling membranes. The principal investigator proposes a new strategy to synthesize robust polysulfone membrane materials functionalized with various ionic groups and concentrations.	U.S. Department of Energy	Bae, Chulsung		752,600	9/14/2015
Clean Energy		UNLV		Development of Water-Soluble Semi-Conducting Polymers for Solar Cell Applications	Development of novel water-soluble conducting polymers (both p-type and n-type) have that have high conversion efficiency in solar cells.	Korea Institute of Industrial Technology	Bae, Chulsung		37,040	8/31/2012
Clean Energy		UNLV	Desert Research Institute	Liquid Crystal-Based Photovoltaic Cells - Task 2.5.2	Organic photovoltaic cells (OPVC) promise inexpensive electricity form sunlight, but the state of the art OPVCs do not last long. They are unstable because the light-harvesting nanoscale structures aggregate, forming large, inert domains. This aggregation in unavoidable in the current generation of OPVCs because they require two components that must be immiscible. To circumvent the aggregation problem, we propose to take advantage of the unique and tunable phase behavior of OPVC based liquid crystals. Our project spans chemistry, devices, and the development of infrastructure for photovoltaic research.	US Department of Energy	Bae, Chulsung		62,500	9/30/2012
Clean Energy		UNLV	Desert Research Institute	Nano-Structured Polymer Electrolyte Membranes for Hydrogen Fuel Cell Applications Task 7.1.2	This proposal outlines a research plan to develop new proton-conductive materials that will significantly advance progress in fuel cell membrane technology.	US Department of Energy	Bae, Chulsung		67,500	9/30/2012
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium: Task 1.3 Algal Based Fuels	All three NSHE research institutions have on-going RandD related to algal fuels. DRI is exploring the potential of utilizing geothermal fluids for growing algae; UNR is developing modified algal strains to maximize lipid productions; UNLV is working on various engineering aspects related to efficient use of light and improved harvesting techniques. This task will support these on-going activities, help coordinate the work of all three institutions, and extend this work in several new directions.	US Department of Energy	Bae, Chulsung		56,450	9/30/2012
Clean Energy		UNLV	Desert Research Institute	Education and Workforce Development 2 - Task 4.1.2	We propose to develop a workforce training certificate program in renewable energy systems integration with electric grid, to enhance the local workforce performance and expand further the installation of renewable power generation plants in Nevada.	US Department of Energy	Baghzouz, Yahia		29,999	9/30/2012
Clean Energy		UNLV		Optimizing Bifacial PV Shade Structures for the Southwest	Undertake to quantify the increased energy generating potential of the first commercial-scale bifacial PV array on a fixed-tilt and a tracking PV shade structure in Las Vegas, NV.	Nat'l Renewable Energy Lab	Baghzouz, Yahia		196,403	8/14/2012
Clean Energy		UNLV		Recovery Act: A Nationwide Consortium of Universities to Revitalize Electric Power Engineering Education by State-of-the-Art Laboratories - ARRA	Task 1. During the first year, acquire two of the power electronics laboratory stations or one station of the electric drives laboratory and become familiar with the hardware and experiments. 2. Use the above hardware and UMN-developed experiments in our course (EE 442/642) as we deem appropriate. 3. Modify the UMN experiments as needed for our local needs and possibly develop new experiments. 4. Disseminate the UMN laboratories and our new or modified experiments to other regional universities, technical and community colleges. 5. Attend and actively participate in yearly workshops involving all consortium universities presenting our experiences and new developments to the other participants. 6. Submit a brief quarterly progress report to the University of Minnesota who will provide an online form for the report.	University of Minnesota-FPT	Baghzouz, Yahia		16,666	7/29/2012
Clean Energy		UNLV	Desert Research Institute	Smart Grid-Balancing Intermittent Renewable Generation with Controllable HVAC Load - Task 7.2.2	This project will focus on the smart integration of intermittent renewable generation, namely wind and photovoltaic energy, by matching the output of these generators with heating, ventilation and air conditioning (HVAC) loads on actual NV Energy distribution feeders in Northern and Southern Nevada. The project will consider factors that are critical to the successful exploitation of renewable energy including: intermittency, integration, penetration, coordination, reliability, power quality and optimal operation. The project will provide feasibility data for the expansion of wind and photovoltaic energy production to meet residential, commercial and industrial loads throughout the country.	US Department of Energy	Baghzouz, Yahia		45,000	9/30/2012
Clean Energy		UNLV		Energy Consumption and Carbon Foot-Print of Wastewater Treatment - Phase 1 - Detailed Study of the Aeration System	We propose to use system dynamic modeling approach to evaluate the energy consumption and carbon-foot print for a Clark County wastewater treatment plant. The focus is on the unit operations (e.g. aeration, sludge handling, disinfection) themselves, not on ancillary facilities. Such a model would allow for determination of energy consumption and carbon foot-print of each unit operation present in the plant. Clark County plants are ideal for such study because some of them contain very advanced technology, such as UV radiation, membrane systems and ozonation. In addition, Clark County manages large and small treatment plants and reuse plants that also could benefit from an energy mass balance aiming at increased sustainability.	Clark County Water Reclamation District	Batista, Jacimaria		22,033	6/30/2012
Clean Energy		UNLV		Potential Treatment of Shale Water	The objective of the work described in this proposal are: 1) To estimate the potential quality and amount of water that would be generated in the mining and processing of oil shale in the United States. 2) To perform a preliminary feasibility study to determine whether the technology developed by Mr. Dan Zioli would be suitable to treat the waters from oil shale. 3) To perform laboratory testing, using an actual shale water, to investigate whether the technology can meet the desired water standards.	Earl Corporation	Batista, Jacimaria		45,122	6/30/2012

UNLV - UNIVERSITY OF NEVADA, LAS VEGAS

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Clean Energy		UNLV		Collaborative Research: Using Single-Molecule Force and Fluorescence Microscopy to Elucidate the Molecular Mechanism of Bioinspired Magnetite Synthesis in Magnetotactic Bacteria - ARRA	The objective of this research is to use in-vivo and in-vitro single-molecule techniques to investigate the molecular mechanism for protein-mediated biomineralization of magnetite crystals on the cell membrane of a living magnetotactic bacterium.	National Science Foundation	Bazylnski, Dennis		146,261	8/31/2012
Clean Energy		UNLV		Development and Validation of an ATR-C Radiation Transport Model	The main objective of this project is to develop a Monte Carlo model of the ATR-C in Phase I and in Phase II to validate that model while demonstrating the usefulness of ATR-C for future criticality experiments.	Idaho National Laboratory	Beller, Denis		94,769	9/30/2013
Clean Energy		UNLV		Development of a Nuclear Criticality Safety Education and Training Program at UNLV	The proposed nuclear criticality safety education and training program at the University of Nevada, Las Vegas (UNLV) will support the nuclear industry including reactors, used fuel storage and also enrichment and fuel cycle facilities. Within this education and training program, a new nuclear criticality safety (NCS) track will be established as part of the current Master of Science in Materials and Nuclear Engineering degree program at UNLV. This track will include introduction to nuclear criticality safety, Monte Carlo methods, criticality data evaluations, criticality design calculations, and/or criticality experiments. In addition, we will work with various nuclear criticality safety groups (e.g., NSTec, LANL, URENCO USA) to develop an Independent Study/Selected Topics in Nuclear Criticality Safety course that is specifically targeted at the needs of these groups. These criticality safety courses, geared towards nuclear professionals, will be offered both as in house courses at UNLV and as distance learning education.	Nuclear Regulatory Commission	Beller, Denis		198,660	6/6/2014
Clean Energy		UNLV		Nuclear Criticality Safety Program - Task 31	Provide technical support and deliverables for establishing and maintaining a fully compliant Nuclear Criticality Safety Program.	National Security Technologies	Beller, Denis		155,052	9/30/2012
Clean Energy		UNLV		Dramatic Residential Demand Reduction in the Desert Southwest - ARRA	The objective of the proposed work is to demonstrate dramatic peak demand reduction in residential new construction via distributed generation, distributed energy storage, energy efficiency, direct load control, and price-responsive load control.	U.S. Department of Energy	Boehm, Robert	Pulte Homes Nevada Energy	5,724,709	10/1/2013
Clean Energy		UNLV	Desert Research Institute	Education and Workforce Development - Task 4.1.2	Prepare a web-based course on solar energy for manpower training development.	US Department of Energy	Boehm, Robert		35,453	9/30/2012
Clean Energy		UNLV		Low Cost High Concentration Photovoltaic Systems for Utility Power Generation	Additional tasks: Task 1: Testing of the 8700 single plate module-UNLV will move Geoff's special module to the top part of the UNLV 7700 frame. UNLV will design and fabricate brackets for mounting the 8700 module such that the plate can be removed easily and the module can be aligned easily. UNLV working with Amonix will prepare a test plan. Before mounting the module, UNLV will install special instrumentation that might be required by the test plan such as thermocouples and voltage/current sensing wires. UNLV will install the module on the UNLV 7700 testing frame. UNLV will conduct the testing specified in the test plan at the required periodic interval. Task 2: Structure bending-The large Amonix 7700 structural system is subject to gravity and wind bending that affect the power/energy performance. Initial measurements (soon to be published) indicated various possible structural bending errors. UNLV will work with Amonix to develop tests to quantify the structural bending errors. UNLV will prepare a test plan for each test, fabricate any fixtures required, conduct the test, analyze and document the data. Task 3: Beam centroid measurements-UNLV has developed an instrument that can determine the position of the beam centroid on the surface of the cell. UNLV will install this system on the UNLV 7700 system, conduct measurements over several days, analyze the data, and document the results.	Amonix - Federal Pass Through	Boehm, Robert		163,500	7/31/2012
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium - Task 2.4 High Performance Wall Sections and Windows	It is proposed to develop both an interior testing evaluation facility as well as an on-sun evaluation facility to determine the performance of building facade components. Both window and wall types of sections will be the focus of this.	US Department of Energy	Boehm, Robert		199,761	9/30/2012
Clean Energy		UNLV		Southwest Solar Transformation Initiative (SSTI)	Project will be focused on documenting the current status and opportunity for advancing solar electricity adoption by reducing roadblocks and developing a roadmap for collaboration across communities in the Southwest. The following work will be done: Obtain appropriate administrative commitment and approvals for engaging the University in the agreed-upon research and analysis activities over the course of the Phase I performance period (December 2011-December 2012). Recruit and manage a limited number, (2-4) students to work on Phase I research and analysis activities. Provide for regular (estimated at every 2 weeks) check in calls with SEI/Optony staff in order to debrief on progress, identify/access resources, and consult on specific areas of research and analysis. Work with SEI/Optony to coordinate periodic campus payments related to Phase I support activities, that includes providing for channel to log/report student hours and associated tasks and to disburse periodic (every 2 weeks to once a month) student stipend payments. Provide for documentation of campus cost share in the form of in-kind services funded outside of any federal grants or other federal sources. Coordinate with SEI/Optony staff to digest and integrate students work into Phase I deliverables and presentation of findings back to regional teams (currently planned at the 6 month and 12 month mark). Consider and (if feasible) arrange for student intern presence at one of the final regional team presentations. Collaborate with SEI/Optony to identify and detail a potential campus role in Phase II activities (pending funding).	Strategic Energy Innovations	Boehm, Robert		16,932	2/28/2013
Clean Energy		UNLV		Cost of US Dependence on Foreign Oil	The Center for Business and Economic Research at the University of Nevada, Las Vegas to prepare a 20-25 page report about the consequences of U.S. dependence on imported oil for the National Energy Policy Institute. The report will survey the contemporary economic thinking about the costs of U.S. dependence on imported oil and whether recent oil market developments have significantly changed perspectives on this issue, with the goal of developing comprehensive modeling approach for estimating these costs in a manner that is well grounded in the economic literature. In addition, the report will present quantitative estimates of the annual per barrel costs of U.S. dependence on foreign oil for each year from 2010 through 2035.	National Energy Policy Institute	Brown, Stephen		25,000	8/31/2012
Clean Energy	Business IT Ecosystems	UNLV		Effects of US Tax Code on GHG	The National Academies Committee is mandated to estimate the greenhouse gas (GHG) emissions effects of current provision of U.S. tax law. The Committee seeks external modeling assistance to analyze a number of provisions under consideration. The scope of work for this modeling includes the following tasks: Task 1: Review and Planning of Needed Analyses; Task 2: Model Runs and Analyses; Task 3: Technical Memos.	National Academy of Sciences	Brown, Stephen		14,000	9/30/2012
Clean Energy		UNLV		09-315 Development of Alternative Technetium Waste Forms	In the US advanced fuel cycle program, the UREX+1 process is proposed to separate transuranic elements from spent nuclear fuel. The fission product Tc will be extracted into an organic phase containing tributylphosphate together with uranium within the first process steps.	Battelle Energy Alliance, LLC	Czerwinski, Kenneth		656,347	9/30/2012

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Clean Energy		UNLV		Development of a Synthetic Debris for Nuclear Forensics - Task 41	The radiochemistry focused research efforts performed by the University of Nevada, Las Vegas under the National Center for Nuclear Security will have four components: Task 1: surrogate Material synthesis and characterization. Task 2: Utilize collected Trinitite data. Task 3: Activation product analysis. Task 4: Rapid radiochemical separations. These efforts will be coordinated through the UNLV Radiochemistry program and exploit existing expertise in chemical speciation, radioelement materials synthesis, compound characterization, separations and radioisotope counting techniques. Materials will be prepared and characterization to provide data for the development of standards, rapid separations and crucial nuclear data. Irradiations will be performed in conjunction with NSTec utilizing their neutron sources, primarily supports Tasks 1 and 3. It is anticipated collaborations with DOE laboratories within the research areas will be pursued. The project will occur over a 36 month time frame.	National Security Technologies	Czerwinski, Kenneth		341,205	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Evaluation of Phases, Properties and Interactions in Uranium Metal and Cladding with Simulated Burnup	The research to be performed under this proposal will evaluate the influence of high burnup on fuel phases and fuel-cladding chemical interactions relevant to advanced, fast neutron spectrum nuclear reactors. The project will focus on evaluating material properties of U-Zr alloys during simulated burnup and interaction with HT-9 cladding material.	TerraPower, LLC	Czerwinski, Kenneth		865,000	9/30/2014
Clean Energy		UNLV		Graduate Student Fellowships for Radiochemistry Ph.D. Program at the University of Nevada, Las Vegas	The proposed fellowships will provide support for two graduate students in the UNLV Radiochemistry Program. The students will obtain a Ph.D. in Radiochemistry in one of the focus areas in the existing program. A primary goal of the studies in the UNLV Radiochemistry is to elucidate radioelement speciation under the full range of explored experimental conditions.	U.S. Department of Energy	Czerwinski, Kenneth		150,000	6/30/2017
Clean Energy		UNLV		IGERT: Returning the Radio to Chemistry	The stipend and participant support will support on PhD graduate student in the first year and 2 PhD graduate students in years 2-5. The student must be a US citizen or permanent resident as mandated by the grant. The student(s) will work on research projects that are collaborative with Memorial Sloan-Kettering Cancer Center and Hunter College or other institutions in the IGERT consortium. The PI and participating faculty from UNLV will send their students to the annual IGERT retreat at the ACS meeting. Also, the site PI, Professor Czerwinski and participating faculty from UNLV, will assist the IGERT PI and faculty in preparation of course material, setting up distance learning and conferencing sites for the academic institutions and other institutions. The site PI and UNLV faculty participants will assist in developing materials for the IGERT website.	Hunter College of CUNY	Czerwinski, Kenneth		128,700	6/30/2012
Clean Energy		UNLV		Radio Chemistry Fuel Cycle Summer School Program - 2012	The University of Nevada, Las Vegas (UNLV) will be responsible for conducting an intensive 6 week course in radiochemistry with a focus on the nuclear fuel cycle. The course is expected to introduce radiochemistry through the physics of radioactive decay and chemistry of radioelements, discussing the relationship between the periodic table and the chart of nuclides. The course should describe the chart of nuclides, detailing the information, concepts, and data used as foundation for exploring isotopes. Details on alpha decay, beta decay, gamma decay and fission should be presented. The methods and data from the investigation of nuclear properties, nuclear forces and nuclear structure are to be covered. The fundamental chemical properties in radiation and radiochemistry, including the relationship between speciation, kinetics and thermodynamics, the influence of radiolysis on chemistry, radioisotope production and separations, are to be explored. The use of radiochemistry in research and technology development should be covered with attention given to the nuclear fuel cycle. The proposed course will also leverage a recently developed lecture series on the modern nuclear fuel cycle that provides an explanation of radiochemical separations from fundamental chemistry to engineering applications. The course is envisioned to be comprised of both lectures as well as a laboratory component. UNLV staff should form the central core of the faculty for this program, with guest lecturers from universities and national laboratories providing background on the latest educational and research opportunities in this field. The school will be limited to about 12 undergraduate students, chosen from a national search. Academic credit for this program is anticipated.	Idaho National Laboratory	Czerwinski, Kenneth		250,000	12/30/2012
Clean Energy		UNLV		The Nuclear Science and Security Consortium - Nuclear Chemistry and Education	The Radiochemistry program at UNLV was started in 2004 and performs studies in a broad range of radiochemistry and nuclear science topics. The program, a partnership between the Chemistry Department and the Health Physics Department at UNLV, and administered through the Graduate School, offers the Ph.D. degree in Radiochemistry serves 24 students who work with faculty in nuclear fuel cycle radiochemistry, synthesis and characterization of radioelement containing materials, and develop of novel radioanalytical separations and methods. Professors in the program average around \$2M annual in federal and industrial grants in the program project areas including foundation science, the nuclear fuel cycle, environmental radiochemistry and nuclear forensics. The education and training program is known for rigorous, hands-on methods to prepare students for the research arena. As of October 2010, seven students have received a doctoral degree in Radiochemistry. National laboratory researchers and international institutions collaborate and partner with the Radiochemistry program. The current research direction of the UNLV Radiochemistry Program emphasizes evaluating the chemical forms, structure and coordination of radioelement containing compounds. A range of spectroscopic, radiochemical, scattering, microscopic and computational methods are used to examine these species. Three research areas are emphasized; radioelement compound synthesis and characterization, fuel cycle separations, and radioanalytical methods.	University of California, Berkeley	Czerwinski, Kenneth		378,189	6/30/2012
Clean Energy		UNLV		Solar Cell Nanotechnology	The objective of this project is to develop a low cost nanolithographic nanofabrication technology for the fabrication of thin film porous templates as well as uniform arrays of semiconductor nanostructures for the implementation of high efficiency solar cells. Solar cells based on semiconductor nanostructures are expected to have very high energy conversion efficiencies due to the increased adsorption coefficients of semiconductor nanostructures. In addition, the thin film porous template can be used for optimum surface texturing of solar cells leading to additional enhancement in energy conversion efficiency.	U.S. Department of Energy	Das, Biswajit		738,000	12/31/2012
Clean Energy	Logistics and Operations	UNLV		De-icing Study	Formulate a salt mixture that lessens the impact of sodium on roadside vegetation and soils in the Mt. Charleston area based on a three step approach. Step one would include field based assessment of salt accumulation in soils along roadside areas that naturally accumulated snow melt in the Mt. Charleston area. In addition, native vegetation would be analyzed for chemical composition in leaves and needles of the dominant species. Step two would involve a screening process conducted in a greenhouse at UNLV in which the dominant species would be grown as young seedlings and subjected to a range of salt loading mixtures. In step three, statistical techniques would be employed to determine the optimum salt mixture based on both plant response and the bulk cost associated with each individual salt.	Nevada Division of State Lands	Devitt, Dale		30,200	7/1/2012
Clean Energy		UNLV	Univ of Nevada, Reno	EPSCoR ISP - Great Basin Climatology	The overarching goal of this ISP is to demonstrate the quality and utility of the Nevada CAN data via analysis of multiple datasets from network instruments and observations in a collaborative interdisciplinary environment and communication of these results to the scientific and land management communities.	Univ. of Nevada, Reno	Devitt, Dale		23,000	9/30/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 4 (Water)	Setting up the highly instrumented transects in northern and southern Nevada. These transects will be used to assess the potential impact of global warming on water resources in Nevada.	NSF EPSCoR	Devitt, Dale		1,212,554	8/31/2012

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Clean Energy	Tourism, Gaming and Entertainment	UNLV		Selenium Whitney Drain Study	We propose to conduct a selenium monitoring study associated with the Whitney drainage system area. Water samples will be collected monthly from the Whitney drain and at least 6 monitoring wells up-gradient from the Whitney Drain and analyzed for selenite, selenate and total selenium.	So. Nevada Water Authority	Devitt, Dale		75,000	7/26/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education) - Undergraduate Research Opportunities Program (UROP)	Scholarship awards to students and materials and supplies funds for the faculty mentors.	NSF EPSCoR	Farley, John		62,115	8/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education) - Undergraduate Research Opportunities Program (UROP)	Scholarship awards to the students and materials and supplies funds for the faculty mentors.	NV System of Higher Education	Farley, John		25,800	8/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education) - Undergraduate Research Opportunities Program (UROP)	Student travel to Nevada Undergraduate Research Symposium hosted by the University of Nevada, Reno on April 18-19, 2012.	NV System of Higher Education	Farley, John		2,600	6/30/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education) - Undergraduate Research Opportunities Program (UROP)	This account is for Undergraduate Research Opportunity Scholars. It will include scholarship awards to the students and materials and supplies for the faculty mentors.	NV System of Higher Education	Farley, John		11,000	8/31/2012
Clean Energy		UNLV		Ethnoarchaeological Investigation of the Native Alaskan Seal Poke Storage System	Conduct ethnoarchaeological research of the Native Alaskan seal poke storage system. The seal poke storage system is a highly innovative and efficient subsistence technique and yet no scholarly research has been devoted to it. The primary goal of this study is to document how the pokes and storing facilities are manufactured and the health implications of changes in the storage of traditional foods. This is important to better identify and model storage facilities in the archaeological record as well as potential health implications of contemporary storage techniques.	National Science Foundation	Frink, Liam		132,118	7/31/2013
Clean Energy		UNLV		Natural Life History of Quagga Mussels (Dreissena Bugensis): Reproduction, Veliger Development and Settlement, Growth and Nutritional Status in Las Vegas Bay and Boulder Basin of Lake Mead	This collaborative project will investigate the life history of quagga mussels in Lake Mead through five objectives: 1) investigate the annual reproduction cycle of quagga mussels at different depths in Las Vegas Bay and Boulder Basin of Lake Mead. 2) determine the development and settlement of veligers in Las Vegas Bay and Boulder Basin to further address relatively lower abundance of quagga mussels in Las Vegas Bay compared to that in the open water of the Boulder Basin. 3) monitor the monthly growth and nutritional status of quagga mussels at different depths in Las Vegas Bay and Boulder Basin of Lake Mead. 4) Examine which environmental factor(s) are critical in determining the reproductive behavior of adults, development and settlement of veligers, and growth of quagga mussels in Las Vegas Bay and Boulder Basin of Lake Mead. Many environmental parameters are currently monitored by US Bureau of Reclamation, Southern Nevada Water Authority, and US Geological Survey. 5) compare the life history of quagga mussels in Lake Mead and Lake Michigan and find out what's the similarity and difference between these two regions.	National Park Service (DOI)	Gerstenberger, Shawn		114,016	1/30/2013
Clean Energy		UNLV		Quagga Mussel Research at Lakes Mead, Mohave and Havasu, Nevada	The purpose of this project is boater education and data collection using the protocols and format of the 100th Meridian Initiative at Lakes Mead, Mohave and Havasu in Nevada.	U.S. Fish & Wildlife Service	Gerstenberger, Shawn		28,750	12/31/2012
Clean Energy		UNLV		Weatherization and Energy Efficiencies for Healthy Homes-ARRA	The Nevada Healthy Homes Partnership Program of the Department of Environmental and Occupational Health (DEOH), at the University of Nevada Las Vegas, will assist the City of North Las Vegas in implementing weatherization/energy efficiency efforts to improve housing quality within Southern Nevada. Weatherization and energy efficiency efforts will be provided to low-income housing and will include activities, but not limited to, window and door replacement, window and door weather stripping, furnace tune-ups, vent checks and repair, structural fixes, solar screen replacement, energy efficient light bulb replacement or other energy/weatherization related repairs as deemed necessary by DEOH representatives.	City of North Las Vegas-FPT	Gerstenberger, Shawn		19,000	12/8/2012
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium - Task 4 Education and Workforce Development	This task will be used to advance the education of UNLV undergraduate and graduate students in renewable energy in such topics as research, technological advances, policy development, and implementation issues.	US Department of Energy	Giguët, Aurore		83,494	9/30/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Shivwits Research Project 2010 Field School	Conduct additional field work in 2011. NPS archaeologists and UNLV faculty and students will collaborate to continue archaeological field work to address research questions related to chronology, subsistence, seasonality and settlement patterns, and interaction and exchange including: excavations at two or more sites, revisit previously recorded sites, conduct additional survey, and geologic and soils studies.	National Park Service (DOI)	Harry, Karen		80,851	11/15/2014
Clean Energy		UNLV		Analysis and Characterization of Irradiated and Non-Irradiated Specimen Samples from the Advanced Test Reactor (ATR) - the Contribution of UNLV as a National Scientific Partner Facility (NSUF)	As part of the radiochemistry and nuclear engineering academic program at UNLV, a number of laboratory resources have been developed since 2003 to support experimental work with radioactive materials. Research activities with significant radioactive materials can be performed in the radiochemistry laboratories at the Harry Reid Center for Environmental Studies, with additional capabilities available for environmental samples in the Health Physics research laboratories, at the Science and Engineering Building (SEB)at UNLV. The overall goal of UNLV is to provide infrastructure and analytical support to researchers at the ATR NSUF in respect to their needs. Dr. Hartmann and Dr. Ma will coordinate and direct these efforts at UNLV.	Idaho National Laboratory	Hartmann, Thomas		20,330	9/30/2013
Clean Energy		UNLV		Idaho National Laboratory Joint Appointment Agreement	The overall goal of the collaboration outlined is to support the characterization and property analysis of transmutation fuels development investigated at INL.	Battelle Energy Alliance, LLC	Hartmann, Thomas		397,828	10/31/2012
Clean Energy		UNLV		Irradiation Testing and Molecular Modeling of Irradiation-Assisted Diffusion and Microstructural Evolution	The mission of the proposed work is to contribute to the development of advanced nuclear fuels in collaboration with the Nuclear Fuels and Materials Division of the Idaho National Laboratory. More specifically, the Subcontractor shall investigate interdiffusion phenomena in surrogate sub-systems of advanced transmutation fuels to allow for a refined understanding of useable lifetime of fuels and fuel components.	Battelle Energy Alliance, LLC	Hartmann, Thomas		327,516	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Microstructural Characterization of AS-Fabricated Fuel Plates	The mission of the proposed work is to contribute to the development of Low-Enriched Uranium (LEU) nuclear fuels in collaboration with the Idaho National Laboratory (INL). Specifically, the University of Nevada, Las Vegas (UNLV) will perform microstructural characterization of selected as-fabricated LEU monolithic U-Mo fuel plates for the Reduce Enrichment for Research and Test Reactors (RERTR) Program. The RERTR Fuel Development Program is developing the LEU nuclear fuels to replace existing High-Enriched Uranium (HEU) fuels currently used in some research reactors throughout the world. An important part of the fuel development program is irradiation testing of fuel plates in the Advanced Test Reactor (ATR). In order to successfully complete this testing and subsequent post-irradiation examinations (PIE), it is critical that the starting microstructures of the as-fabricated fuel plates be determined. This data will be used to generate required As-Fabricated Characterizations Summary Reports produced by the INL. This data will also be used to support generation of the RERTR Fuel Qualification Report. A variety of microstructural characterization techniques can be employed to adequately perform microstructural characterization. These techniques included, but are not limited to, optical metallography (OM), scanning electron microscopy (SEM), transmission electron microscopy (TEM), and X-ray diffraction (XRD).	Idaho National Laboratory	Hartmann, Thomas		100,001	12/1/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		The Experimental Synthesis and Characterization of Technetium (Tc) Bearing Binary and Complex Oxides	Our goal in this proposed research is to fabricate and characterize technetium-bearing fluorite derivative oxide compositions as candidate waste forms for disposition of technetium and other fission product elements from used nuclear fuel.	Los Alamos Nat'l Lab	Hartmann, Thomas		200,000	9/30/2012

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Clean Energy		UNLV	Nevada System of Higher Education	Biological Ca Isotopic Fractionation in Desert Soils as a Potential Biosignature	We propose to test Ca isotopic fractionation by biological soil crusts and the rhizosphere of creosote bushes as a potential biosignature in arid soils, such Ca isotopic fractionation might be preserved in paleosols, and which may be a good analog for martian soil processes.	NASA EPSCoR	Hausrath, Elisabeth		29,977	3/30/2013
Clean Energy		UNLV		CAREER: Linking novel thermophiles with ecosystem function: study of a model spring in Nevada	The project converges on four objectives: 1) To use spring chemistry to predict microbial metabolisms. 2) To determine which respiratory activities occur in situ. 3) To determine which organisms are primary producers and examine their potential activities using a sub-community transcriptomics approach. 4) To culture thermophiles in the laboratory and study them in mixed and pure culture.	National Science Foundation	Hedlund, Brian		841,632	8/31/2012
Clean Energy		UNLV	Desert Research Institute	Novel Thermophilic Microorganisms and Cellulases for Improving Second-Generation Biofuels Technologies - Task 1.1.2	The project focuses on degradation of a major agricultural waste, AFEX-treated corn stover and a major candidate non-food crop and industrial waste resource, poplar shavings.	US Department of Energy	Hedlund, Brian		157,559	9/30/2012
Clean Energy		UNLV		PIRE: Toward a Holistic and Global Understanding of Hot Spring Ecosystems: A US-China Based International Collaboration	This project builds on an existing foundation of collaboration between US and Chinese geobiologists to nucleate a large, international team to focus on the microbial diversity, biogeography, and ecosystem-level functioning within geothermal source pools in the largest hot spring complex in China, the Tengchong Geothermal Field in Yunnan Province. The long-term goal of this project is to develop a holistic and global view of geobiology in geothermal systems to complement and build upon what is known about life in other geothermal sites, such as Yellowstone National Park. In addition, US students and scientists will have a unique opportunity to experience the biologically, geologically and culturally-diverse regions in southwestern China and develop long-lasting international collaborations.	National Science Foundation	Hedlund, Brian	Montana State University Miami University Stanford University San Francisco State University Arizona State University University of Georgia Research Foundation Northern Arizona University California University - Fullerton	1,319,124	
Clean Energy		UNLV		PIRE: Toward a Holistic and Global Understanding of Hot Spring Ecosystems: A US-China Based International Collaboration - Participant Support	This project builds on an existing foundation of collaboration between US and Chinese geobiologists to nucleate a large, international team to focus on the microbial diversity, biogeography, and ecosystem-level functioning within geothermal source pools in the largest hot spring complex in China, the Tengchong Geothermal Field in Yunnan Province. The long-term goal of this project is to develop a holistic and global view of geobiology in geothermal systems to complement and build upon what is known about life in other geothermal sites, such as Yellowstone National Park. In addition, US students and scientists will have a unique opportunity to experience the biologically, geologically and culturally-diverse regions in southwestern China and develop long-lasting international collaborations.	National Science Foundation	Hedlund, Brian		75,023	7/31/2015
Clean Energy		UNLV		Working Toward a Competitive Secondary Biofuels Industry: Biochemical Characterization of Novel Thermophilic Cellulases	This proposal focuses on the expression and biochemical characterization of cellulose genes from a currently funded metagenomics project focusing on thermophilic cellulolytic microbial communities. Objective 1: Bioinformatic analysis of putative cellulase genes. Objective 2: Heterologous expression and characterization of novel cellulases.	U.S. Department of Energy	Hedlund, Brian		44,526	12/31/2012
Clean Energy		UNLV	NV System of Higher Education	DOE EPSCoR - Management - State Funds	The Project Director works with the Director of the Nevada EPSCoR Office and the staff of the Nevada EPSCoR office, the NSHE Research Affairs Council and NSHE faculty to accomplish the tasks listed. The general tasks are: (1) Engage NSHE faculty to compete for DOE EPSCoR solicitations; (2) Facilitate the solicitation process for the statewide solicitation (FOA from DOE) to include: engage external reviewers, facilitate panel review, organize reviewers comments; and (3) Ensure timely submission of the DOE EPSCoR statewide proposal and provide input and narrative for the program management; if applicable (4) develop a technical advisory committee for the DOE funded proposal and host an annual meeting with the committee and project team.	NV System of Higher Education	Hemmers, Oliver		14,745	6/30/2012
Clean Energy		UNLV		Gravity Insensitive Solid-Gas Sorption Climate Control System	The proposed project is the development of thermal management systems based on heat pumps that replace mechanical compressors with thermally driven sorption system of Solid-Gas Sorption Heat Pumps.	National Aeronautics and Space Administration	Hemmers, Oliver	Rocky Research	603,172	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		KIT-UNLV Cooperation Agreement	KIT and UNLV agree to jointly perform experiments to determine the electronic, chemical, and structural properties of selected materials and their surfaces. These materials will be conceived, synthesized, prepared, and pre-characterized at KIT, and further complementary characterization experiments will be performed at UNLV and, through the activities of the UNLV Chemistry Department, also at the ALS. Samples to be studied may include (but are not limited to) materials and thin film systems of relevance for energy conversion (batteries, fuel cells, and photovoltaic devices), nanomaterials, biomaterials, and materials for research on waste disposal issues.	Karlsruhe Institute of Technology	Heske, Clemens		1,396,284	12/31/2014
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Next Generation CdTe Photovoltaic Technology	Representative CdTe cells fabricated at Colorado State with the new deposition sources will be sent to UNLV for interfacial studies. For the CdS/CdTe interface, the UNLV group will cleave the completed cell laterally inside an oxygen-free glove-box environment and use its extensive array of analysis tools to characterize the electronic and chemical properties of the two exposed surfaces. The results of the studies will be discussed and fed back into the fabrication process in a rapid fashion. Process modifications will be proposed, and the UNLV characterization capabilities will be employed to monitor the impact of such process modifications. Professor Heske and the graduate student at UNLV will participate remotely in the research meetings and will attend the larger meetings in person.	Colorado State University	Heske, Clemens		128,475	7/31/2013
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Surface Validation: Physical and Electronic Characterization of Materials for Photoelectrochemical Hydrogen Production	The objective of this effort is to obtain advanced characterization of semiconductor samples of interest to NREL. The samples must have potential for deployment in photoelectrochemical water-splitting systems. Perform research to determine the chemical composition and bonding environment, electronic surface band gap, the band edge positions, work function, and surface morphology for samples produced at NREL and other members of the Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) photoelectrochemical working group.	Nat'l Renewable Energy Lab	Heske, Clemens		190,000	11/3/2012
Clean Energy		UNLV		The Separation and Analysis of Manufactured Nanomaterials in Environmental Samples	The contractor shall provide the necessary personnel, facilities, equipment, and otherwise do all things necessary for or incidental to the successful separation, characterization, and analysis of manufactured nanomaterials in environmental matrices selected from the following: surface, ground water, wastewater, plants and fish tissues, biosolids, sediments, and soils.	Environmental Protection Agency	Hodge, Vernon		119,765	8/30/2012

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Clean Energy		UNLV		Losing in Las Vegas: Educational Inequality, Ideology, and Reform in the West	To better understand the historical, social, and political contexts that have shaped decades of failed education reform in West Las Vegas, the purpose of this case study is to examine the social and community forces located at the intersection of educational inequality, ideology, and district-led school reform efforts designed to equalize educational opportunities for children in historically underserved communities.	Spencer Foundation	Horsford, Sonya		37,500	6/30/2012
Clean Energy		UNLV		Energy Education - Southwest Gas	Continue a cooperative agreement between UNLV and SWG that was established to train educators and students. Energy education will be provided to teachers, students and selected residents within the SWG service area.	Southwest Gas Corp	Jacoby-Garret, Paula		36,000	6/30/2013
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessing the Occurrence and Prevalence of an Emergent Disease Agent (Batrachochytrium Dendrobatidis) in Anuran Populations within Southern Nevada	One of the first steps in understanding the impact of Bd (batrachochytrium dendrobatidis - a casual agent of disease in amphibians) on anuran species in southern Nevada is to document its occurrence within the region and to determine prevalence in particular systems. Herein we propose to conduct such sampling. We will sample at numerous sites across the region in an attempt to simply document occurrence. For a few important anuran populations, we will conduct more intensive sampling to actually determine prevalence with statistical assurance - which could include the documentation of no occurrence. Sampling will be targeted during cooler seasons when Bd is expected to be most prevalent; however, if documented in the region, our objective is to determine changes in prevalence within a population between cool and hot seasons.	Nevada Div. of Wildlife	Jaeger, Jef		25,165	6/30/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessment of Desert Bighorn Sheep on Desert National Wildlife Refuge, Nevada: Phase 1	The following activities are added - Provide a retrospective vegetation analysis of vegetation changes on the DNWR and use it to aid in the development of the predictive habitat models. Utilize aerial and satellite imagery over the last several decades (potentially dating back to the 1950s) to assess landscape scale changes in vegetation structure that may have contributed to wildlife changes and impact fire regimes. Such change may have been facilitated, or exacerbated, by climate change. This research will take advantage of recent efforts to develop high resolution vegetation maps of current conditions in order to identify medium-resolution spectral patterns of biologically significant vegetation characteristics that can then be assessed backwards through time.	U.S. Fish & Wildlife Service	Jaeger, Jef		117,942	12/31/2014
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Conservation Actions for the Relict Leopard Frog at Lake Mead National Recreation Area	Conduct monitoring, research, and management activities for the relict leopard frog (Rana onca), a species of conservation concern covered by the Clark County Multiple Species Habitat Conservation Plan and managed under a cooperative strategy with the Relict Leopard Frog Conservation Team. The project outlined here is intended to implement and coordinate management, monitoring and conservation actions for R. onca as outlined in the cooperative strategy, with the goal of conserving existing relict leopard frog populations and establishing new populations. Important conservation actions for the relict leopard frog are annually cyclical in nature, generally beginning in very early spring and ending in December of each year. This project is intended to include: monitor existing natural populations; monitor experimental populations, identify and implement management actions to improve or mitigate habitat conditions at existing sites; manage a headstarting program to raise eggs collected from wild frogs to later stages for translocation to new sites; and assist efforts by land managers in overall management for R. onca through identification of new sites for translocations, and coordinating and documenting activities of the interagency Relict Leopard Frog Management Team.	National Park Service (DOI)	Jaeger, Jef		240,000	3/31/2014
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Conservation Actions for the Relict Leopard Frog at Lake Mead National Recreation Area Matching Project	The project is intended to implement and coordinate management, monitoring and conservation actions for R. onca, with the goal of conserving existing relict leopard frog populations and establishing new populations. Important conservation actions for the relict leopard frog are annually cyclical in nature, generally beginning in very early Spring and ending in December each year. This project is intended to implement conservation actions for a period of three years (from 2011 through 2013).	NV Department of Wildlife	Jaeger, Jef		109,996	6/30/2014
Clean Energy		UNLV		Development of a Habitat Management Plan to Maintain Viability of Desert Bighorn Sheep Population in the River Mountains, Nevada: Analysis of Mitochondrial DNA Diversity and Connectivity	The research proposed is designed to provide information for the development of an interagency adaptive habitat plan for long-term management of the River Mountain bighorn sheep population.	National Park Service (DOI)	Jaeger, Jef		101,842	6/30/2012
Clean Energy		UNLV		Relict Leopard Frog	Conduct mark-recapture estimates simultaneously with visual encounter survey at a minimum of four sites selected to represent different habitat conditions for areas occupied by natural and experimental populations of the species.	U.S. Fish & Wildlife Service	Jaeger, Jef		37,835	9/30/2013
Clean Energy		UNLV		Collaborative Research: Ocean Redox Evolution at the Dawn of Animal Life: An Integrated Geological and Geochemical Study of the Ediacaran Yangtze Platform in South China	We propose an integrated sedimentological, geochemical, and paleobiological study across two platform-to-basin transects of the Ediacaran Yangtze platform to test the following hypotheses....	National Science Foundation	Jiang, Ganqing		154,613	7/31/2012
Clean Energy		UNLV		Collaborative Research: Testing Himalayan Tectonic and Erosional History via Chronostratigraphic Correlation Between the Lesser Himalaya and Indian Craton	Expand approach in order to test a reigning paradigm in Himalayan geology, namely that specific geochronological and geochemical signatures are unique to the LH, and distinguish this lithotectonic zone from other zones.	National Science Foundation	Jiang, Ganqing		55,459	9/30/2014
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Development of Thermal Transient Flow Rate Sensors for High Temperature, Irradiation, Corrosive Environment	In an advanced very high temperature reactor (VHTR), the coated particle fuel is burned in a graphite-moderated reactor that is cooled with special coolants. One type of coolant materials that has been actively researched on is liquid fluoride salt, which unfortunately is very corrosive to structure material. As such and also caused by the extreme operating environment imposed by the reactor, including high radiation level, and high temperature (outlet temperature is up to 1000C), most existing instruments will fail to function reliably. In order to improve monitoring capability and system reliability in a nuclear reactor, research and development of salt-wetted instrumentation for both operations and maintenance is required. This proposal addresses one such equipment that is used to perform on-line, long term measurement of coolant flow rates.	Battelle Energy Alliance, LLC	Jiang, Yingtao		344,318	9/30/2013
Clean Energy		UNLV	Desert Research Institute	Enabling Technology for Solar Energy Development in Nevada - Task 2.8.2	Large-scale solar facilities where trackers/heliostats are used to concentrate sunlight onto a collector have the potential to be the most economical arrangement for solar power generation. This project examines cost reductions of those facilities through three types of improvements. First, we examine the potential benefits of encasing heliostats within protective domes, which reduce the structural, mechanical, and electrical requirements for tracker mechanisms. Second, we examine a system that separates the high-load function of moving large numbers of heliostats from the low-load, high-precision function of fine tuning the heliostat operation. Third, we examine the coupling between windblown dust and the presence of large-scale solar installations not only from the perspective of how best to keep optical components free of dust, but also from the perspective that it may be possible to stabilize degraded land simply by installing solar arrays.	US Department of Energy	Johnson, Allen		145,424	9/30/2012
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium - Task 2.3 Solar Research Tower	UNLV researchers will design a 1-15 MW solar tower research facility to be located in or near Las Vegas, as well as investigate several novel solar tracker mechanisms to incorporate and test at the facility.	US Department of Energy	Johnson, Allen		199,762	9/30/2012

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Clean Energy		UNLV		Smart Grid WNM Communication Algorithm Support - Task 29	The School of Computer Science at UNLV shall provide laboratory space, faculty and computational assets in order to: 1)Develop low-cost secure Smart Grid WNM algorithm and 2)Build a demonstration platform for SDRD (RSLN-01-12).	National Security Technologies	Kim, Yoohwan		36,000	9/30/2012
Clean Energy		UNLV		Collaborative Research: Paleoclimate and Cultural Change in Mesoamerica: Testing the Hypothesis of an El Nino/Southern Oscillation Forcing of Late Holocene Rainfall Variability	The objective of this proposal is to develop several high-resolution (~2 to 5 yr), time-overlapping and replicated d18O records over the past five millennia from U-series dated stalagmites collected in an ENSO-sensitive region of southwestern Mexico. The data will test the hypothesis that southern Mexico experienced prolonged wet conditions during the MCA, coincident with a more La Niña-like state of low sea surface temperatures in the eastern Pacific Ocean.	National Science Foundation	Lachniet, Matthew		346,491	5/31/2013
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium: Task 2.2 Enabling Technology for Solar Energy Development in Nevada	Large-scale solar facilities where trackers/heliostats are used to concentrate sunlight onto a collector have the potential to be the most economical arrangement for solar power generation. This project examines cost reductions of those facilities through three types of improvements. First, we examine the potential benefits of encasing heliostats within protective domes, which reduce the structural, mechanical, and electrical requirements for tracker mechanisms. Second, we examine a system that separates the high-load function of moving large numbers of heliostats from the low-load, high-precision function of fine tuning the heliostat operation. Third, we examine the coupling between windblown dust and the presence of large-scale solar installations not only from the perspective of how best to keep optical components free of dust, but also from the perspective that it may be possible to stabilize degraded land simply by installing solar arrays.	US Department of Energy	Lee, Joon		55,688	9/30/2012
Clean Energy		UNLV		Development of Biofuels Using Ionic Transfer Membranes	Development of a tubular NaSICON (Sodium Super Ionic Conductors) membrane process that produces high-purity sodium methoxide from low-cost aqueous sodium hydroxide.	U.S. Department of Energy	Lipinska-Kalita, Kristina		1,292,612	9/30/2012
Clean Energy		UNLV		Hollow Glass Microspheres	The objective of this research project is to fabricate and study new types of glass-based materials that could be promising candidates for hydrogen storage media.	U.S. Department of Energy	Lipinska-Kalita, Kristina		523,325	10/31/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Development of Thermal Transient Flow Rate Sensors for High Temperature, Irradiation, Corrosive Environment	In an advanced very high temperature reactor (VHTR), the coated particle fuel is burned in a graphite-moderated reactor that is cooled with special coolants. One type of coolant materials that has been actively researched on is liquid fluoride salt, which unfortunately is very corrosive to structure material. As such and also caused by the extreme operating environment imposed by the reactor, including high radiation level, and high temperature (outlet temperature is up to 1000C), most existing instruments will fail to function reliably. In order to improve monitoring capability and system reliability in a nuclear reactor, research and development of salt-wetted instrumentation for both operations and maintenance is required. This proposal addresses one such equipment that is used to perform on-line, long term measurement of coolant flow rates.	Battelle Energy Alliance, LLC	Ma, Jian		106,951	9/30/2013
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium - Task 1.3 Algal Based Fuels	All three NSHE research institutions have on-going RandD related to algal fuels. DRI is exploring the potential of utilizing geothermal fluids for growing algae; UNR is developing modified algal strains to maximize lipid productions; UNLV is working on various engineering aspects related to efficient use of light and improved harvesting techniques. This task will support these on-going activities, help coordinate the work of all three institutions, and extend this work in several new directions.	US Department of Energy	Ma, Jian		143,311	9/30/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCOR RII UNLV Task 5 (Policy and Outreach Component)	The objective of this component is to develop data collection, modeling, and visualization tools to better understand institutional and societal aspects of climate change and perform outreach to translate and communicate this science.	NSF EPSCoR	Neill, Helen		1,304,321	6/30/2013
Clean Energy		UNLV		Mapping the Physical Properties of the Surface Layer with Remote Sensing and Spectroscopic Field Measurements for Habitat Modeling in the Mojave Desert Ecoregion	This proposed research builds upon the PI's prior experience in the area of thermophysical modeling and mapping, and seeks to extend this methodology to geomorphic surfaces that can be studied using currently available datasets collected by NASA Earth Observing System satellites over the past decade. The impact of surface materials and surface changes to habitat modeling has been underdeveloped due to the lack of quantitatively derived mechanical composition datasets. Therefore, this project is aimed at mapping surfaces within the Mojave Desert at a high spatial resolution and large spatial extent, utilizing multiple wavelengths from visible to thermal infrared. The result will be the development of quantitative datasets that can be further utilized in habitat models to better understand the dynamic surface processes that are influencing the current and possible futures distributions of threatened species in the Mojave Desert Ecoregion.	U.S. Geological Survey	Nowicki, Scott		64,625	12/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCOR RII UNLV Task 7 (Education - Curriculum Development Project)	Disburse subawards to Great Basin College and to the University of Nevada, Reno for Curriculum Development Awards.	NV System of Higher Education	Nussbaum, Edward	University of Nevada, Reno Great Basin College	60,000	8/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCOR RII UNLV Task 7 (Education)	The Education Component has several tasks that will involve faculty from UNLV, UNR, DRI and NSC. These include K-12 section: An annual workshop and course for cohorts of Nevada Middle School Teachers. Undergraduate Research component: School-year and summer competitive research funding opportunities for students working on climate change and other STEM research projects. Graduate Research component: Competitive graduate assistantships for students doing work related to climate change. A curriculum component which will develop courses on, an undergraduate minor in and a graduate certificate in climate change.	NSF EPSCoR	Nussbaum, Edward		234,407	8/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCOR RII UNLV Task 7 (Education) - Losing the Lake: Promoting Sustainability Awareness Through Educational Computer-Simulations of Lake Mead Water Levels and Water Supply to the Las Vegas Valley	Goal 1: Link climate models and water flow simulations for education purposes. Goal 2: Design a serious, learning-appropriate simulation game. Goal 3: Build on existing EPSCoR infrastructure. Goal 4: Utilize the simulation game to promote educational outreach.	NV System of Higher Education	Nussbaum, Edward	University of Nevada, Reno	99,686	6/30/2012
Clean Energy		UNLV		Collaborative Research: Advancing Chemistry by Enhancing Learning in the Laboratory (ACELL)	The two main goals of this project are: to provide for the professional development of chemistry faculty by expanding their understanding of issues surrounding learning in the laboratory environment; to facilitate the development of a community of practice of laboratory educators by providing mentoring in educational theory and practice, regular workshops, and a presence at scheduled chemical education conferences.	National Science Foundation	Orgill, MaryKay		97,158	8/31/2013
Clean Energy		UNLV		UNLV Canopy GIS Development	In this proposal, the mapping of landcover classes for the CityGreen analysis for the Las Vegas Canopy Study is presented. Aerial imagery acquired by the National Agricultural Imaging Program during 2006 will be used and landcovers of 1)Bladed Ground, 2)Barren Ground, 3)Open Space, 4)Parking lots, 5)Buildings, and 6) Water Features, will be mapped. The maps will be prepared using Geographic Information System (e.g. ArcGIS shapefiles) containing geometry (shapefiles with polygons) of these landcover types. In the digitization of landcover classes, necessary QA/QC will be performed to assure the accuracy of mapping. The resulting product will be furnished with FGDC compliant standard metadata.	Nevada Division of Forestry	Palmer, Craig		72,100	12/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	EPSCoR Urban Water ISP	This project focuses on the impact of climate change on water systems in urban areas of Las Vegas Valley and Reno as critical case studies for understanding water management in arid regions. The emphasis of the research will be on linking climate models with water supply (e.g., hydrologic scenarios) and demand, and how water managers use information within the decision-making process.	NSF EPSCoR	Piechota, Thomas	University of Nevada, Reno Desert Research Institute	148,000	8/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	EPSCoR Urban Water ISP - Hosting	Hosting activity on Integrative Science Project.	NSF EPSCoR	Piechota, Thomas		2,000	8/31/2012

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Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCOR RII UNLV Task 1 (Admin)	The work required for this task includes overall management of UNLV PIs, acting as a Liaison for the Policy and Outreach, and Water Components of the project, and other project-wide PI responsibilities.	NSF EPSCoR	Piechota, Thomas		155,674	8/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education)	Repost funds for the Nevada EPSCoR Graduate Student Research Assistants.	NV System of Higher Education	Piechota, Thomas		217,420	8/31/2012
Clean Energy		UNLV		Resource Conservation and a Sustainable Las Vegas - Tasks 2, 3, 4	This research project will develop educational, research, and outreach activities that address the challenges of Las Vegas related to a secure energy supply through conservation, clean and adequate water supply, economic growth and diversification, air quality, and the best use of land, and usable public places.	U.S. Department of Energy	Piechota, Thomas		244,992	5/31/2013
Clean Energy		UNLV		University of Nevada, Las Vegas Water in the 21st Century Multi-Disciplinary Research Project	The main objectives of this research are to (1) support graduate students working on sustainability research; (2) provide seed grants to interdisciplinary research teams that are evaluating the energy/water relationships for sustainability; (3) host a regional workshop on sustainability.	U.S. Department of Energy	Piechota, Thomas	Clark County School District	300,413	5/31/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Information Management Research and Development Support for Forest Inventory Analysis (FIA) National Information Management Systems (NIMS)	Tasks to support the National Inventory and Monitoring Applications Center (NIMAC) include but are not limited to continued support to Wisconsin Continuous Forest Inventory (WisCFI) database, website and web tools. And UNLV will provide Project Management for the Development of the Design and Analysis Tools for Inventory and Monitoring (DATIM) development effort. Resources will primarily be the UNLV staff, with some additional support from other sources.	U.S. Forest Service	Pollard, James		2,059,414	6/30/2013
Clean Energy		UNLV		Nuclear Science and Security Consortium - Nuclear Chemistry and Education	Develop ION Beam Nuclear Transmutation Doping (IBNTD) (US patent 7,795,120) as a viable method to produce sturdy, compact and precision-layer-doped wide bandgap devices to be used for direct energy conversion (DEC) to harness energy from spent nuclear fuel and as rugged sensors for monitoring extreme conditions inside a nuclear reactor and waste site and also to be used for precision devices to measure extreme environments (such as in a nuclear reactor).	University of California, Berkeley	Pravica, Michael		189,157	6/30/2016
Clean Energy		UNLV		Nevada Retrofit Initiative	Conduct focus group meetings and market surveys to define targeted neighborhoods; assist in critic of marketing plan; assist in evaluation of market plan results; evaluate survey results; repeat surveys for new neighborhoods as identified.	Nevada Office of Energy	Priest, Susanna		100,000	12/31/2012
Clean Energy		UNLV		Administrative Assistant Support Services	Provide administrative assistant support services. The contractor shall provide personnel possessing the skills, knowledge and training to satisfactorily perform the non-personal, administrative support services required under this contract. The work contributes to the effective performance of the Wilderness Stewardship program. Duties and support functions have an impact on administrative Wilderness Stewardship operations. Contacts serve to provide and exchange information, improve work efforts, ensure proper reporting procedures, and facilitate daily operations.	National Park Service (DOI)	Rees, Margaret		10,325	10/31/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Custodianship of the Walking Box Ranch Property	This Agreement entered into by the Department of Interior, Bureau of Land Management (BLM) and the University of Nevada, Las Vegas (UNLV), is to collaboratively engage in protection of the existing structures and property at Walking Box Ranch and provide for the continued use of the facilities for scientific research and public use.	U.S. Bureau of Land Management	Rees, Margaret		1,099,994	9/11/2013
Clean Energy		UNLV		Limnological Assistance for Lake Mead National Recreation Area	Continue to provide technical assistance with specific aspects of limnological-related resource management stemming from the Limnological Assistance for Lake Mead National Recreation Area Task Agreement. Specifically, provide analysis of mercury contamination in peregrine falcons within Lake Mead National Recreation Area (Lave Mead NRA).	National Park Service (DOI)	Rees, Margaret		460,735	11/30/2012
Clean Energy		UNLV		Nevada Interagency Volunteer Program: Helping Hands Across Public Lands - Phase II	The project is designed to recruit, train, manage, recognize, and retain community members to (1) conduct interagency conservation projects on federal public lands in Clark County, Nevada and (2) serve as voluntary workforce to support federal land management agency projects in Clark County, Nevada.	National Park Service (DOI)	Rees, Margaret		1,487,286	12/31/2012
Clean Energy		UNLV		Southern Nevada Agency Partnership, Cultural Site Stewardship Program - Steward Retention and Program Transfer	This is a collaborative project designed to recruit, train, manage, and retain community members to serve as a voluntary workforce to regularly monitor assigned cultural sites on federal public lands in Clark County, Nevada to include but not limited to Red Rock Canyon National Conservation Area, Sloan Canyon National Conservation Area, Spring Mountains National Recreation Area, Lake Mead National Recreation Area, Desert National Wildlife Complex and other lands managed by the Bureau of Land Management and other federal agencies. Cultural resource sites throughout the county continue to sustain damage from both natural and human elements, particularly as development presses against the boundaries of federal public lands. Site stewards are: (1) assigned one or more at-risk sites to visit on a regular basis (no less than monthly), (2) trained to record observations, and (3) required to report minor and major impacts to federal authorities. Under the direction of the Interagency Cultural Site Stewardship Team (ICSST), this project will transfer appropriate program information to the entity selected by the ICSST to manage the program. The National Park Service has been designated the lead agency for the ICSST. The program benefits cultural resources on public lands by providing the ability to monitor more at risk cultural sites. The public outreach through the Cultural Site Stewardship Program increases public awareness of the significant value of heritage resources and existing state and federal laws pertaining to historic preservation.	National Park Service (DOI)	Rees, Margaret		150,000	3/1/2013
Clean Energy		UNLV		Take Pride in America - Phase III	In partnership with the BLM the recipient will further develop the community-driven Take Pride in America partnership in southern Nevada to decrease litter and desert dumping through continued education, clean-ups, and comprehensive messaging campaign that was initiated in Southern Nevada Public Land Management Act (SNPLMA) Round 4 and 5 Conservation Initiative category. The project will continue to provide the necessary equipment required for litter collection including dumpsters and trash bags at key locations. Through continued Messaging, volunteer clean-ups, delivering of GIS data base and education the public lands will improve through stability of lands, watersheds and trash removal. Many of the troubled parcels are surrounded by private home owners and business. Continuing the implementation of Don't Trash Nevada will build further stewardship of public lands, and improve vacant lots and improve property values in these areas. The parcels will become safer to recreate on once trash is removed. The public is less likely to further damage sites when the attractive nuisance is removed, further improving public lands for the use of all public and other authorized uses.	U.S. Bureau of Land Management	Rees, Margaret		729,419	9/30/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Walking Box Ranch Research and Training Center and Museum Project Planning and Design	This Agreement, entered into by the Department of Interior, Bureau of Land Management (BLM), and the University of Nevada, Las Vegas (UNLV), is to collaboratively engage in conceptual planning and design and the associated environmental assessments for the Walking Box Ranch Field Research and Training Center on the 40-acre "Headquarters Parcel" of the Walking Box Ranch, as well as planning and design for the restoration, enhancement, and protection of the historic ranch property buildings for the Walking Box Ranch Museum. The agreement will also facilitate consultation between the BLM and UNLV during the construction phase of the facilities.	U.S. Bureau of Land Management	Rees, Margaret		2,599,996	9/12/2013
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCOR RII UNLV Task 3 (Ecological Change)	Serving as the UNLV member of the Ecological Change Steering Committee.	NSF EPSCoR	Riddle, Brett		25,394	8/31/2012

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Clean Energy		UNLV		Southern Nevada District Office - Plant Conservation Program: Restoration and Youth	Provide a foundation for successful implementation of a collaboration between the University of Nevada, Las Vegas Wesley E. Niles Herbarium and the Task 2: Plant Taxonomic Identification and Herbarium Management, of the BLM SINDO Plant Conservation Program: Restoration and Youth. The overall goal of Task 2 is to provide opportunities to youth and interns to gain experience in plant identification and herbarium management in an academic setting in the Las Vegas Valley. The Niles Herbarium provides the unique and ideal academic setting for reaching these goals. However in order to do so, the Niles Herbarium must be staffed at a minimum level of an expert part-time plant curators and a collections manager. We seek funding to retain such a position through collaboration with the BLM.	U.S. Bureau of Land Management	Riddle, Brett		30,000	5/31/2016
Clean Energy		UNLV		Household Organization During the Pithouse Period at the Harris Site, Mimbres River Valley, New Mexico	This project will address two primary research topics: The first is household organization during the Pithouse period. The second research topic will examine the relationship between sedentism, subsistence strategies, and household organization.	National Science Foundation	Roth, Barbara		171,400	1/31/2013
Clean Energy		UNLV	Desert Research Institute	Solid State Organic PV Cells-Field Evaluation of the Cells - Task 2.6.2	This project will assess the field performance of dye sensitized solar cells compared to the crystalline silicon based PV cells.	US Department of Energy	Sadineni, Suresh		71,421	9/30/2012
Clean Energy		UNLV		Technical and Financial Feasibility of Solar Projects in India	1. the evaluation of solar resources at various strategic locations of the country. 2. study the technical feasibility of various solar technologies 3. study the financial feasibility of the considered solar technologies for application in Indian conditions. 4. submit the final report at the end of project period.	Greenway Solar Pvt Ltd	Sadineni, Suresh		25,844	7/31/2012
Clean Energy		UNLV	Desert Research Institute	Biomass and Biofuel Production from Planet Species Suited for Nevada's Arid Environment - Task 1.4.2	The goals of this research are to develop the agronomic expertise to grow <i>Grindelia squarros</i> (gumweed) and <i>Euphorbia lathyris</i> (gopherweed) in both Northern and Southern Nevada and develop the infrastructure to process these and other energy crop species for liquid fuel production and direct thermal conversion to electricity.	US Department of Energy	Shen, Jeffery		76,512	9/30/2012
Clean Energy		UNLV		WRKY Transcription Factors that Regulate Plant Responses to Drought Stress: Tools to Aid Plant Productivity Enhancement	Oligoarray analysis of rice drought-regulated genes. Analysis of rice promoters from drought-regulated WRKY genes using MEME, MotifSampler and other bioinformatic tools. Produce and analyze rice OsWRKY74 and -84 overexpression and knockdown mutants. Working with PD to correlate all results to determine drought-responsive WRKY genes and related cis-acting promoter elements, and to predict about drought responsive WRKY genes in other crop plants.	South Dakota State University	Shen, Jeffery		138,201	7/13/2012
Clean Energy		UNLV		Ais Giorkis: A Rare Upland Cypriot Neolithic Community: Testing Ground Penetrating Radar Results to Support Additional Research	The past 20 years have revolutionized our understanding of the early colonization of the Mediterranean islands, with Cyprus playing a key role. Recent investigations have documented unexpectedly early Neolithic occupations that set the framework for the subsequent development of complex civilizations on the island. In particular, an early Neolithic occupation termed the Cypro-PPNB has extended the time depth of the Neolithic. Ais Giorkis is one of a handful of sites belonging to this period, and has been under investigation for several seasons; we anticipate another major campaign in 2012. To do so requires support from the National Science Foundation (NSF), which has funded much of the earlier investigation. This request to the Brennan Foundation is for a brief study in 2011 to enhance data robusticity for an NSF proposal.	Brennan Foundation	Simmons, Alan		5,000	5/24/2012
Clean Energy		UNLV	Nevada System of Higher Education	Biotic Processes Regulating the Carbon Balance of Desert Ecosystems - DOE FACE 2	Our overall objectives are to develop and apply modern statistical methods for synthesizing existing data from 10 years of the FACE experiment with new data from the final harvest/analyses within the context of process-based models developed by Kiona Ogle, University of Wyoming, who would join our team. This data-model synthesis approach will allow us to infer the impacts of elevated CO2 in combination with natural precipitation variability, on multiple, interconnected ecosystem processes related to carbon, water and nutrient cycling across a range of time scales.	US Department of Energy	Smith, Stanley		1,053,187	9/14/2012
Clean Energy		UNLV		Scratching the Surface at Joshua Tree National Park: Introducing Non-Vascular Plants to the Public - Bryophyte Component	This project is a collaborative effort between the University of Nevada, Las Vegas (UNLV) and National Park Service staff at Joshua Tree National Park (JOTR) and complements a concurrent CESU Task Agreement involving lichens in JOTR. Both projects are intended to contribute to further understanding of species distribution, habitat specificity, and conservation of bryophytes and lichens throughout the region. There are three objectives for this project: (1) develop educational materials on bryophytes to be used in a variety of formats, including printable brochures, web-based photo gallery, poster exhibits, wayside exhibits, or other interpretive materials as deemed appropriate by the Interpretive Division; (2) develop a long-term monitoring project involving Citizen Scientists that measure bryophyte diversity and cover within JOTR; and (3) develop a printable checklist of the non-vascular species found within the park and update the NPSpecies database.	National Park Service (DOI)	Stark, Lloyd		44,433	4/1/2013
Clean Energy		UNLV		Web-Based Simulations for Communicating Sustainability Issues to Stakeholders	This research project addresses the need to improve public outreach and education about sustainability. Specifically, we aim to develop best practices for using web-based simulation models to communicate sustainability issues between policy-makers and the general public. This is an applied research project focused on Southern Nevada, but the results from the research will have broader implications. As an applied project, this has multiple benefits. First, it provides new technology and educational materials for engaging the public in discussions about sustainability in Southern Nevada. Second, the research results will help improve communication of complex environmental issues to the public.	U.S. Department of Energy	Stave, Krystyna		50,993	12/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 4 (Water) Faculty Start Up	Start up funds for new faculty hire. Setting up the highly instrumented transects in northern and southern Nevada. These transects will be used to assess the potential impact of global warming on water resources in Nevada.	NSF EPSCoR	Stephen, Haroon		96,750	8/31/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV	Desert Research Institute	Synthesis and Characterization of Novel (IV, II) VI Group Materials for Solar Energy Utilization - Task 2.7.2	The search for new sources of clean energy is rapidly becoming one of the most pressing technological challenges that we are facing today. Still development of inexpensive methods for synthesizing materials that demonstrate both visible light activity and high solar energy utilization along with stability is a challenge. This project will address this critical challenge by focusing on optical, electronic, and catalytic properties of crystalline/polycrystalline and amorphous galena doped by zinc thin films/composites/nano-particles.	US Department of Energy	Stoite, Wayne		100,863	9/30/2012
Clean Energy		UNLV		09-442 Rapid Automated Dissolution and Analysis Techniques for Radionuclides in Recycle Process Streams	The project will focus on identification of radiochemical separation procedures for the analysis of nuclear fuel processing samples that show the potential to be implemented on an automation platform.	Battelle Energy Alliance, LLC	Sudowe, Ralf		378,213	9/30/2012
Clean Energy		UNLV		Development of a Synthetic Debris for Nuclear Forensics - Task 41	The radiochemistry focused research efforts performed by the University of Nevada, Las Vegas under the National Center for Nuclear Security will have four components: Task 1: surrogate Material synthesis and characterization. Task 2: Utilize collected Trinitite data. Task 3: Activation product analysis. Task 4: Rapid radiochemical separations. These efforts will be coordinated through the UNLV Radiochemistry program and exploit existing expertise in chemical speciation, radioelement materials synthesis, compound characterization, separations and radioisotope counting techniques. Materials will be prepared and characterization to provide data for the development of standards, rapid separations and crucial nuclear data. Irradiations will be performed in conjunction with NSTec utilizing their neutron sources, primarily supports Tasks 1 and 3. It is anticipated collaborations with DOE laboratories within the research areas will be pursued. The project will occur over a 36 month time frame.	National Security Technologies	Sudowe, Ralf		227,942	9/20/2012
Clean Energy		UNLV		Neutron Capture Measurements on Tm-171 and Pm-147	The objective of the proposed project is to study neutron capture reaction on Tm 171Tm and 147Pm using the Detector for Advanced Neutron Capture Experiments (DANCE) at the Manuel Lujan Jr Neutron Scattering Center at the Los Alamos Neutron Science Center (LANSCE) and to measure the respective neutron capture cross sections for these isotopes.	National Nuclear Security Administration	Sudowe, Ralf		600,000	1/10/2013

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Clean Energy		UNLV		Efficient Numerical Techniques of Two-Phase Transport Model in the Cathode of Hydrogen Polymer Electrolyte Fuel Cell - ARRA	The purpose of this project is to develop advanced efficient computational techniques in order to perform efficient, accurate and state of the art simulations for two-phase transport model in the cathode of hydrogen polymer electrolyte fuel cell (FEPC).	National Science Foundation	Sun, Pengtao		90,000	8/31/2013
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessment of Desert Bighorn Sheep on Desert National Wildlife Refuge, Nevada: Phase 1	The following activities are added - Mule deer will be collared with GPS transmitters to allow researchers to estimate the numbers of mule deer on the Sheep Range and monitor their movements and predation/mortality events. This will help understand how mountain lions are choosing deer versus bighorn sheep as prey.	U.S. Fish & Wildlife Service	Thompson, Daniel		221,718	12/31/2014
Clean Energy		UNLV		Spring Mountain Butterfly Life History and Autecology Studies	Additional funding for additional fieldwork - more surveying of the south loop.	U.S. Forest Service	Thompson, Daniel		523,802	3/31/2013
Clean Energy		UNLV		CAREER: Protein Metabolism in Mammalian Hibernation	1) Describe the mechanism of translational arrest in hibernators through use of an in vitro translation assay that will allow for direct assessment of initiation and elongation as well as the role of IRES-mediated initiation of translation under the conditions of torpor. 2) Use available ground squirrel cDNA microarrays to determine what genes are actively being transcribed and/or translated during the various stages of the torpor cycle. 3) Determine the mechanism of ubiquitin-dependent proteolytic regulation during torpor through use of in vitro proteolysis and ubiquitylation assays. 4) Continue participation in the development of undergraduate and graduation curricula a UNLV and encouragement of participation in research by both undergraduate and graduate students. 5) Develop a cable-access television program through collaboration with other UNLV entities that will serve to promote science literacy in elementary school children by introducing them to the native flora and fauna of Southern Nevada.	National Science Foundation	van Breukelen, Frank		439,926	4/30/2013
Clean Energy		UNLV		Long Term Ecological Research (LTER)	During this 6 year grant LTER4 Walker will complete the following: 1. Finish writing all data-based Puerto Rico papers (about 5 remain). 2. Complete edited book linking restoration and succession now begun with Springer. 3. Complete book written with R. del Moral (Cambridge) about how humans interact with disturbance. 4. Edit a book on management/science conflict with Lugo and other co-editors. This might involve a symposium to bring potential chapter authors together. Probably with Springer. 5. Write a book on island biology with Peter Bellingham. 6. Contribute to landslide symposium in China. 7. Participate in annual meetings in Puerto Rico.	University of Puerto Rico	Walker, Lars		55,000	11/30/2012
Clean Energy		UNLV		Collaborative Research: Thermochronology of Dominant Thrust Sheets in the Sevier Fold-Thrust Belt, Utah and Nevada: Determining Fault Timing and Slip Rates	This project will provide extensive thermochronology data sets for parts of the Sevier belt that will be made available in digital format and useful for comparison to other areas. Results of this study will improve understanding of fault slip and thermal histories of fold-thrust belts and relation to hydrocarbon maturation.	National Science Foundation	Wells, Michael		219,562	2/28/2014
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Horsethief Spring Site Characterization	This agreement establishes an archaeological and ethnographic research program for the public lands managed by the Needles Field Office in California. The program will document human occupation in the region.	U.S. Bureau of Land Management	Winslow, Diane		34,000	8/31/2014
Clean Energy		UNLV		Evaluation of Control Technology for Invasive Quagga Mussels	This project will utilize experimental techniques and culturing methodology specific only to quagga mussels and evaluate the effects of control methodologies by: 1. Evaluation of the effects of UV radiation on larval quagga mussels at Lake Mead Nevada. 2. Evaluation of the effects of pulse pressure technology on adult and larval quagga mussels. 3. Develop and recommend other control methodologies as a joint effort between the USGS and the University of Nevada, Las Vegas. 4. Develop graduate student mentoring opportunities focused on control of aquatic invasive species in particular the quagga mussel invasion of the Lower Colorado River.	U.S. Geological Survey	Wong, David		40,012	9/14/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Hot Water Decontamination of Watercrafts	We propose a scientific investigation of pressurized hot water applied to watercraft as a decontamination practice to determine minimal thresholds (temperature and duration) for 100% zebra mussel mortality. We also propose to systematically investigate the efficacy of pressurized water in removing quagga/zebra mussel removal.	U.S. Fish & Wildlife Service	Wong, David		100,378	7/31/2012
Clean Energy		UNLV		Phase 2: Preventing Quagga Mussel Colonization in Lake Mead: Effectiveness of Low Doses of EarthTec in Different Seasons	Our previous study on the lethal effects of EarthTec on quagga mussels demonstrates that EarthTec is an effective agent when used to kill invasive quagga mussel adults, juveniles, and veligers (Watters et al. 2011). Although lower doses (1 ppm) could significantly reduce colonization of quagga mussel veligers, this dose could not completely prevent colonization in December 2010. A separate experiment was conducted in January 2011, and it was found that a dose between 2 and 3 ppm was able to prevent colonization. However, the experiments were conducted in a period when the veligers are most competent in colonization in Lake Mead (Gerstenberger et al 2011). Therefore, 1 to 2 ppm of EarthTec may still be able to prevent colonization in other seasons when veligers are less competent. Since the veliger dynamics in Lake Mead vary by seasons, the proposed study will determine the lowest dose of EarthTec that can result in zero colonization at different seasons. Therefore, the present study can provide a cost-effective (minimum dose of EarthTec to prevent colonization of quagga mussels) and environment-friendly management tool for those agencies that are interested in dealing with invasive quagga mussels by using EarthTec. It will take 18 months to complete the entire project which includes conducting the experiment, data interpretation and analysis, and drafting the report.	Earth Science Laboratories, Inc	Wong, David		70,005	2/28/2013
Clean Energy		UNLV		Preventing Quagga Mussel Colonization in Freshwater Ecosystem: Antifouling Effect of Phenylcapsaicin	By using different concentrations of phenylcapsaicin, this proposed project is to find out: 1) If phenylcapsaicin can result in zero colonization of quagga mussels; 2) The minimum dose of phenylcapsaicin that results in zero colonization of quagga mussels; 3) The effectiveness of phenylcapsaicin at different water depths; 4) The duration of the effectiveness of phenylcapsaicin; 5) The effectiveness comparison between phenylcapsaicin and capsaicin.	aXichem AB	Wong, David		54,175	10/31/2013
Clean Energy		UNLV		Development of Ultrafiltration Membrane-Separation Technology for Energy-Efficient Water Treatment and Desalination Process	This proposal outlines a research plan to develop new polymeric membrane materials that will significantly enhance our understanding of membrane fouling mechanism and advance the development of anti-fouling membranes. The principal investigator proposes a new strategy to synthesize robust polysulfone membrane materials functionalized with various ionic groups and concentrations.	U.S. Department of Energy	Yim, Woosoon		25,000	9/14/2015
Clean Energy		UNLV		Hydrological Database Interface	We intend to construct a MySQL database which stores hydrological and other monitoring data related to WIPP and to build a front-end by which to upload, verify and export the data.	Sandia National Laboratories	Yim, Woosoon		60,912	12/31/2012
Clean Energy		UNLV		Novel Technologies for Best Management of Nonpoint Sources Pollution	The project shall include performance of column and small-scale flow-tank experiments, theoretical investigations of reaction and dynamics of solutes in variable forms and structures of polymeric porous matrices, and integration of experimental and theoretical works through numerical analyses and illustrative pilot-scale simulations, and involve the exchange of scientific personnel, sharing and exchanging of data and scientific information, and scientific research.	Korea Institute of Geoscience and Mineral Resources	Yu, Zhongbo		42,180	6/30/2014
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCOR RII UNLV Task 2	The purpose of Task 2 is to serve in the committee of climate modeling component for managing and overseeing the climate modeling research in the project.	NSF EPSCoR	Yu, Zhongbo		40,593	8/31/2012

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Clean Energy		UNLV	Nevada System of Higher Education	From Macro to Micro/Nano: Career Planning for High School Students Towards a Brighter Future in Biomedical Engineering, Renewable Energy, and Microelectronics	Micro/Nanotechnology which covers a variety of subjects including chemistry, physics, material, engineering and biology has the potential to drastically improve electronics, medicine, energy harvesting/storage and beyond. As faculty working in these fast growing areas, we feel that high school students, especially those from Clark County School District, should be provided an opportunity to learn the basics, academic requirement and job prospect of micro/nano technologies and their applications, at the time when they are considering to go to college. Such knowledge shall help the students make an informed decision to pursue relevant college degrees in engineering or science which lead to rewarding careers that are beneficial to the students individually and to the state of Nevada in its pursuit of diversified economy. To broaden interests of high school students to attend colleges, we propose to develop a community outreach program that involves four major activities (1) training high school science teachers to acquire relevant knowledge; (2) hosting lab tours and workshops at either participating high school campuses or at UNLV main campus; (3) organizing a summer camp for high school students; and (4) creating and regularly updating an interactive website that connects university educators and high school students. Prompt interactions among high school students and the faculty will help attract more students to pursue advanced degrees. Each activity laid out above will be assessed and measured by a professional examiner so that the program can better serve students and the community.	US Department of Education	Zhao, Hui		45,000	9/29/2012
Clean Energy		UNLV		Studies of Streaming Potentials Generated by a Two-Phase Flow with Applications to Detecting Water Encroachment Towards Oil Wells	The central goal of this proposal is to gain fundamental knowledge necessary to design a novel technique which monitors water approaching oil production wells using electrokinetic phenomena through a combined theoretical and experimental approach.	American Chem. Society - Petroleum Research Fund	Zhao, Hui		100,000	8/31/2013
Clean Energy		UNLV		Towards Economically Competitive Nanocrystal-Based Solar Cells Through a Novel Nano Fabrication Technology Using Electric Fields	The central goal of this research is to design novel nanostructured architectures and establish the fundamental principles that will enable novel assembling processes towards massive production of the next-generation low-cost, high efficiency nanocrystal-based solar cells.	U.S. Department of Energy	Zhao, Hui		46,395	6/30/2012
Health and Medical Services		UNLV		Biosurveillance in a Highly Mobile Population	Work activity including status meeting attendance or teleconferencing, research, alternative generation and discussion and both algorithm and data validation will be required in support of all four major tasks.	QinetiQ-FPT	Cochran, Christopher		123,253	5/15/2012
Health and Medical Services		UNLV		AAPHD Project	The purpose of this study is to explore the relationships between exposure to environmental tobacco smoke (ETS) and untreated dental decay and mean Decayed, Missing and Filled Teeth (DMFT) scores in Nevada teens (13-18). Using data from 68,576 participants from year two through nine (7/1/2002-6/30/2010) of the Crackdown on Cancer (CDOC) project, the author will examine whether the exposure to ETS was significantly associated with untreated dental decay and mean DMFT scores, while controlling for caries risk factors such as socioeconomic status (SES), tobacco use (cigarettes, cigars), marijuana use and living in an area with or without fluoride. According to Dittmyer et, al., SES, tobacco/marijuana use and community water fluoridation are factors identified as significant modulators of dental caries. The author and a Research Assistant will then conduct a community pilot project to further determine if the frequency/duration/amount of exposure to smoked tobacco products (cigarettes, cigars) had any relationship with the prevalence (untreated decay) and severity (DMFT scores) of dental decay. Results of this study will guide the development of an oral health education program that addresses the association of ETS exposure among adolescents with oral health risk. The project will also provide evidence to support the necessary tobacco-related policy changes that are required to improve the oral health of children.	American Association of Public Health Dentistry	Demopoulos, Christina		5,000	5/30/2013
Health and Medical Services		UNLV		NSF-RCN: X-Ray Motion Analysis Research Coordination Network	We propose to create a network of researchers applying x-ray motion analysis (XMA) in the field of comparative vertebrate musculoskeletal biomechanics.	Brown University	Lee, David		25,101	2/28/2013
Health and Medical Services		UNLV		Transcription-Associated Mutagenesis in Bacillus Subtilis Cells in Conditions of Stress RAHSS Supplement	The main goal of this project is to elucidate molecular mechanisms that generate genetic diversity in cells experiencing stress or non-replicating conditions. The specific objective of this project is to determine how the process of transcription mediates the formation of mutations in stressed cells.	National Science Foundation	Robledo, Eduardo		6,500	2/28/2013
Health and Medical Services		UNLV		Transcription-Associated Mutagenesis in Bacillus Subtilis Cells in Conditions of Stress REU	This supplement will provide an eight-week research experience in the field of bacterial and molecular genetics to two UNLV undergraduate students. The educational objective of this supplement is to further the research experience for two undergraduate students in Dr. Robledo's laboratory. The experimental objectives for the participating students are to examine a) the accumulation of mutations in essential genes and b) how the formation of transcription-induced secondary DNA structures influences accumulation of mutations in cells in conditions of nutritional stress.	National Science Foundation	Robledo, Eduardo		29,150	2/28/2013
Health and Medical Services		UNLV		Transcription-Associated Mutagenesis in Bacillus Subtilis Cells in Conditions of Stress	To test the transcription-associated mutagenesis concept, we will pursue two major experimental objectives. 1) We will determine whether decreases in the level of transcription correlate with decreases in the accumulation of mutations in a gene under selection. 2) We will investigate the role of the formation of transcription-induced DNA secondary structures in the accumulation of mutations in stationary phase.	National Science Foundation	Robledo, Eduardo		375,000	2/28/2013
Health and Medical Services		UNLV		USPFO for Nevada	The contractor shall provide customized comprehensive dental readiness services to include: annual dental examinations, clinically indicated radiologic studies (to include panorex), oral health education and Class 3 dental treatment for alerted Soldiers (as identified by the state/territory).	Nevada Army National Guard	Thiriot, Rick		0	7/31/2013
Health and Medical Services		UNLV		How Did TANF Respond to Great Recession?	1)Examination of changes in the TANF caseload during and before the recession for every state and comparison with receipt of unemployment compensation and the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp program); 2)Determination of whether TANF's responsiveness to the 2001 and 2007 recessions differed from the responsiveness of Aid to Families with Dependent Children (AFDC, TANF's predecessor program), to previous recessions. 3) An examination of selected aspects of state TANF programs to understand why TANF rolls did not increase.	The Brookings Institution	Albert, Vicky		11,000	7/27/2012

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Health and Medical Services		UNLV		Regional Shipping Point for the National Center for Biomedical Research and Training (NCBRT)	1. Provide adequate secure and climate controlled space/facility infrastructure to store up to three months of course materials, associated course equipment to include 70 simulation weapons(pistols/rifles), simulation ammunition, shipping containers, ship and receive these items to and from course locations, and clean and maintain course equipment and simulation weapons. 2. Provide adequate secure and climate controlled space/facility infrastructure to accommodate a single office space to include telephone service (one telephone and one fax) and internet service for use by staff when onsite at location. 3. Provide labor services necessary to pack and ship course materials and equipment for up to 10 course locations, based on course delivery schedule to be provided by NCBRT; and to receive, unpack, inventory and re-pack received items at the conclusion of each course delivery. Documentation of all shipments will be noted utilizing the provided electronic tracking forms. Copies of post course inventories shall be forwarded to the NCBRT Material Manager via email or other mutually agreed-upon method. 4. Provide labor to clean and maintain simulation weapons and course equipment upon receipt of these items from course site. This will include also the proper documentation of such utilizing the provided electronic tracking forms. 5. Provide adequate safe guard of simulation weapons ammunition, course equipment, course materials, shipping containers and office furniture and equipment while in the possession of UNLV and annually submit an inventory listing of all NCBRT property in custody of UNLV to NCBRT. 6. Return the items in like condition as received from NCBRT (at NCBRT's expense), normal wear and tear expected, and free from contamination, on or before the expiration date, unless the agreement period is formally extended or terminated before the end date. 7. Reimburse NCBRT at the current price of replacement or repair, in case of loss or damage of the property in UNLV's possession during the agreement period. 8. Permit inspection of the property listed in this agreement after proper notification.	Louisiana State University	Bryant, Ross		16,720	9/30/2012
Health and Medical Services		UNLV		Nellis Dunes Recreational Area Dust Exposure and Human Risk Assessment	This study will address the following questions in the context of being exposed to dust at NDRA (Nellis Dunes Recreational Area): 1) What is the risk to the public when performing recreational activities at Nellis Dunes? 2) What is the risk to federal employees, or people performing other non-recreational activities at Nellis Dunes? The proposed project is a scientific study to determine the potential human health risks from dust emission exposure for the 300,000+ annual visitors who recreate at the NDRA, including non-recreating visitors and federal personnel.	U.S. Bureau of Land Management	Buck, Brenda	University of Utah	1,206,361	3/20/2014
Health and Medical Services		UNLV		Communities Putting Prevention to Work (CPPW)	Assist the Southern Nevada Health District (SNHD) Office of Chronic Disease Prevention and Health Promotion (OCDPHP) Chronic Disease Prevention Program with planning, implementation and evaluation of grant objectives related to the Communities Putting Prevention to Work (CPPW) Obesity Grant.	Southern Nevada Health District - FPT	Bungum, Tim		18,678	5/31/2012
Health and Medical Services		UNLV		In-Situ Synchrotron X-Ray Diffraction Study of Quartz Deformation - ARRA	The primary goal of the proposed research is to explore the role of intergranular interactions in a deforming polycrystal using a combination of high pressure in-situ synchrotron x-ray diffraction experiments, elastic plastic self consistent modeling studies and detailed microstructural analysis of the experimental samples.	National Science Foundation	Burnley, Pamela		305,314	8/31/2013
Health and Medical Services		UNLV		Clark County: Sample Analysis	Establish a new BioWatch Laboratory to serve the jurisdiction of Las Vegas.	Clark County Dept of Air Quality and Environmental Mgmt	Buttner, Mark		392,404	6/30/2012
Health and Medical Services		UNLV		Clark County: Sample Analysis	Establish a new BioWatch Laboratory to serve the jurisdiction of Las Vegas.	Clark County Dept of Air Quality and Environmental Mgmt	Buttner, Mark		796,339	6/30/2012
Health and Medical Services		UNLV		The Work Life of Nurse Faculty	The purpose of this study is to examine factors associated with the work life of nurse faculty in the United States and how those factors may affect their intent to become, stay, or consider leaving the faculty role. The aims of this study are to discover the factors that influence nurses to become nursing faculty and what the faculty's reasons are for staying in nursing education. Identifying this information will assist nursing education leaders to develop improved strategies for the recruitment, retention, and improved work life environments for faculty.	American Nurses Foundation	Candela, Lori		3,095	8/31/2012
Health and Medical Services		UNLV		California-Nevada Public Health Training Center (CA-NV PHTC)	The PI from UNLV will serve as the lead contact at this academic partner, and assume overall responsibility for project communications, reports, and resource management. She will coordinate partnership meetings and direct development and implementation of training materials, training venues, and training resources.	San Diego State University Research Foundation	Chino, Michelle		111,838	8/31/2012
Health and Medical Services		UNLV		Ventanilla De Salud	The Consulate General of Mexico in Las Vegas, Nevada, services an average of 100 Mexican nationals per day, and desires to partner with UNLV, through the CHDR to: (1) Provide quality bilingual, bicultural healthcare education, advocacy and referrals to Mexican nationals and their families at the Consulate. (2) Disseminate health information through one-on-one educational interventions as well as group presentations at the Consulate. (3) Assist in the enrollment of Latinos of Mexican origin in health insurance programs. (4) Provide necessary guidance to enable Latino families of Mexican origin to find quality primary care/services. (5) Conduct a needs assessment survey at the Consulate to provide a base for the program's structure and evaluation. (6) Seek sustainability and continued funding for the "Ventanilla de Salud Program".	Consulate General of Mexico in Las Vegas, Nevada	Chino, Michelle		15,000	12/19/2012
Health and Medical Services		UNLV	University of Nevada, Reno	INBRE - CHD Knowledge and Risk Factors Among Filipino-Americans	CHD is the leading cause of death of Filipino-Americans (FAs) in the United States. FAs are the second largest Asian subgroup in the US and the second largest immigrant population in the US following Mexican-Americans. Despite this, little information is known about the CHD knowledge and the CHD risk factors of FAs. The aims of this proposed research are to; a)examine the baseline CHD knowledge of FAs and b) examine the CHD risk factors prevalent among FAs.	National Institutes of Health	Dalusing-Angosta, Alona		86,123	5/31/2012
Health and Medical Services		UNLV	NV System of Higher Education	Blood Flow Measurement Telemetry System	Biotelemetry of physiological events will be critical in the development of life systems in space. A major issue facing telemetry (the wireless transmission of data) is a lack of blood flow sensors. Current technologies require too much power. We will use passive infrared sensors (PIRS) to create a blood flow sensor that requires no external power.	NV System of Higher Education	Das, Biswajit		1,000	9/30/2012
Health and Medical Services		UNLV		UNLV School of Dental Medicine and Future Smiles/Clark County Dental Initiative	The UNLV School of Dental Medicine (SDM) assumed the role of fiscal agent for Seal Nevada South (SNS) as of July 1, 2011. SNS will expand the program into 6 CCSD elementary schools in the next 12 months in addition to having 2nd year dental hygiene students and 3rd/4th year dental students providing the preventive services with the supervision of SDM Faculty. SDM has a pending agreement with the CCSD to offer dental treatment in elementary schools with pediatric dental residents and predoctoral dental students. If this agreement is approved, SNS will work closely with the restorative program to provide the preventive services to additional schools. With the current state of the economy, it is extremely difficult to access dental services. By having a restorative program with the same administration as SNS, it will allow for a smooth transition for the SNS children to receive necessary follow-up dental care. SNS preventative care will be delivered using mobile/portable dental equipment in school-based and community-based settings.	Oral Health America	Demopoulos, Christina	Future Smiles	20,000	6/30/2012
Health and Medical Services		UNLV		UNLV School of Dental Medicine and Southern Nevada Dental Society Give Kids a Smile	The major goals in providing continuity of care for the children in the Give Kids a Smile (GKAS) program include: 1)Provide the remaining restorative care that was not completed at GKAS program, at no charge to the parent/guardian (SDM/SNDS); approximately 35% of GKAS participants 2)Schedule children who were not able to be seen in the GKAS program due to behavioral management issues with the pediatric residents in the SDM pediatric clinic (SDM). 3)Connect children who participated in the GKAS program with dental home at the SDM for continuity of care and routine preventive visits to ensure good oral hygiene and dietary habits (SDM). 4)Assist the families in receiving the dental care needed for their children (SNDS).	American Dental Association Foundation	Demopoulos, Christina	Southern Nevada Dental Society	6,251	7/29/2012

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Health and Medical Services		UNLV		Establishing Safety, Permanency, and Well-Being for Children Residing in Relative Care: A Data Diffusion Plan	The goal of the proposed project is to strengthen social workers' abilities to translate evidence-supported data pertaining to relative caregiving into useful information, practice, and policies	The Lois and Samuel Silberman Fund	Denby-Brinson, Ramona		40,000	9/30/2013
Health and Medical Services		UNLV		Improving Service Delivery to Youth in the Child Welfare System	The sub-award to UNLV involves two main activities: (1) evaluation services and (2) research services. Category #1 Evaluation Services: A longitudinal project implementation evaluation beginning at Year-One will occur consisting of the following components: 1. Process Evaluation 2. Needs Assessment 3. Cost Analysis; and 4. Fidelity Assessment. Also, a longitudinal satisfaction evaluation will occur. Category #2 - Research Services A longitudinal outcome evaluation (comprising baseline, 6 month and 12 month follow up) will be done in the form of an experimental research study consisting of the following components: 1. 200 pre- and adolescent foster youth in an experimental research group condition; and 2. 200 pre- and adolescent foster youth in a control research group condition.	Clark County Department of Family Services	Denby-Brinson, Ramona		63,413	6/30/2016
Health and Medical Services	Additional Promising Possibilities	UNLV		Traditional Foods/CDC-IPA	Under the supervision of the Deputy/Field Director, Native Diabetes Wellness Program, PEB, DDT, CDC in Albuquerque, NM, Dr. Dodge-Francis shall accomplish the following: 1) provide technical assistance to 17 CDC traditional foods grantees on evaluation design for process and outcome measures; 2) oversee and have lead responsibility for gathering and presenting data from grantee presentations and written reports; 3) assist in creation and interpretation of shared data elements from the survey monkey system developed by NDWP; 4) attend two grantee meetings each year; 5) attend the DOT Diabetes conference at least twice during the traditional foods grantee period; and 6) provide ideas/storylines/review/read/comment on Eagle Books for youth as they are developed by CDC NDWP.	Centers for Disease Control	Dodge-Francis, Carolee		58,454	1/2/2013
Health and Medical Services		UNLV		An Outcome Study Involving Drug Abusing Mothers in Child Protective Services	The specific aims of this Stage IA/IB study are to: (1) develop the first family-based behavioral therapy treatment manual to explicitly address drug abuse within the context of child neglect, (2) develop accompanying protocol adherence measures, including video scenarios depicting effective implementation of the developed treatment procedures, (3) train program staff to effectively use the developed interventions, (4) examine the reliability, feasibility and clinical utility of the developed manual, as well as the developed method of protocol adherence in clinical case trials involving drug abusing mothers who have evidence child neglect, (5) conduct a controlled comparison of the developed behavior therapy and treatment as usual (TAU) Family Services (random assignment of participants to experimental conditions), (6) utilize structured clinical methods to assess severity of child neglect, (7) maintain standardization and uniformity of treatments by incorporating treatment manuals, therapist protocol checklists, structured supervision of therapists, assessment of treatment protocol adherence via objective review by independent raters, standardized program introduction during all initial treatment sessions, and equal duration of treatments, (8) utilize objective assessment methods for both child maltreatment (e.g., safety assessment tours of participant homes), and presences of drug use (e.g., urine drug assay tests), as well as standardized measures in the assessment of illicit drug use (frequency, child maltreatment, parenting behavior, conduct, and family functioning), (9) examine the initial efficacy of the developed behavioral therapy, as compared with TAU (pre/post assessment), as well as assess durability of study findings (pre/FU assessment).	National Institutes of Health	Donohue, Bradley		1,333,102	6/30/2012
Health and Medical Services		UNLV		Testing Therapist Training Interventions to Implement an EBT for Adolescents	Writing results for the following research: Aim 1: Evaluate the relative effectiveness of three training interventions with increasing intensity. Aim 2: Examine the relative capacity of the two more intensive training interventions. Aim 3: Evaluate moderators of gains in therapist knowledge and implementation of CM throughout the study period.	Medical University of South Carolina	Donohue, Bradley		18,547	6/30/2012
Health and Medical Services		UNLV		The Development of a Higher Order Thinking Rubric	Using a non-experimental research design, the aim of this study is to determine the psychometric properties of the Higher Order Thinking Rubric, an instrument created to assess the cognitive developmental stage of higher order thinking during high-fidelity simulation (HFS).	Sigma Theta Tau International Honor Society of Nursing	Doolen, Jessica		4,965	10/31/2012
Health and Medical Services		UNLV	University of Nevada, Reno	Geriatric Education Centers	Become a consortium member of the Nevada Geriatric Education Center (NGEC) for the project timeframe of July 1, 2010 through June 30, 2015. During this period UNLV will provide services and conduct activities as outlined in the Geriatric Education Center Award Program application submitted by UNR.	Health Resources & Services Admin.	Dounis, Georgia		77,000	6/30/2012
Health and Medical Services		UNLV	University of Nevada, Reno	Geriatric Training for Physicians, Dentists and Behavioral and Mental Health Professionals	UNLV will provide services and conduct activities outlined in the Geriatric Training and Physicians, Dentists and Behavioral and Mental Health Professionals Grant Program.	Health Resources & Services Admin.	Dounis, Georgia		169,340	6/30/2012
Health and Medical Services		UNLV	Nevada System of Higher Education	Cell Cycle-Dependent Radiation Biomarkers Expressed During Manned Space Flight	This proposal aims to test the hypothesis that a unique subset of the molecular secondary effects of radiation exposure can be attributed to DNA damage during replication. Using microarray technology, it is feasible to simultaneously analyze mRNA expression for all of the approximately 25,000 genes that comprise the human genome. This approach has been used to investigate the overall effects of radiation on cultured cells. This proposal describes a strategy to differentiate primary radiation effects from those secondary effects that are related to DNA damage during replication. The latter defines the subset of radiation exposure biomarkers that are cell cycle-dependent. The eventual goal for this project will be to investigate radiation biomarkers that are produced by exposure to the types of radiation found in space.	NASA EPSCoR	Gary, Ronald		26,194	3/30/2013
Health and Medical Services		UNLV	University of Nevada, Reno	INBRE Year 7 - UNLV Genomics Core	The UNLV Genomics Core provides research services including microarray, quantitative real-time PCR, gel and blot imaging (via storage phosphor, fluorescence scanning, and chemiluminescence detection), protein electrophoresis (one- and two-dimensional), and flow cytometry. INBRE grant funding supports the costs for personnel who maintain and operate equipment and also for instrumentation service contracts.	National Institutes of Health	Gary, Ronald		191,868	5/31/2012
Health and Medical Services		UNLV		Early Intervention Endorsement Cohort	An instructor will be provided to facilitate an early intervention cohort for completion of the courses noted below which will be taught on weekends in four (4) modules. These courses will support early intervention staff in southern Nevada in meeting their endorsement criteria within the required timeline. Due to budget cuts UNLV does not have faculty capacity to support this effort without funds to support temporary faculty.	Nevada Department of Health and Human Services - FPT	Gelfer, Jeffrey		19,734	6/30/2013
Health and Medical Services		UNLV		Nevada Healthy Homes Partnership	Conduct the Nevada Healthy Homes and Lead Prevention Poisoning Prevention Initiative. The Nevada Healthy Homes and Lead Poisoning Initiative will develop a strategic plan for a statewide initiative focusing on two broad needs. First, is the need to address exterior/interior housing hazards that put resident populations in metropolitan Clark County at risk of multiple housing-related health problems, including asthma, unintentional injuries, and childhood lead poisoning. A second focus of planning will be directed towards developing the capacity to address housing-related health hazards in the remaining two metropolitan counties in Nevada, Washoe County and Carson City. DEOH, along with existing and new partners, will provide outreach and training program specifically focused on equipping northern Nevada communities with the capacity-building knowledge and skills needed to reduce or eliminate housing-related health hazards and to promote housing that is healthy, safe, affordable and accessible.	Centers for Disease Control	Gerstenberger, Shawn	State of Nevada Health Division Southern Nevada Health District	591,697	8/31/2012
Health and Medical Services		UNLV		Potential Impacts of Invasive Quagga Mussels on Diet and Feeding Habits of Young of the Year (YOY) Striped Bass in Lake Mohave	UNLV will provide assistance with experimental design, sample collection and analysis, data interpretation and statistical analysis, and report to Nevada Department of Wildlife (NDOW) on potential impacts of invasive quagga mussels on diet and feeding habits of YOY striped bass in Lake Mohave.	Nevada Department of Wildlife	Gerstenberger, Shawn		40,000	6/30/2013

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Health and Medical Services		UNLV		Steroid Hormone Signaling in Genetically Obese Drosophila	We propose to use the power of the Drosophila genetics to investigate the role of steroid signaling in obesity and identify the genes and allele combinations responsible for the increased obese phenotype. Because the fly system has been instrumental in identifying conserved signaling pathways responsible for many human disease pathologies, we expect that information learned will have direct applications to human health.	National Institutes of Health	Gibbs, Allen		285,893	4/30/2015
Health and Medical Services		UNLV		Reliability and Validity of the HPI Caliper and Body Composition Formula	This study will evaluate the reliability and validity of the HPI caliper and Body Composition formula.	Health Profile Institute, Inc	Golding, Lawrence		25,000	6/30/2012
Health and Medical Services		UNLV		Hospital Cost Review Project - FPT	1.The parties agree that the services or activities to be performed or contracted by the Center as follows: a. To collect and analyze patient discharge data currently known as Universal Billing (UB) Forms from hospitals pursuant to NRS 449.485. b. To collect quarterly report utilization and financial data from hospitals pursuant to NRS 439B.440. These reports are known as the Nevada Hospital Quarterly Reports (NHQRs). c. To collect quarterly utilization data from hospice facilities, long-term care facilities including skilled nursing facilities and facilities for the mentally retarded, ambulatory surgical centers (AMBSURG), medical resonance imaging (MRI) facilities and computer tomography scanner (CT) facilities. 2. to provide reports to the DHCFF as delineated in the deliverables section. The Center is designated as a public health entity with regard to the procession of this information for the purposes of the Health Information Portability and Accountability Act (HIPAA). 3. The Center may perform specific tasks and provide reports and data as requested by outside entities. The Center will bill for the outside entities directly for any such tasks and reports. 4. The Center will maintain and safeguard all information received, developed, reported, or distributed under this Contract in compliance with state and federal laws. 5. The Center will be compensated for its services as delineated. Deliverables will be submitted by electronic means unless otherwise stated in Contract or otherwise agreed to by both parties. The DHCFF will have twenty (20) days from receipt to accept or reject any deliverable.	Nevada Department of Health and Human Services - FPT	Greenway, Joseph		159,016	6/30/2013
Health and Medical Services		UNLV		Hospital Cost Review Project - State	1.The parties agree that the services or activities to be performed or contracted by the Center as follows: a. To collect and analyze patient discharge data currently known as Universal Billing (UB) Forms from hospitals pursuant to NRS 449.485. b. To collect quarterly report utilization and financial data from hospitals pursuant to NRS 439B.440. These reports are known as the Nevada Hospital Quarterly Reports (NHQRs). c. To collect quarterly utilization data from hospice facilities, long-term care facilities including skilled nursing facilities and facilities for the mentally retarded, ambulatory surgical centers (AMBSURG), medical resonance imaging (MRI) facilities and computer tomography scanner (CT) facilities. 2. to provide reports to the DHCFF as delineated in the deliverables section. The Center is designated as a public health entity with regard to the procession of this information for the purposes of the Health Information Portability and Accountability Act (HIPAA). 3. The Center may perform specific tasks and provide reports and data as requested by outside entities. The Center will bill for the outside entities directly for any such tasks and reports. 4. The Center will maintain and safeguard all information received, developed, reported, or distributed under this Contract in compliance with state and federal laws. 5. The Center will be compensated for its services as delineated. Deliverables will be submitted by electronic means unless otherwise stated in Contract or otherwise agreed to by both parties. The DHCFF will have twenty (20) days from receipt to accept or reject any deliverable.	Nevada Department of Health and Human Services	Greenway, Joseph		710,984	6/30/2013
Health and Medical Services		UNLV		Hospital Cost Review Project-Attachment B	1.The parties agree that the services or activities to be performed or contracted by the Center as follows: a. To collect and analyze patient discharge data currently known as Universal Billing (UB) Forms from hospitals pursuant to NRS 449.485. b. To collect quarterly report utilization and financial data from hospitals pursuant to NRS 439B.440. These reports are known as the Nevada Hospital Quarterly Reports (NHQRs). c. To collect quarterly utilization data from hospice facilities, long-term care facilities including skilled nursing facilities and facilities for the mentally retarded, ambulatory surgical centers (AMBSURG), medical resonance imaging (MRI) facilities and computer tomography scanner (CT) facilities. 2. to provide reports to the DHCFF as delineated in the deliverables section. The Center is designated as a public health entity with regard to the procession of this information for the purposes of the Health Information Portability and Accountability Act (HIPAA). 3. The Center may perform specific tasks and provide reports and data as requested by outside entities. The Center will bill for the outside entities directly for any such tasks and reports. 4. The Center will maintain and safeguard all information received, developed, reported, or distributed under this Contract in compliance with state and federal laws. 5. The Center will be compensated for its services as delineated. Deliverables will be submitted by electronic means unless otherwise stated in Contract or otherwise agreed to by both parties. The DHCFF will have twenty (20) days from receipt to accept or reject any deliverable.	Nevada Department of Health and Human Services	Greenway, Joseph		410,000	6/30/2013
Health and Medical Services		UNLV		Advisor to the State of Nevada, FY 2012	Make available the Dean of the School of Community Health Sciences, Dr. Mary Guinan, to act as a consulting Physician to the State of Nevada Health Division, through its Bureau of Health Care Quality and Compliance, with regard to infectious disease issues within the State of Nevada.	Nevada Department of Health and Human Services Health Div	Guinan, Mary		145,699	6/30/2012
Health and Medical Services		UNLV		Developmental Origins of Domain-Specificity in Auditory Cognition	The proposed experiments aim to 1)determine the extent to which adult listeners apply music-and speech-specific biases when confronted with unfamiliar auditory structures and 2)determine whether these biases change or remain stable from infancy to adulthood.	National Science Foundation	Hannon, Erin		229,976	4/30/2014
Health and Medical Services		UNLV		Large Amplitude Training for Children with Cerebral Palsy: A Planning and Feasibility Study	The long-term goal of the research team is to refine the LSVT BIG movement intervention for children with Cerebral Palsy (CP) in order to conduct a large-scale clinical trial to address this intervention's effectiveness, clinical pragmatism and dose response relationships. To achieve this goal, multiple steps must be completed first to achieve the long-term goal of the proposed feasibility and planning grant. Therefore, the requested AACPD funds will be used to support the investigative team to achieve the following four aims: 1) Identify potential collaborators needed for a large-scale study of LSVT BIG, including statisticians and other key collaborator/consultants. 2) Plan successful recruitment strategies at multiple sites. 3) Prepare to pilot-test a day camp session in which children in a similarly aged group would receive an adapted LSVT BIG therapy 4x/week x 1 week to test feasibility and effects on gait and functional mobility. 4) Identify an appropriate external funding source to which a proposal for a larger scale, clinical trial of this intervention, including examination of dose response relationships, would be prepared.	American Academy for Cerebral Palsy and Development Med	Hickman, Robbin		25,000	12/31/2013
Health and Medical Services		UNLV		Project Connect: Connecting Districts with Highly Qualified Teachers in Low-incidence Disabilities	The primary purpose of the proposed four (4) year project, Project Connect, is to prepare 60 highly qualified special education teachers in the area of low-incidence disabilities.	U.S. Department of Education	Higgins, Kyle		796,960	7/31/2013
Health and Medical Services		UNLV		Regulation of Platelet-Activating Factor Acetylhydrolase During Inflammation	The goal of the proposed research is to investigate the dynamic interaction of inflammatory mediators and plasma platelet-activating factor acetylhydrolase expression and activity. The objective of the current research is to investigate the cellular and molecular mechanisms involved in the expression and regulation of PAF acetylhydrolase in response to inflammatory mediators in human monocyte/macrophages to gain new knowledge of the regulation of this enzyme in response to the periodontal pathogen <i>P. gingivalis</i> .	National Institutes of Health	Howard, Katherine		360,000	6/30/2014
Health and Medical Services		UNLV		Dental Faculty Loan Repayment Program (DFLRP)	The purpose of the Dental Faculty Loan Repayment Program (DFLRP) established at the University of Nevada, Las Vegas, School of Dental Medicine (UNLV SDM) is to aid in the recruitment and retention of full-time dental faculty.	Health Resources & Services Admin.	Hughes, Cody		402,412	6/30/2013

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Health and Medical Services		UNLV	University of Nevada, Reno	INBRE: Inhibitory Signaling in Animal Model of Schizophrenia	The funds being allocated for the 2011-2012 INBRE award will be utilized to complete a number of cellular and molecular biology assays on tissue that we collected during the previous INBRE award cycle. In our investigations we have completed a number of behavioral studies characterizing a novel model of schizophrenia (INBRE award 2010-2011). We have also completed a portion of the cellular and molecular characterization of changes in discrete brain regions in the model system as they relate to data on schizophrenia populations. The work that is planned for the 2011-2012 award will be to complete these experiments as well as to expand on the targets being investigated. Our initial data suggest that our novel model satisfies many of the criteria for a model of schizophrenia, however the mechanisms responsible as well as potential therapeutic targets require additional examination of specific cellular and network function. The 2011-2012 INBRE award will support a portion of these experiments. Specifically, we are currently examining if changes in inhibitory transmitters and receptors may be responsible for the deficits observed in our model as well as potentially in human schizophrenia populations.	National Institutes of Health	Kinney, Jefferson		28,800	5/31/2012
Health and Medical Services		UNLV	University of Nevada, Reno	Kleiger INBRE	The goal of my research is to understand the Ubiquitin Proteasome System (UPS) in eukaryotes and specifically to uncover structure-function relationships for ubiquitin ligase enzymes. We will employ biochemical and biophysical techniques designed to elucidate the mechanism of action of these enzymes. My lab will also study the UPS in vivo using cell-based assays to characterize the phenotypes of cells carrying mutant alleles of these enzymes.	National Institutes of Health	Kleiger, Gary		178,420	5/31/2012
Health and Medical Services		UNLV		Evaluating the Enhanced Services of the Clark County Adult Drug Court	The primary purpose of this project is to determine if the expansion of residential treatment services for ADC participants is increasing the number of successful program participants and, subsequently, reducing recidivism.	Clark County Adult Drug Court	Koetzle, Deborah		90,000	9/30/2012
Health and Medical Services		UNLV		Evaluation of the NDCO Reentry Program - Second Chance Act Adult Offender Reentry Demonstration Project	The Nevada Department of Corrections received Second Chance funding from the Bureau of Justice Assistance to provide reentry services to individuals reentering the community. The program is intended to help formally incarcerated persons successfully transition back into the community by providing a number of services including assessment, case management, and treatment services. As part of the award, the NDOC is required to have an evaluation of the services. The research questions to be addressed include: 1. What are the characteristics of participants targeted by the Second Chance program? 2. What services are provided to program participants? 3. What is the successful completion rate? What are the characteristics of those who successfully complete the programs? 4. What is the recidivism rate of program participants? What factors predict recidivism? Data collection will be restricted to existing data. The Department of Corrections records data related to participant characteristics, process measures and outcome measures. These data will be provided to UNLV research staff in an electronic form and uploaded into a SPSS database. any data not available in electronic form will be collected by DOC staff and entered into a SPSS database by UNLV research staff. Recidivism checks will be run by NDOC. UNLV research staff will review all records and code the recidivism data. These data will be entered into a SPSS database and merged with the original database. Data analysis will include basic descriptives, bivariate analyses and multivariate techniques such as logistic regression. These techniques will allow for the identification of correlates related to both program completion and recidivism. SPSS will be used to conduct all analyses.	Nevada Department of Corrections-FPT	Koetzle, Deborah		16,610	9/30/2012
Health and Medical Services		UNLV		Translation of Evidence-Based PE in Elementary Schools	The specific aims of this project are to: 1. Identify strategic translation and dissemination tactics that target principals, PE teachers, district superintendents/district PE coordinators, school board members, and members of PTA. 2. Refine our existing brochure and develop new written and video (DVD and digital format) translation and dissemination materials. 3. Conduct translation and dissemination using the strategies and products developed in Aims 1 and 2.	Robert Wood Johnson Foundation	Lounsbey, Monica		19,600	7/31/2012
Health and Medical Services		UNLV		Community Health Clinical Teaching: A Virtual Poverty Simulation in Second Life	The purpose of this study is to develop a poverty simulation for community health (CH) nursing students through the online virtual world of Second Life and to evaluate the pedagogical effectiveness of this active learning virtual experience.	National League for Nursing	Menzel, Nancy		12,040	9/30/2012
Health and Medical Services		UNLV		Southern Nevada Health District Accreditation Proposal	Dr. Nancy Menzel will be the MAPP consultant through a subaward to the University of Nevada, Las Vegas (UNLV) where she is an associate professor. She is also uniquely positioned to assist in the accreditation as a current member of the SNHD BOH. She has already started the MAPP process with the District and has completed the Vision phase and the Community Themes and Strengths Assessment. During the funding period, Dr. Menzel will work with the SNHD and local organizations and community members to complete the Local Public Health System Assessment and Forces of Change Assessment, and will work with the OOE to complete the Community Health Status Assessment. Using the assessment information, she will draft a Community Health Assessment document. She will also create a strategic plan for completing Phases 4-6 of the MAPP process which will lead to a completed Community Health Improvement Plan.	Southern Nevada Health District - FPT	Menzel, Nancy		14,000	5/31/2012
Health and Medical Services		UNLV		Behavioral Risk Factor Surveillance System	The Cannon Survey Center (CSC) is fully equipped with the necessary resources and staff for collecting data for the Nevada statewide Behavioral Risk Factor Surveillance System. This will consist of collecting a minimum of 4,000 surveys between February 1, 2011 and February 28, 2012, with 1/12 of the surveys collected during each calendar month. Adhering to the methodology and procedures set forth in the BRFSS User's Guide, the CSC will conduct 334 surveys of randomly selected Nevada adults (age 18 or older) using the questionnaire provided by the NSHD.	Nevada Department of Health and Human Services - FPT	Moonie, Sheniz		316,950	2/28/2013
Health and Medical Services		UNLV		Nevada Immigrant Resource Project	The Nevada Immigrant Resource Project (NIRP) will serve as a center for immigration-related information and legal education. NIRP will engage in community outreach and education to improve immigrant access to justice and justice system. The Project will collaborate with community partners to improve service to immigrant communities, provide training and consultations to community partners, conduct outreach to immigrant communities, and provide direct legal representation to immigrant victims of crime. In conjunction with its outreach and training efforts, NIRP will develop materials and training modules for use in its own efforts at outreach and training, and serve as a reference and guidance to law enforcement agencies, government service providers, and other non-governmental organizations who work with immigrant communities.	Bureau of Justice Assistance	Morrison, Angela		350,000	7/31/2012
Health and Medical Services		UNLV		Environmental Determinants of SLE Among African Americans in Coastal SC and GA	Dr. Peden-Adams is an expert in the field of toxicology. She will oversee the analysis of the PBDEs and PFAAs, provide her expertise in the interpretation of results and assist with dissemination of study results.	Medical University of South Carolina	Peden-Adams, Margie		31,856	6/30/2012
Health and Medical Services		UNLV		Nellis Dunes Recreational Area Dust Exposure and Human Risk Assessment	This study will address the following questions in the context of being exposed to dust at NDRA (Nellis Dunes Recreational Area): 1) What is the risk to the public when performing recreational activities at Nellis Dunes? 2) What is the risk to federal employees, or people performing other non-recreational activities at Nellis Dunes? The proposed project is a scientific study to determine the potential human health risks from dust emission exposure for the 300,000+ annual visitors who recreate at the NDRA, including non-recreating visitors and federal personnel.	U.S. Bureau of Land Management	Peden-Adams, Margie	East Carolina University	1,294,234	3/20/2014
Health and Medical Services		UNLV		Child Death Data Management for Clark County	The Nevada Institute for Children's Research and Policy will provide for data management for the Clark County CDRT, including compile raw data; complete the national data tool; enter data into the online national database; and assist in compilation and completion of the MDT Quarterly Summary Report and Recommendation sheet.	Nevada Division of Child and Family Services	Phebus, Tara		35,986	6/30/2013

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Health and Medical Services		UNLV		Clark County Death Review Team Data Management and Report	It is the intent of the Nevada Institute for Children's Research and Policy (NICRP) to provide support to the Clark County Child Death Review Team (CDRT) as it conducts its mission to prevent the deaths of Clark County's children through a thorough multi-disciplinary team review. NICRP currently has a contract with the State Of Nevada to provide the basic data collection and entry which is required for state data reporting. This contract is intended to provide continued additional support, as recommended by the Clark County Office of Organization Effectiveness, in the form of statistical analysis of child deaths in Clark County. A crucial component of the review process is data collection and reporting. Without quality data, it is difficult to identify patterns in child fatalities which could lead to prevention initiatives. Collecting data will help the team to see the bigger picture surrounding child fatalities in Clark County and assist in developing data-driven, community-based prevention initiatives. Reporting data is more than just writing a report. It involves the input from team members in identifying kinds of cases to focus on and asking questions of the data collected, and providing feedback on the draft report. Developing a County report using the team's collective information and knowledge will ensure a product that the County can be proud of.	Clark County Dept of Family Services	Phebus, Tara		24,715	6/30/2012
Health and Medical Services		UNLV		Coordination for Domestic Violence Fatality Review Teams in Nevada	(1) Establishment of a Domestic Violence Fatality Review Team (DVFRT) in Clark County, NV. (2) Coordination of the creation of standard protocols for teams and reviews in Nevada. (3) Creation of a standard data collection tool for Domestic Violence Fatality Review to be used in Nevada. (4) Facilitation of the state DV review team meetings.	Nevada Attorney General	Phebus, Tara		12,000	6/30/2012
Health and Medical Services		UNLV		Early Childhood Data Warehouse Project	Funding is provided for the development and maintenance of a State of Nevada early childhood database. The Nevada Institute for Children's Research and Policy (NICRP) will serve as administrator and will collaborate with the National Supercomputing Center for Energy and Environment (NSCEE) in database administration and maintenance. The database will feature a library of early childhood data in Nevada to provide resources for grant writers, policy makers, and the public and serve an intermediary function for query of more complex databases at the federal level.	Nevada Division of Welfare and Supportive Services	Phebus, Tara		118,650	6/30/2012
Health and Medical Services		UNLV		Evaluation for Southern Nevada Health District's Teen Pregnancy Prevention Project	1. Finalize data reporting protocols. 2. Finalize data reporting schedule to access participant data from SNHD system. 3. Formalize outcome evaluation protocols. 4. Collect TPP participant survey data. 5. Collect SNHD data for teen HIV/STD rates, teen pregnancy and birth rate data. 6. Track and conduct follow up interviews for TPP participants at 3 and 6 months post curriculum. 7. Complete one year end evaluation report.	Southern Nevada Health District - FPT	Phebus, Tara		155,642	9/30/2012
Health and Medical Services		UNLV		HIPPY Evaluation	Complete an outcome evaluation of the HIPPY program at the Sunrise Children's Foundation. The outcome evaluation will assess the effectiveness of the HIPPY program which will include an analysis of pre and post assessments (PPVT and AAP) to determine: (1) at least 75% of children will increase their standard PPVT score by the end of the program year; and (2) improving parenting attitudes and behaviors. In addition, NICRP will revise the parent satisfaction survey which will be distributed to parents by staff at Sunrises Children's Foundation, and NICRP will analyze the results of the satisfaction survey. NICRP will provide consultation on the evaluation design, timeline, and operational definitions based upon the stated project objectives. As part of serving as the external evaluator, NICRP will also attend SCF-HIPPY staff meetings as needed.	Sunrise Children's Foundation	Phebus, Tara		13,650	9/30/2012
Health and Medical Services		UNLV		Implementation of Choose Your Partner Carefully Campaign to Prevent Child Abuse	Campaign activities: Printing and distribution of campaign brochures, printing and distribution of campaign postcards, attendance at a minimum of 5 community events to provide information and education using campaign messages reaching an estimated 1000 people over the 6.5 month period, bus stop advertisements in at risk zip codes during the month of April, materials and information on PCANV website, and electronic newsletter about the campaign to parents and professionals working with families.	Nevada Division of Child and Family Services	Phebus, Tara		15,350	6/30/2012
Health and Medical Services		UNLV		Kindergarten Health Survey FY 12	Conduct a survey to measure the health status of children as they enter the school system.	Nevada Department of Health and Human Services Health Div	Phebus, Tara		10,304	6/30/2012
Health and Medical Services		UNLV		Kindergarten Health Survey FY 12	Conduct a parent survey to measure the health status of children as they enter the school system.	Nevada Department of Health and Human Services - Health Div	Phebus, Tara		13,739	6/30/2012
Health and Medical Services		UNLV		Kindergarten Health Survey FY 13 - FPT	Conduct a parent survey to measure the health status of children as they enter the public school system.	Nevada State Health Division	Phebus, Tara		13,705	6/30/2013
Health and Medical Services		UNLV		Kindergarten Health Survey FY 13 - State	Conduct a parent survey to measure the health status of children as they enter the public school system.	Nev. State Health Division	Phebus, Tara		10,338	6/30/2013
Health and Medical Services		UNLV		QRIS Evaluation Project	The Quality Rating Improvement System (QRIS) Pilot Program will randomly select 6 additional childcare centers in Southern Nevada to participate in the year three continuation of the pilot phase of this project. This pilot project is designed to test the rating system created by the Silver State Stars QRIS and identify areas where improvements need to be made in the rating system to make it most useful to parents and childcare centers.	United Way of Southern Nevada	Phebus, Tara		15,482	6/30/2012
Health and Medical Services		UNLV		Southern Nevada Early Childhood Advisory Council: Strategic Plan Implementation	Currently the Southern Nevada Early Childhood Advisory Council (SNECAC) has developed three goals as part of the strategic plan. Over the six month grant period, the SNECAC will work on each of the goals as well as review and revise the overall plan. More specifically, the council will 1) develop a list of individuals from both organizations and families that are willing to be contacted to participate in advocacy related activities (goal 1). 2) conduct one advocacy training to the early childhood professional community (goal 1). 3) revise the existing website and promote the council to organizations throughout Southern Nevada (goal 2), and work with all council members add their organization's information to Nevada 211 or ensure that their existing information is up to date (goal 2) 4) provide one educational workshop to the early childhood community related to medical care, parent education, family support services, or workforce development which will be decided at the first council meeting (goal 3), and 5) provide one education awareness event/resource fair targeted toward families in the community regarding the importance of early childhood development (goal 1 and 3).	Nevada Public Health Foundation	Phebus, Tara		10,000	6/30/2012
Health and Medical Services		UNLV		Cancer in Nevada - Phase 2	Create and provide a report on cancer.	Nevada Department of Health and Human Services - FPT	Pinheiro, Paulo		12,671	6/29/2012
Health and Medical Services		UNLV		INBRE - Effects of Neonatal Maternal Separation on Behavioral Responses to Amphetamines	The goal of the proposed project is to determine the effects of early life stress on behavioral sensitivity to amphetamines using the rodent neonatal maternal separation model. Previous studies in our lab have demonstrated no effect of daily maternal separation during the first week of postnatal development on subsequent behavioral responses to d-amphetamine in adult rats (Hensleigh, Smedley and Pritchard, 2011). Recent unpublished data from our lab indicate that a longer period of maternal separation (two weeks) produces sex-dependent alterations in subsequent sensitivity to the locomotor activating effects of the closely related psychostimulant drug, methamphetamine. It will be important to determine whether a longer period of separation has similar effects on sensitivity to d-amphetamine. Specifically we will subject neonatal rats to daily maternal separation or a handling control procedure throughout the first two weeks of postnatal life. During early adulthood, rats will be tested for the locomotor activating and stereotype-inducing effects of acute and sub-chronic d-amphetamine administration. Blood and brain tissue samples will also be analyzed for corticosterone and brain-derived neurotrophic factor (BDNF), respectively, as physiological markers of stress reactivity.	University of Nevada, Reno	Pritchard, Laurel		27,360	5/31/2012
Health and Medical Services		UNLV		TGF-Beta Family Regulation of Epithelial Morphogenesis	The research proposed here will address interactions between morphogens in the transforming growth factor family and those that stimulate the receptor tyrosine kinase (RTK) pathway. We will use genetic methods to investigate interactions in whole tissues, while the tissue grows or reorganizes.	National Institutes of Health	Rafferty, Laurel		705,951	4/30/2013

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Health and Medical Services		UNLV		CAT Project	CAT Dissemination - training and administering of CAT test.	Tennessee Technological University	Reiber, Carl		6,000	6/30/2012
Health and Medical Services		UNLV	University of Nevada, Reno	INBRE - Administration	As the Nevada INBRE Program Coordinator (PC) I will work with the PI (James Kenyon), the external advisory board and all the relevant Nevada institutions to facilitate the activities of the INBRE grant as outlined in the specific aims of the grant. I will also travel to appropriate meetings to disseminate, enhance and integrate Nevada INBRE activities both within- and outside the state of Nevada. My responsibilities will also entail oversight of the mentoring component of the program, oversight of the UNLV INBRE UROP program and the hiring and supervision of the INBRE outreach coordinator based at UNLV.	National Institutes of Health	Reiber, Carl		309,435	5/31/2012
Health and Medical Services		UNLV		Career: Asymmetries in Infant Processing of Faces-Origins and Implications	Objectives: 1) examine how greater experience with certain types of faces affects infant face processing and social category learning. 2) include stimulus faces of both sexes and various races in studies so as to expand knowledge about face processing and social development beyond response to facial stimuli that have commonly been used (i.e. Caucasian female faces) 3)help UNLV attract and retain exceptional students by offering a course that applies psychological research to promote social justice within the community and by providing a research training environment that uses traditional and innovative research methods appropriate for investigating infant development.	National Science Foundation	Rennels, Jennifer		400,024	4/30/2013
Health and Medical Services		UNLV		Shock and Vibration Isolation System for Patient Litters in Ground and Air Medical Evacuation	a. To develop a finite a kit capable of mitigating shock and vibration transmitted to litter patients, experienced during routine air and ground MEDEVAC, in accordance with established design requirements. b. The kit design will be verified during the development phase and validated in ground and air ambulance.	Battelle Energy Alliance, LLC	Reynolds, Douglas		720,000	5/31/2012
Health and Medical Services		UNLV		Performance Enhancement with Patterned Electrical Neuromuscular Stimulation (PENS)	A randomized experimental design will be used to test the effect of 6 weeks of PENS training on sprint speed.	Accelerated Care Plus Corporation	Rubleby, Mack		29,844	12/31/2012
Health and Medical Services		UNLV		Positive Behavior Support: Building Capacity	Provide training in positive behavior support (PBS) to families and professionals of individuals with autism spectrum disorders and challenging behaviors. Three levels of training workshops will be provided. Level 1 (universal) includes introductory workshops on autism, challenging behavior, and PBS. Level 2 (secondary) includes workshops on behavioral intervention strategies. Level 3 (tertiary) includes an intensive 2-day family and professional training on developing behavior plans for challenging behavior.	Nevada Department of Health and Human Services	Schaefer-Whitby, Peggy		85,754	6/30/2012
Health and Medical Services		UNLV		An Experimental Test of Senescence and Aging Mechanisms in a Free Living Organism	This Research Opportunity Award proposal seeks to examine natural genetic variation in worker longevity and determine flight muscle stress and protein damage, cellular protective mechanisms and functional senescence in workers with differing longevity.	National Science Foundation	Schiller, Martin		691,182	7/31/2012
Health and Medical Services		UNLV		Efficient Algorithms for Motif Search	1. Oversee all biological aspects of the project. 2. Guide the computer scientists on choice of Motif models and selection of test data. 3. Provide feedback on Project specific algorithms developed during the term of the Agreement. 4. Provide a Postdoctoral fellow, who will also work on biological aspects of the project as well as guidance for computer scientists. 5. Postdoctoral fellow will also be expected to contribute to all project developments.	University of Connecticut-FPT	Schiller, Martin		112,890	9/29/2014
Health and Medical Services		UNLV		Comparing Medication Errors Between Internationally Educated Nurses and American Educated Nurses	In partnership with 9 community hospitals, a research team led by UNLV researchers will implement a retrospective case control study and advanced multivariable analysis techniques to compare medication errors by internationally educated nurses (IENs) and American educated nurses (AENs). The project objective is to examine potential differences in medication errors between IENs and AENs. The ultimate goal is to help improve patient safety and quality of care in hospitals, as well as in other healthcare settings.	National Council of State Boards of Nursing	Shen, Jay		211,721	8/31/2013
Health and Medical Services		UNLV	University of Nevada, Reno	A Collaborative Project to Prepare Advanced Practice Nurses and Nurse Executives at the Doctorate Level	Manage and coordinate AEN Project activities at the UNLV campus. This includes coordinating the curriculum activities working with the Project Director on the objectives of the project and preparing reports.	Health Resources & Services Admin.	Smyer, Patricia		105,775	6/30/2012
Health and Medical Services		UNLV		Advanced Education Nursing Traineeship	The purpose of this proposal is to apply for traineeships with the AENT Program the the University of Nevada, Las Vegas (UNLV) School of Nursing (SON). This funding would support students in Master of Science (MSN) and Doctor of Philosophy (PhD in Nursing) Programs. These traineeships will provide funding that will pay all or part of the costs of the tuition, books, and fees of the students in these programs of advanced nurse education and the reasonable living expenses during the period for which the traineeship is provided.	Health Resources & Services Admin.	Smyer, Patricia		60,325	6/30/2012
Health and Medical Services		UNLV		Jonas Scholar Program for DNP and PhD Student	The PhD and DNP faculty of the SON will select 2 Jonas Scholars taking into account GPA, GRE scores, scholarly activity and contributions as well as the promise of becoming a successful faculty member within a SON. After discussion with the PhD and DNP faculty, it was decided to incorporate the academic leadership and research/project leadership skills. The leadership plan involves working with dual mentors, one of which will be the Dean of the School of Nursing (the Leadership Mentor). The students will enter into an agreement with Dean Yucha for specific goals they wish to achieve related to academic leadership and the student will design and complete a leadership project during year one. The other mentor will be the Research Leadership Mentor (the dissertation chair) or the DNP Leadership Mentor (the DNP Project chair) and this occurs in year 2. The unique structure of this leadership plan was developed to expose the student to the intricacies and leadership skills required within a SON and identify leadership skills needed for the research arena. The Research Leadership Mentor, who is an expert and leader in the field identified by the student, will assist the student to develop leadership in the area of research (PhD) or translational evidence based practice (DNP). The student will learn how to build a research agenda or to implement evidenced based practice interventions to become a leader in the appropriate field. Since the purpose of the second leadership component really is about becoming a leader in the specialized area of research or DNP project work the student has chosen it is expected that they will work closely with ongoing research in the mentor's area of expertise. A primary objective is to guide the student to a successful completion of the PhD or the DNP Program.	Jonas Center for Nursing Excellence	Smyer, Patricia		20,000	7/31/2014
Health and Medical Services		UNLV		Nurse Faculty Loan Program	The purpose of this grant is to provide funding to make loans available to MSN and PhD in Nursing students who will become qualified nursing faculty.	Health Resources & Services Admin.	Smyer, Patricia		102,248	6/30/2012
Health and Medical Services		UNLV		Grant to Reduce Violence Against Women on Campus	The project will address the following statutory purpose areas: 1)Establish and implement a campus wide protocol and coordinate services that effectively identify and respond to violence among campus community members; 2) Implement primary prevention programs on campus; 3) Train campus police and conduct board members on the issues of sexual assault, domestic/dating violence, and stalking; 4)Create and disseminate information to the UNLV campus at large about resources and options for victims of crime 5) Enhance response services for students by developing and coordinating UNLV opportunities to utilize campus programs and community support systems.	Office On Violence Against Women	Souza, Jay		299,960	9/30/2012

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Health and Medical Services		UNLV		Estrogen Effects After a Crush Muscle Injury and Acute Exposure to Hypobaric Hypoxia	This project will consist of two phases: 1) to validate a HH model for mice with lower extremity crush muscle injury and 2) to test whether estrogen attenuates neutrophil and macrophage infiltration, pro-inflammatory cytokine production, and altered gene expression in lower extremity crush-injured muscle exposed to HH. The long-ran usefulness of this research is that its findings might contribute to the scientific foundation for managing wounded troops in flight.	U.S. Department of Defense	St. Pierre Schneider, Barbara	University of Washington	2,263,979	2/22/2014
Health and Medical Services		UNLV		Supplemental Interlocal Agreement for Conducting the Community Facilities Energy Education Program - ARRA	This project will establish a community facility education and outreach component for the Energy Efficiency Conservation Block Grant program that would highlight the importance of renewable energy, energy efficiency, and conservation.	City of Las Vegas	Stephen, Haroon		75,000	10/25/2012
Health and Medical Services		UNLV		Health Sciences Student Support Services	The University of Nevada, Las Vegas (UNLV) is a public, metropolitan university with an undergraduate enrollment exceeding 28,000 students. With more than 220 university-degree programs, UNLV serves as the primary provider of bachelors-level, masters-level, and doctoral-level courses for the more than two million residents of Clark County, Nevada. Additionally, at UNLV, more than 700 undergraduates majoring in health-sciences disciplines are eligible to receive services from a TRiO Student Support Services (SSS) project. Annually, from 2010-2015, UNLV's HS Student Support Services project (HS-SSS) will serve 120 of the institution's SSS-eligible undergraduates who are majoring or plan to major in a health-sciences discipline. With the full support of the UNLV administration and of institutional units across the UNLV campus, HS-SSS will provide to eligible students an array of services, including course-selection advice and assistance (cf., HEA, SEC. 402D(b)(2)); individualized (i.e., tutoring) and contextualized (i.e., study groups linked to post-secondary courses) academic support (cf., HEA, SEC. 402D(b)(1)); frequent, ongoing academic-progress monitoring; financial-aid counseling (cf., HEA, SEC. 402D(b)(3)); financial-literacy counseling (cf., HEA, SEC. 402D(b)(4)); graduate/professional-school admissions and financial-aid counseling (cf., HEA, SEC. 402D(b)(5)); career-awareness activities (cf., HEA, SEC. 402D(c)(2)); and grant aid (cf., HEA, SEC. 402D(d)). These services will assist HS-SSS participants with overcoming barriers that would otherwise impede the participants' academic progress and lead to their premature departure from higher education. Furthermore, as a result of receiving these services, the HS-SSS participants will remain in good academic standing, persist in their degree programs, and graduate from the institution at rates higher than those of SSS-eligible students who receive no such assistance.	U.S. Department of Education	Sullivan, William		393,798	8/31/2012
Health and Medical Services		UNLV		Child Welfare Training Partnership	Assist the Division of Child and Family Services in the ongoing development of an integrated child welfare training delivery system. Having such a training systems allows the State to connect the agency goals, mission, values, and mandates to training and practice.	Nevada Department of Health and Human Services-Dv of C&FS	Thompson, Joanne		1,436,037	6/30/2012
Health and Medical Services		UNLV		Southern Nevada Teen Pregnancy Prevention Project	The goal of the Southern Nevada Teen Pregnancy Prevention Project is to demonstrate the effectiveness of replicating the evidence-based prevention program (BART) in reducing Southern Nevada rates of teen pregnancy and births, or associated sexual outcome behaviors among African American youth ages 14-19.	Department of Health and Human Services	Thompson-Robinson, Melva		1,119,642	8/31/2012
Health and Medical Services		UNLV		National Youth Sports Program - SPI Award - State	Fund accessible and affordable substance abuse prevention services.	Nevada Department of Health and Human Services	Troutman, Porter		107,847	6/30/2012
Health and Medical Services		UNLV		Communities Putting Prevention to Work - ARRA	Implement a comprehensive tobacco-free policy by the Spring 2013.	Southern Nevada Health District - FPT	VanBeuge, Susan		450,000	5/31/2012
Health and Medical Services		UNLV	Nevada System of Higher Education	Simulation Center Equipment/HRSA Health Care and Other Facilities Grant	Equipment- Scan-X Processor, Digital Panoramic Machine with BW Capability, Portable MASTERspace Workstations, Independent Simulation Mannequin Unit, Enterprise Storage Unit, server farm firewall, server replacements, Video/Audio Camera System for Oral Diagnosis/Surgery.	Health Resources & Services Admin.	West, Karen		389,269	8/31/2012
Health and Medical Services		UNLV		Understanding Transcriptional Silencing and Anti-Silencing Mechanisms in Shigella	The project will provide students research opportunities in the field of bacterial gene expression and transcriptional regulation, an area that is central to bacterial pathogenesis and health related research.	National Institutes of Health	Wing, Helen		405,488	4/30/2013
Health and Medical Services		UNLV		Ability of Dreissena Mussels to Survive High Turbidity Levels	UNLV will help design the experiment; UNLV will conduct the experiment; UNLV will analyze the experimental results; UNLV will submit reports to Jim Steele and Lake County. Find out whether or not water turbidity can impact the survival of adult quagga mussels and veligers. If so, the survival rates will be impacted at which level of turbidity.	County of Lake	Wong, David		21,452	5/31/2012
Health and Medical Services		UNLV		Decontamination for Wildland Firefighting Equipment	We propose a scientific investigation of the effectiveness of quaternary ammonium compounds, common cleaning agents used in homes, workout equipment at gyms, swimming pools, and hospitals, in killing quagga/zebra mussel veligers and adults.	U.S. Fish & Wildlife Service	Wong, David		118,283	7/31/2012
Health and Medical Services		UNLV		Effectiveness of EarthTec on Killing Invasive Quagga Mussels and Preventing Their Colonization in Lake Mead	Provide assistance with experimental design, standard sampling methods, sample analysis, data interpretation, summarization, and reports to (ESL) on the project Effectiveness of EarthTec on Killing Invasive Quagga Mussels and Preventing Their Colonization in Lake Mead.	Earth Science Laboratories, Inc	Wong, David		32,305	2/28/2013
Health and Medical Services		UNLV		Athletic Training Graduate Assistantships for Clark County School District	The funding requested is to provide 4 graduate assistantships for Certified Athletic Trainers (ATC) to be placed in various high schools in the Clark County School District, as directed by Mr. Jim Porter. Graduate Assistant ATC will be responsible to provide athletic training services for the indicated school an average of 20 hours per week for the school year. The work will begin in mid August 2011 and will conclude during mid May 2012.	Select Medical Corporation dba Select Physical Therapy	Young, John		103,815	8/31/2012
Health and Medical Services		UNLV	Nevada System of Higher Education	Clinical Simulation Center (UNLV School of Nursing)	Safe and effective management of patients through use of state of the art beds can decrease adverse events particularly related to progressive mobility, patient falls and skin breakdown. Additionally, safety related to staff injuries can be decreased with efficient and modern bed technology. Nursing students who have used beds that are designed for safety are prepared to deliver safe and effective care and develop an awareness of how technologically advanced equipment can be used to deliver this care. Additionally, safety related to staff injuries can be decreased with efficient and modern bed technology. Once nursing students are in the workforce, this knowledge can provide a base for advocacy for technologically efficient beds and equipment.	Health Resources & Services Admin.	Yucha, Carolyn		147,616	8/31/2012
Aerospace and Defense		UNLV		Actinide Foil Production for MPACT Research	The purpose of the research proposed is to complete the development and demonstration of the RTIL technology/methodology to prepare uDU and Th samples for use in constructing fast-neutron detectors.	Battelle Energy Alliance, LLC	Beller, Denis		156,897	9/30/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA EPSCoR RID - Travel Award	The Nevada EPSCoR program proposes to allow nine travel awards to faculty researchers and their students at the University of Nevada Reno and Las Vegas for the purpose of initiating and strengthening collaborations with NASA center personnel. The awards will provide seeding resources to potential future research in the areas of Earth-climate change science, planetary geology, astrophysics, and systems engineering for exploration and human space flight for at least eleven faculty and five to ten students at ARC, GRC, JSC, GSFC, DRC, MSFC and LARC.	NASA EPSCoR	Beller, Denis		5,759	3/31/2013
Aerospace and Defense		UNLV		Efficient Thermal Management and Temperature Amplification for Lunar Based Systems	The proposed project is the development of thermal management systems based on heat pumps that replace mechanical compressors with thermally driven sorption system of Solid-Gas Sorption Heat Pumps.	National Aeronautics and Space Administration	Chen, Yitung		146,828	9/30/2012

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Aerospace and Defense	Mining, Materials, and Manufacturing	UNLV	Nevada System of Higher Education	Alteration of Mars-Analog Clay Minerals Under Mars-Like Conditions	In this proposal, we are requesting funding to collect preliminary data for a proposal to be submitted to the Mars Fundamental Research Program in the summer of 2011. Clay minerals have been documented on the surface of Mars, however, they are most likely very ancient. The minerals have likely therefore been subjected to pedogenic and diagenetic alteration since their formation. Nontronite, a smectite clay that has been detected on Mars, will be purchased, and then altered in low-temperature Mars-analog experiments in Hausrath's laboratory, and hydrothermal Mars-analog experiments in Hurowitz's laboratory. Funding is requested for a student to assist both Hausrath and Hurowitz with the proposed experiments. The results of the work should provide useful preliminary data for a multi-year proposal.	National Aeronautics & Space Administration Space Grant	Hausrath, Elisabeth		20,000	8/31/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNLV		An Investigation Into Phosphate Mobility On Mars	The objective of this proposal are to interpret phosphate mobility on Mars to better understand the aqueous history and potential for life on the planet.	National Aeronautics and Space Administration	Hausrath, Elisabeth		84,000	7/26/2013
Aerospace and Defense		UNLV		Exploration of Biological Dark Matter in Geothermal Springs	This work addresses NASA's Scientific Goal to understand the origin and evolution of Earth life and the biosphere, which is a specific focus within the Exobiology and Evolutionary Biology program as part of the research emphasis entitled Early Evolution of Life and the Biosphere. The genomes of modern microbes represent natural repositories of the evolutionary history of life on Earth. Our work will significantly expand our knowledge of this molecular record by accessing whole genomes of major new groups of extremophilic Bacteria and Archaea that are currently known only by a single gene sequence. Since these organisms inhabit primitive Earth-like environments, genomic and emergent physiological data represent key pieces in the puzzle of the nature of early life on Earth, and may provide important insights into the early evolution of key microbial processes. In addition, this project provides a framework for understanding microorganisms with potentially fundamentally different metabolisms, which is part and parcel for evaluating the question Does life exist elsewhere in the universe?	National Aeronautics and Space Administration	Hedlund, Brian	Leland Stanford Junior University Arizona State University University of California	386,891	9/25/2014
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA EPSCoR Travel Award	The Nevada EPSCoR program proposes to distribute nine travel awards to faculty researchers and their students at the University of Nevada, Reno and Las Vegas for the purpose of initiating and strengthening collaboration with NASA center personnel. The awards will provide seeding resources to potential future research in the areas of Earth-climate change science, planetary geology, astrophysics and systems engineering for exploration and human space flight for at least eleven faculty and five to ten students at ARC, GRC, JSC, GSFC, DRC, MSFC and LARC.	NASA EPSCoR	Latifi, Sharam		3,953	3/31/2013
Aerospace and Defense		UNLV		Remote Detection of WMD Based on Hyperspectral Data Processing	The main objective of this proposal are 1) to increase knowledge of hyperspectral imaging (HSI) capabilities to detect WMD, and 2) to improve detection by investigating the synergy of simultaneous analysis of spectral signatures and wideband data contents.	Defense Threat Reduction Agency	Latifi, Sharam		156,957	6/14/2015
Aerospace and Defense		UNLV	Nevada System of Higher Education	Short Course in Biorobotics	The main objective of this short course is to present Nevada students and teachers with hands-on experience that combines principles of experimental biology and engineering in an integrative approach to biorobotics.	National Aeronautics and Space Administration	Lee, David		48,676	8/30/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	Nevada NASA Space Grant Consortium - MNGT	The Associate Director (AD) will take a leadership role in the overall program areas of Workforce Development, Research Development and Fellowships, Scholarships and Internships in conjunction with the Director, program coordinator and the NSHE sponsored programs office. The AD will work with the Director to ensure effective investments are made in strategic research and education activities in areas that benefit the state of Nevada and NASA in regards to aeronautics, astronautics, Earth systems science, space science, and related developing technologies. As such the AD will ensure timely implementation of state-wide solicitations, participate in annual meetings, submit timely progress reports and aid in the overall program administration at the state-level.	National Aeronautics and Space Administration - Space Grant	Lepp, Stephen		47,121	5/15/2015
Aerospace and Defense		UNLV	Nevada System of Higher Education	Research Infrastructure Development - Undergraduate Research and Technology Development Researcher Scholarship	To provide administrative oversight on the Research Infrastructure Development Undergraduate Research and Technology Development Researcher Scholarship Award Program. Will oversee four undergraduate research intense scholarship awards that will be made available to UNLV students conducting research in a team-like environment with a UNLV faculty mentor.	NASA EPSCoR	Lepp, Stephen		26,837	5/31/2012
Aerospace and Defense		UNLV		K15 Neutron and Gamma Modeling Phase 1, 2, 3 - Task 42	Develop model in MCNPX, create source term, execute radiation transport model and run code to estimate Neutron and Photon doses at two locations within the DAF from the Varian K15 LINAC; and to estimate Neutron and/or Photon dose points for other areas in the DAF as determined by NSTec. A. Estimate Neutron doses at two locations within the DAF from the K15. B. Estimate Photon doses at two locations within the DAF from K15. C. Estimate Neutron and/or Photon dose points in other areas in the DAF with up to 10 separate points for each particle type.	National Security Technologies	Lowe, Daniel		12,000	7/30/2012
Aerospace and Defense		UNLV		Black Hole Feedback and Galaxy Formation	This project will shed light on the role of BH feedback in the history of galaxy mass assembly, and also provide interesting input boundary conditions for other theoretical and observational astronomers who study mass accretion in active galactic nuclei.	National Science Foundation	Nagamine, Kentaro		449,317	7/31/2013
Aerospace and Defense		UNLV		Peta-Cosmology: Galaxy Formation and Virtual Astronomy	Develop two different types of codes (HTPM and Enzo AMR) for the petascale system Blue Waters. The novel architecture and refinement of the two codes for the Blue Waters will allow us to simulate a large cosmic volume while achieving high spatial/mass resolution.	National Science Foundation	Nagamine, Kentaro		40,000	3/31/2013
Aerospace and Defense		UNLV		Physical Properties of High-Redshift WFC3 Galaxies at z=7-10	We propose to examine the physical properties of high-z star-forming galaxies at z=7 - 10 using cosmological hydrodynamic simulations.	Space Telescope Science Institute	Nagamine, Kentaro		44,998	9/30/2013
Aerospace and Defense		UNLV	NV System of Higher Education	Physical Properties of the Early Universe in Hydrodynamic Simulations	The Hubble Space Telescope (HST) operated by NASA is one of the most valuable tools in Astronomy for studying galaxy formation, evolution and large scale structure of the Universe. However the immense distances and the limited spectrum detected from the observed objects make it difficult to extrapolate physical properties such as star formation histories and galaxy stellar mass, necessitating the utilization of cosmological hydrodynamic simulations. In this work we will use the cosmological smoothed particle hydrodynamics (SPH) code GADGET-3 to examine the physical and photometric properties of simulated galaxies in the early Universe, compare these to HST observations and make predictions for future NASA missions.	NV System of Higher Education	Nagamine, Kentaro		1,000	8/31/2012
Aerospace and Defense		UNLV		Support/Analysis for High Output DD-DT Support - Task 38	Engineering and Physics support to aid in the development of high output Deuterium (DD) and tritium (DT) Dense Plasma Focus machines that will be used by a consortium of users. Monte Carlo simulations and experimental validation of neutron flux and energy coming from these machines is to be performed. Modeling of neutron resonance spectroscopy systems is required as well as models of high Kelf neutron driven assemblies.	National Security Technologies	O'Brien, Robert		175,000	8/31/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	Hands-On Multidisciplinary Engineering Course With a STEM Educator Workshop Component	Goal 1: Provide a Hands-On Design and Build class for engineering students to improve their ability to create a working solution to a complex design problem. Goal 2: Improve Engineering students communications skills. Goal 3: Provide an advance robotics workshop for K-12 STEM educators. Goal 4: Provide advance robotics workshops for K-12 students and educators.	National Aeronautics & Space Administration	O'Toole, Brendan		27,775	12/31/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA EPSCoR Travel Award	The Nevada EPSCoR program proposes to distribute nine travel awards to faculty researchers and their students at the University of Nevada, Reno and Las Vegas for the purpose of initiating and strengthening collaboration with NASA center personnel. The awards will provide seeding resources to potential future research in the areas of Earth-climate change science, planetary geology, astrophysics and systems engineering for exploration and human space flight for at least eleven faculty and five to ten students at ARC, GRC, JSC, GSFC, DRC, MSFC and LARC.	NASA EPSCoR	O'Toole, Brendan		6,100	3/31/2013

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Aerospace and Defense		UNLV		Broad Emission and Absorption Lines in AGN: Contribution from Disk Winds	We propose to combine the best available hydrodynamical simulations for radiatively driven AGN disk winds with state-of-the-art multi-dimensional radiative transfer simulation to make the first quantitatively reliable predictions for the X-Ray spectral signatures (absorption and emission) which might be associated with such winds. Our spectra will be made available to the observer community for direct comparison with X-ray data.	Space Telescope Science Institute	Proga, Daniel		69,969	9/30/2013
Aerospace and Defense		UNLV		Dynamics of Matter Available for Accretion in AGN	We propose to study fluid dynamics in the central regions of active galaxies. Several key attributes of AGN, such as infall rates onto the central black hole and the geometry and rates of outward energy and momentum transfer, are determined in their central regions. However, despite many years of intensive studies, how radiation and mass outflows affect the structure of active galaxies remains uncertain, mostly because multi-dimensional geometrical effects and the dynamics of gas and dust are poorly understood. We will construct time-dependent, multi-dimensional radiation hydrodynamical simulations to study, from first principles, the morphology of central galactic flows on scales ranging from subparsec to tens of parsecs. The results of this project will reveal the basic physical properties of flows in AGN with unprecedented accuracy and detail.	National Aeronautics and Space Administration	Proga, Daniel		213,500	5/31/2014
Aerospace and Defense		UNLV	Nevada System of Higher Education	Campus Associate Director Nevada Space Grant	The Campus Associate Directors work in conjunction with the Director and Program Coordinator of the Nevada NASA Space Grant Consortium (NvSGC) by taking a leadership role on their campuses for promoting and administering the Nevada Space Grant fellowship and scholarship program.	National Aeronautics Space Administration - Space Grant	Rhee, George		4,932	7/31/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA Space Grant Consortium	Scholar/Fellow Program 2010	National Aeronautics Space Administration - Space Grant	Rhee, George		224,164	5/5/2014
Aerospace and Defense		UNLV	Nevada System of Higher Education	Near Space Weather Balloon Research	We propose to use the informal education grant money to support a program for undergraduate and high school students to build, launch and find research payloads on near space weather balloons. Near space research is an emerging field and is exciting because it is accessible. Balloon launches are a great learning and research opportunity for students. Since it is relatively easy to get to and provides an environment which is close to that of outer space, it is in this playground that students can be exposed to a rich variety of important physics and engineering problems. With the infrastructure and support of the Las Vegas Radio Amateur Club, The Las Vegas Repeater Association and the Department of Physics and Astronomy, we can give students a great opportunity to learn in an informal environment, outside of the classroom.	National Aeronautics Space Administration - Space Grant	Rhee, George		6,250	12/31/2012
Aerospace and Defense		UNLV		Rapid Dosimetry for First Responders (SHSP)	The State of Nevada Emergency Management Division has obtained funding from the Department of Homeland Security SHSP Initiative which provides support for target hardening activities to urban areas that are at high risk to terrorist attacks. UNLV's role in this project is to develop a rapid dosimetry program plan which would be used in the event of any emergency radiological events that occur in the State. The plan will be included in the Nevada Homeland Security Statewide Plan.	Clark County School District-FPT	Sudowe, Ralf		126,788	8/31/2013
Aerospace and Defense		UNLV		Rapid Dosimetry for First Responders (UASI)	The State of Nevada Emergency Management Division has obtained funding from the Department of Homeland Security Urban Areas Security Initiative which provides support for target hardening activities to urban areas that are at high risk to terrorist attacks. UNLV's role in this project is to develop a rapid dosimetry program plan which would be used in the event of any emergency radiological events that occur in the State. The plan will be included in the Nevada Homeland Security Statewide Plan.	Clark County School District-FPT	Sudowe, Ralf		276,613	8/31/2013
Aerospace and Defense		UNLV		Dynamic Space Charge Effects - Task 33	Provide faculty, a well-trained undergraduate student to conduct the following in support of the NSTec-UNLV Collaboration: Center of Excellence Pilot Projects: 1) Physical modeling of dynamic space charge effects, especially in ultrafast femtosecond region. 2) The modeling will be applicable to practical boundary conditions. UNLV shall help to locate lab space and experimental setup, to facilitate the experimental aspects of the project.	National Security Technologies	Sun, Ke-Xun		49,608	9/30/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNLV		Investigation of the Shock Mitigating Properties of Bolted Joint Connections	Hyundai Rotem has successfully developed ground weapon systems such as K2 main battle tanks (MBT) and continues to make its innovative efforts to proactively respond to the future combat environment such as unmanned weapons systems. There are some limits on welded structure of combat vehicles in combination with monocoque structure and added armors. In the future battlefield, small scaled and weight reduced structure is expected to use in unmanned weapon system. Recently, there have been wide efforts to adapt merits of commercial vehicles with frame structure in car and airplane industry to combat vehicles. As an integrated defense company, Hyundai Rotem intends to develop the technology of open architecture that consists of space frame structure and multi-functional plates. It also covers the development of a technology to significantly reduce the damage due to impact shock or mine blast. This annex is about the research on designing bolted joint connections for shock mitigation as part of a program sponsored by Korean government. Bolted joint connection in space frame will be designed to contribute to protecting combatants and electronic components inside combat vehicles by mitigating the incident shock wave and vibration.	Hyundai Rotem	Trabia, Mohamed		84,110	5/31/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNLV		Structural Blast Loading	UNLV will perform computational analysis to support the fabrication of a prototype explosive containment vessel. Analysis will primarily consist of simulating the dynamic structural response of composite vessels to blast loading. Some laboratory experiments may be needed to determine composite material properties for the vessel.	Blast Containment Inc-FPT	Trabia, Mohamed		115,299	6/30/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA EPSCoR RID - Travel Award	The Nevada EPSCoR program proposes to distribute nine travel awards to faculty researchers and their students at the University of Nevada, Reno and Las Vegas for the purpose of initiating and strengthening collaboration with NASA center personnel. The awards will provide seeding resources to potential future research in the areas of Earth-climate change science, planetary geology, astrophysics and systems engineering for exploration and human space flight for at least eleven faculty and five to ten students at ARC, GRC, JSC, GSFC, DRC, MSFC and LARC.	NASA EPSCoR	van Breukelen, Frank		2,200	3/31/2013
Aerospace and Defense		UNLV	NV System of Higher Education	NASA EPSCoR-Research Infrastructure Development-Undergraduate Research and Technology Development Researcher Scholarship	Space exploration by humans poses many physiological problems. The ability to monitor basic physiological functions is vital to understanding these problems. Currently, there are no devices that would allow one to measure blood flow with wireless telemetry. Current technologies require too much power for use in telemetry. I will exploit a passive sensor system that requires no external power to measure blood flow. The only power required would be for data communication. This sensor will allow for more accurate understanding of how space flight may affect basic biological functions.	NV System of Higher Education	van Breukelen, Frank		1,000	8/31/2012
Aerospace and Defense		UNLV		A Broad-Band Study of Gamma-Ray Bursts and Related Phenomena	Perform data analysis in the following four directions. 1. Recent Fermi observation of GRB 080916C suggests that at least for this burst, the GRB outflow is Poynting-flux-dominated. If this is common among GRBs, it has profound implications in understanding the fundamental mechanism of GRBs. We plan to test this hypothesis by analyzing prompt gamma-ray/optical data, prompt GeV data, as well as prompt gamma-ray variability information. 2. Recent GRB multi-wavelength observations suggest that it is not straightforward to define the physical category of GRB based on the duration information. We plan to further develop methods of physical classification schemes by invoking more quantitative multiple observational criteria, and use Monte Carlo simulations to address the profound question of whether all short GRBs are originated from compact star mergers. 3. A recent serendipitous discovery of XRO 080109 suggests that such X-ray transients are very common, may be associated with every Type Ib/c supernova. We plan to systematically search for XRO 080109-like events from Swift/XRT, Chandra, and XMM-Newton archives, and use the results to constrain the event rate of these transients and address their physical origin. 4. A few high-redshift GRBs have been identified, which show interesting observational properties. We plan to	National Aeronautics and Space Administration	Zhang, Bing		327,666	3/31/2013

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Aerospace and Defense		UNLV		A New Model of GRB Prompt Emission	Motivated by the Fermi observation of GRB 080916C, recently we developed a new model of GRB prompt emission in the Poynting-flux-dominated regime, namely the Internal Collision-Induced Magnetic Reconnection and Turbulence (ICMART) model. In this proposal, we propose to further develop this model in the following 3 directions: (1) an analytical study of particle acceleration and radiation in an ICMART event; (2) a numerical MHD simulation of collisions of two high-sigma shells to observe development of turbulence; (3) a multiple-shell numerical model for collisions of high-sigma shells. The results will be applied to directly model GRB 080916C and Fermi GRBs.	National Aeronautics and Space Administration	Zhang, Bing		80,000	10/31/2012
Aerospace and Defense		UNLV		Contribution to Extragalactic Diffuse Gamma-Ray Background by Pair Echoes from Off-Beam TeV Blazars	We propose to develop a new model of extragalactic diffuse background emission, which invokes the upscattered CMB photons (pair echo) by pairs produced from TeV blazars that do not beam towards Earth. Through Monte Carlo simulations of luminosity functions, redshift distribution and spectral properties of TeV blazars, we will integrate the contributions of the entire blazar population and confront the model prediction with the data.	National Aeronautics and Space Administration	Zhang, Bing		55,000	8/31/2012
Mining, Materials and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Cornelius, Andrew		1,660,206	12/31/2012
Mining, Materials and Manufacturing		UNLV		CHT 12 Participation in an International Symposium	The 5th International Symposium on Advances in Computational Heat Transfer (CHT 12) will be held July 1-6, 2012, in Bath, UK. The International Centre for Heat and Mass Transfer (ICHMT), the CFD Research Laboratory of the University of New South Wales (UNSW), Australia, the ASME Heat Transfer Division (HTD), and the University of Bath, UK will sponsor the symposium. This is an international conference on state-of-the-art and promising computational techniques applied to heat transfer, and will assemble scientists and engineers working in the fields related to, and requiring, computational methods for modeling all modes of heat transfer, including coupling with fluid flow and related multiphysics interactions. This proposal is to request travel support of \$15,750 to fund researchers, principally junior and underrepresented minority faculty and graduate students, from the US.	National Science Foundation	Pepper, Darrell		15,750	10/31/2012
Mining, Materials and Manufacturing		UNLV		Collaborative Research: Integrated Investigations of Isotopic Fractionation in Magmatic Systems	Simon will perform experiments and Lundstrom will analyze the run products, to determine isotope fractionation factors for Fe, Mg and Si by using a multi-capsule technique in two separate melt + crystals + vapor assemblage. Our proposed experimental plan allows us to constrain isotope fractionation among melt, crystals and assemblage.	National Science Foundation	Simon, Adam		132,446	7/31/2013
Mining, Materials and Manufacturing		UNLV		Mineral Assessment of Northern Nye County, NV	Expand our understanding of mineral resources in northern Nye County, Nevada. This information will be used to aid in land use planning for Nye County.	U.S. Geological Survey	Simon, Adam		69,032	9/30/2012
Mining, Materials and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Simon, Adam		664,793	12/31/2012
Mining, Materials and Manufacturing		UNLV		Solvent/Nitric Acid System Investigation - Red Oil	UNLV/HRC will investigate the following research interests: 1. Identification of the degradation products of TBP during a runaway reaction in the presence of uranium. The techniques used will be ESI-Mass Spectrometry, GC MS. 2. Speciation of Uranium/TBP/HNO ₃ during a runaway reaction. The different species of uranium formed with TBP as well as the TBP degradation products will be assessed by UV Vis, Laser spectroscopy. Complexation constants of U and the TBP degraded species will be evaluated. 3. Kinetic data and thermodynamic data for the degraded TBP species which are butanol, butyl nitrate, DBP, MBP. The role of uranium in affecting the production rates of degraded organics will be evaluated. 4. Studies of the influence of other metal nitrates on a red oil event. 5. Investigation of the role of the diluent in a red oil event. 6. Phase inversion investigation caused by the presence of metal ions in the aqueous phase that can solvate with TBP.	AREVA NC	Sudowe, Ralf		270,805	5/31/2012
Mining, Materials and Manufacturing		UNLV		Mathematical Modeling of Biomolecule Translocation through Nanopores	The goal of this proposal seeks to develop a continuum-based mathematical model to gain a fundamental knowledge necessary to design a label-free, low-cost, high-speed, and high-throughput DNA sequencing method using nanopores. Nanopores are emerging as a promising candidate for the development of a third generation sequencing device which will meet the goal of a \$1,000 human genome sequencing paradigm set by the National Institute of Health. Many experimental data on DNA molecule translocation through a nanopore has been collected for the last decade, but a simple continuum-based model that describes the translocation process in statistical terms and can be directly compared with an ensemble average observed by experiments is still lacking. Limited existing analytical continuum models still cannot fully explain experimental observations. Simple physical arguments suggest that concentration polarization and the shape of the nanopore may be able to bridge the discrepancy of the tether force or translocation velocity between the experimental results and the theoretical predictions from existing simple continuum models. Thus the specific aims are to (1) Explore the role of concentration polarization using our proposed continuum-based mathematical model; (2) Examine the feasibility of using salt concentration imposed externally across the nanopore to regulate DNA translocation	National Institutes of Health	Zhao, Hui		69,349	1/31/2013
Mining, Materials and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with some modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Zhao, Yusheng		11,564,219	12/31/2012
Mining, Materials and Manufacturing		UNLV		Non-Flammable Crew Clothing Utilizing Phosphorous-Based Fire Retardant Polymers	The objective of this Phase II project is to continue the engineering development of heat and flame-resistant crew clothing (FRECCLO) to satisfy NASA needs.	InnoSense LLC	Bhowmik, Pradip		50,750	6/2/2013
Mining, Materials and Manufacturing		UNLV		Mineral Physics Educational Modules for Advanced Undergraduates and Graduate Students	Assemble four web-based educational modules for inclusion in a course entitled Introduction to Mineral Physics for entry level graduate students and advanced undergraduate students.	University of Illinois	Burnley, Pamela		86,346	5/31/2013
Mining, Materials and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Burnley, Pamela		1,136,302	12/31/2012
Mining, Materials and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Chen, Changfeng		1,476,609	12/31/2012
Mining, Materials and Manufacturing		UNLV		TE-HVAC Program: Computational Materials Research	UNLV's effort on this new project will be focused on theoretical first-principle calculations of nano-composites.	General Motors Corporation	Chen, Changfeng		565,370	10/31/2012
Mining, Materials and Manufacturing		UNLV		Mineralization of Northern Nye County	Expand our understanding of mineral resources in northern Nye County, Nevada. This information will be used to aid in land use planning for Nye County.	U.S. Geological Survey	Cline, Jean		64,272	9/30/2012

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Mining, Materials, and Manufacturing		UNLV		High Pressure X-Ray Absorption Studies on Correlated-Electron Systems	This project intends to combine the areas of expertise to perform high-pressure x-ray absorption measurements. In addition, numerous other physical property measurements will be performed as required for a thorough understanding of the effect of pressure on correlated-electron systems.	U.S. Department of Energy	Cornelius, Andrew		563,811	6/30/2013
Mining, Materials, and Manufacturing		UNLV		Gas Puff Modeling and Experiments for Dense Plasma Focus Accelerations - Task 35	Conduct numerical studies and experiments for the purpose of analyzing and improving the performance of an injected gas puff on a DPF system during a pinch.	National Security Technologies	Culbreth, William		29,998	6/30/2012
Mining, Materials, and Manufacturing		UNLV		09-285 Utilization of Methacrylates and Polymer Matrices for the Synthesis of Ion Specific Resins	This proposal addresses the need for new and innovative methods for the selective separation of actinides through novel ion imprinted resins.	Battelle Energy Alliance, LLC	Czerwinski, Kenneth		650,300	9/30/2012
Mining, Materials, and Manufacturing		UNLV		09-350 Quantification of UV-Visible and Laser Spectroscopic Techniques for Materials Accountability and Process Control	In this project UV-Visible and TRLFS will be evaluated for use in proposed GNEP solvent extraction based separations. Studies are also ongoing using TRLFS to evaluate Cm speciation and concentration in the TALSPEAK process.	Battelle Energy Alliance, LLC	Czerwinski, Kenneth		494,935	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Natural Uranium Oxide Samples	Subcontractor shall furnish and deliver natural uranium oxides samples to LLNL. Samples shall be prepared from triuranium octoxide, uranium dioxide and uranyl fluoride starting materials using at least three different isotopic starting compositions at temperatures of 100 200, 300, 400 and 700 degree Celsius. Final specifications shall be agreed upon between LLNL and subcontractor. Subcontractor shall characterize reactants and products using powder x-ray diffraction and prepare samples of each suitably for shipment to LLNL.	Lawrence Livermore National Laboratories	Czerwinski, Kenneth		10,000	7/1/2012
Mining, Materials, and Manufacturing		UNLV		Production of Surrogate Epsilon Metal Alloys and UO2 Ceramic Materials	The work scope involves the production and preliminary characterization of four alloys representing epsilon metals formed in uranium dioxide fuels and one uranium dioxide ceramic material for use in experiments being conducted at ANL as part of the DOE Fuel Cycle Research and Development (FCRD) program. These materials will be formed into electrodes and used in experiments to study the impact of the catalytic activity of the epsilon metal on the dissolution behavior of uranium dioxide.	Argonne Nat'l Lab	Czerwinski, Kenneth		25,001	2/19/2013
Mining, Materials, and Manufacturing		UNLV		Synthesis and Characterization of Technetium Halide and Oxide Compounds	This Scope of Work involves preparation and characterization of technetium compounds containing halides and oxide. These materials may be potential hosts for the immobilization and disposal of the isotope technetium-99. Technetium-99 is a long-lived isotope and major fission product in used nuclear fuel and a long-term threat to the biosphere. Some of the low-valent technetium chlorides and oxides have extremely low water solubility and may provide a material form of disposal of technetium in a geological repository. The focus of the synthetic work will be on systems with a consistent variation in the sample composition that provides a focal point for evaluations.	Los Alamos Nat'l Lab	Czerwinski, Kenneth		40,000	7/31/2012
Mining, Materials, and Manufacturing		UNLV		MRI: Acquisition of an Ultra-Low Background Gamma Spectroscopy Platform for Measuring Ionizing Radiation - ARRA	Acquisition of a research-grade gamma spectroscopy instrument.	National Science Foundation	Das, Biswajit		397,316	8/31/2012
Mining, Materials, and Manufacturing		UNLV		REU Site in Materials and Astrophysics	Students are recruited nationally, with preference for students from the western U.S., students from underrepresented groups, and students from institutions with limited research facilities. None of the students supported by this grant will be UNLV students. The program involved laboratory research, a seminar series, and a student poster session at the end of the summer. Students live in the dorms and eat their meals together, thus fostering group interaction. Students will have an opportunity to visit major national facilities at the Nevada Test Site and at either the Advanced Light Source (ALS) at Lawrence Berkeley National Laboratory or the Advanced Proton Source (APS) at Argonne National Laboratory. Roughly half of the students will participate in research at the ALS or APS, but all students will visit these facilities, and all students will perform research using the facilities on the UNLV campus. Thus students will get a research experience in both Small Science and at least an introduction to Big Science. Project evaluation will be handled by an external evaluator, the Nevada Center for Evaluation and Assessment at UNLV.	National Science Foundation	Farley, John		38,250	3/31/2013
Mining, Materials, and Manufacturing		UNLV		REU Site in Materials and Astrophysics - Participant Support	Students are recruited nationally, with preference for students from the western U.S., students from underrepresented groups, and students from institutions with limited research facilities. None of the students supported by this grant will be UNLV students. The program involved laboratory research, a seminar series, and a student poster session at the end of the summer. Students live in the dorms and eat their meals together, thus fostering group interaction. Students will have an opportunity to visit major national facilities at the Nevada Test Site and at either the Advanced Light Source (ALS) at Lawrence Berkeley National Laboratory or the Advanced Proton Source (APS) at Argonne National Laboratory. Roughly half of the students will participate in research at the ALS or APS, but all students will visit these facilities, and all students will perform research using the facilities on the UNLV campus. Thus students will get a research experience in both Small Science and at least an introduction to Big Science. Project evaluation will be handled by an external evaluator, the Nevada Center for Evaluation and Assessment at UNLV.	National Science Foundation	Farley, John		246,750	3/31/2013
Mining, Materials, and Manufacturing		UNLV		Characterization and Modeling of Materials for Kr-Xe Separations	This proposal will carry out research into the adsorption of Kr and Xe on nanoporous substrates with the aim of identifying materials that can be used to practically separate the two gases. In addition, we will examine the feasibility of sequestering of Kr in a nanoporous host. If successful, this may allow for long-term storage within a concrete-like medium with a pedigree as a waste form.	Battelle Energy Alliance, LLC	Forster, Paul		989,800	7/26/2013
Mining, Materials, and Manufacturing		UNLV		History and Origin of Mineral Deposits in Northern Nye County, NV	Expand our understanding of mineral resources in northern Nye County, Nevada. This information will be used to aid in land use planning for Nye County.	U.S. Geological Survey	Hanson, Andrew		210,585	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Thermal Impacts of Salt Research Consortium (Andarko Petroleum Corporation)	The objectives of this consortium are to: 1) document the variability in thermal histories adjacent to different types of diapirs, welds, walls and mini-basins and determine the controls on that variation, 2) document the impact of depressed thermal maturities on preservation of reservoir quality, 3) document the impact on thermal maturities associated with different structural levels of salt structures, 4) document the thermal variability associated with different types of allochthonous salt bodies and 5) characterize the nature of fluid flow associated with salt features.	Various	Hanson, Andrew		32,000	9/30/2013
Mining, Materials, and Manufacturing		UNLV		Advanced Thermophysical Properties Measurements	The initial task is to develop techniques and define operational limitations using non-radioactive materials with known properties. UNLV will be represented by Dr. Hartmann who will act as UNLV PI to direct, conduct and supervise the progress on the following research tasks: Task 1: Obtain calibrated stage. This activity will procure the calibrated stage necessary to perform these measurements. Task 2: Apply material with known thermophysical properties to the stage and compare measured properties with published data. There are two objectives to this task: (1) develop methods for applying sample material to the stage, and (2) determine the minimum amount of material that can be used to obtain accurate and reliable data. Task 3: Measure thermophysical properties of one or more actinide elements and/or actinide-containing binary systems provided by the INL.	Idaho National Laboratory	Hartmann, Thomas		51,000	6/30/2012

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Mining, Materials, and Manufacturing		UNLV		Transport Characteristics and Solubilities of Lanthanides in Stainless Steels Under Molten Alkali Conditions	The science-based objective is to investigate lanthanide and metal dopant behaviors in molten alkali metals. The results-oriented objective is to characterize select dopants for their stabilizing action for eventual irradiation testing in ATR.	Idaho National Laboratory	Hartmann, Thomas		230,000	12/31/2012
Mining, Materials, and Manufacturing		UNLV		Chemistry of SOFC Cathode Surfaces: Fundamental Investigation and Tailoring of Electronic Behavior	To study the electronic and chemical properties of SOFC cathode surfaces and interfaces, we will utilize a world-wide unique tool chest of different experimental methods and apply the SOFC cathode samples produced within this project.	Massachusetts Institute of Technology	Heske, Clemens		241,175	3/30/2013
Mining, Materials, and Manufacturing		UNLV		Neutron Tomography - Refinement of Analytic and Stochastic Multiple Detector Models - Task 36	Refinement of analytic and stochastic multiple detector models. Stochastic systems: continued refinement of the various stochastic/Monte-Carlos reconstruction approaches. Analytic methods: continued refinement and investigation into the various fixed reconstructed time and energy spectra. Methods to study the effect of detector placement on the quality of the reconstructed time and energy spectra. Investigation into the effects of uncertainties in detector and measurement system responses on the quality of reconstructions for the various methods.	National Security Technologies	Kachroo, Pushkin		59,492	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Theoretical Surface Science Approaches to Corrosion of Tc-Fe-Mo Alloy Wasteforms	Technetium-alloy wasteforms and their oxidation/corrosion properties will be investigated from first-principles. Specifically, the spin-polarized density functional theory (DFT) implemented in the Vienna Ab initio Simulation Package (VASP) will be utilized for the modeling work. The proposed research effort will be carried out over a three-year period and will focus on the study of Tc-Fe and Tc-Mo alloys and the comparative stabilities of Tc and Re in the iron oxide phases.	Los Alamos Nat'l Lab	Kim, Eunja		100,000	9/30/2012
Mining, Materials, and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Kumar, Rahvi		555,737	12/31/2012
Mining, Materials, and Manufacturing		UNLV		CAREER: Smart Molecular Design for One-Dimensional n-Type Nanostructures: Controlling Electronic Properties and Morphologies	The main objectives of this research are to develop a fundamental understanding of the structure-property relationship in terms of the tunability of the electron-deficiency, and to enhance the controllability of the 1D nanostructure morphologies derived from the new n-type materials.	National Science Foundation	Lee, Dong-Chan		393,700	6/30/2014
Mining, Materials, and Manufacturing		UNLV		CAREER: Smart Molecular Design for One-Dimensional n-Type Nanostructures: Controlling Electronic Properties and Morphologies - Participant Support	The main objectives of this research are to develop a fundamental understanding of the structure-property relationship in terms of the tunability of the electron-deficiency, and to enhance the controllability of the 1D nanostructure morphologies derived from the new n-type materials.	National Science Foundation	Lee, Dong-Chan		18,300	6/30/2014
Mining, Materials, and Manufacturing		UNLV		Geometrical and Dynamical Effects in X-Ray Interactions with Molecules	The proposal has two main thrusts: (1) probing limits of the dipole approximation, the simplest reasonable treatment of photon interactions, in photoionization, and (2) resonant inelastic x-ray scattering (RIXS), or x-ray emission, from molecular targets.	National Science Foundation	Lindle, Dennis		435,000	6/30/2013
Mining, Materials, and Manufacturing		UNLV		Geometrical and Dynamical Effects in X-Ray Interactions with Molecules - REU Supplement	This supplemental request is for REU support for Ms. Anna Childs, a Mathematics major at UNLV who is assisting my research group in analyzing data collected under the auspices of the grant. She is a U.S. citizen. Her primary effort will be in developing a new fitting procedure for the time-of-flight photoemission spectra we use in studying nondipole photoemission effects. Her expertise in math will be very helpful in this regard.	National Science Foundation	Lindle, Dennis		5,000	6/30/2013
Mining, Materials, and Manufacturing		UNLV		Operation of ALS Beamline 9.3.1	Designate Wayne Stolte as the responsible beamline scientist during the period of September 1, 2011 - August 31, 2012. As a beamline scientist for beamline 9.3.1 at the Advanced Light Source, Wayne Stolte will be responsible for the following duties: safety, operation and scheduling, improvements to performance and operation, and scientific outreach.	Lawrence Berkeley National Laboratory	Lindle, Dennis		283,705	8/31/2012
Mining, Materials, and Manufacturing		UNLV		NCNS Down-Hole Accelerator Angled Hole - Task 43	Fabricate two parts from pieces of aluminum per attached Drawing Nos. ND-2403094 and ND-2403096. The specified material of each is 6061-T6 aluminum. The parts must meet the specs on each drawing.	National Security Technologies	Lowe, Daniel		1,000	6/30/2012
Mining, Materials, and Manufacturing		UNLV		Identifying and Understanding Environment-Induced Crack Propagation Behavior in Ni-Based Superalloy INCONEL 617 (09-075)	The goal of the proposed project is to study the crack propagation process of alloy 617 at temperature of 650-950 C in air under static/cyclic loading conditions to identify environmental and mechanical damage components, and then to understand in-depth the failure mechanism.	Battelle Energy Alliance, LLC	Ma, Longzhou		317,700	9/30/2012
Mining, Materials, and Manufacturing		UNLV		TEM Characterization of Pu Contained Soil Samples	The work performed at subcontractor location shall consist of laboratory manipulation of wet and dry samples to extract desired aliquots with Pu-contamination, and to perform detailed morphological and structural analysis of the samples using TEM.	Los Alamos Nat'l Lab	Ma, Longzhou		6,000	6/15/2012
Mining, Materials, and Manufacturing		UNLV		Theoretical Investigations of Molecular Collisions and Chemical Reactions at Ultracold Temperatures	The objective of this proposal is to explore two key issues that are central to current research on ultracold molecules.	National Science Foundation	Naduvallath, Balakrishnan		182,354	7/31/2013
Mining, Materials, and Manufacturing		UNLV		Neutron Detector Characterization - Task 34	NSTec researchers will use the Pu-Be neutron source at UNLV to investigate the thermal neutron response in a variety of detectors. The characterization work will be spread over a series of sessions in FY 12. UNLV will provide access to Pu-Be neutron sources, however UNLV will manipulate and maintain the source.	National Security Technologies	O'Brien, Robert		7,000	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Resource Conservation and Sustainable Las Vegas - Task 1	This research project will develop educational, research, and outreach activities that address the challenges of Las Vegas related to a secure energy supply through conservation, clean and adequate water supply, economic growth and diversification, air quality, and the best use of land, and usable public places.	U.S. Department of Energy	Piechota, Thomas		490,246	5/31/2013
Mining, Materials, and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressure and temperatures experienced by weapons materials.	U.S. Department of Energy	Pravica, Michael		1,175,671	12/31/2012
Mining, Materials, and Manufacturing		UNLV		Collaborative Research: Links Between Magma Source Characteristics, Shallow Plumbing, and Eruptive Styles in Mafic Intraplate Volcanic Fields (Lunar Crater Volcanic Field, Nevada)	We hypothesize that there are systematic links between eruptive scale and style and the characteristics of magma sources, including the scale and composition of local mantle heterogeneities, in intraplate volcanic fields in general. While there are variations in detail due to shallow processes (changes in dike/conduit geometry, degassing), these systematic deep relationships are the main determining factor in defining the eruptions. The proposed work will test this hypothesis by integrating a range of data from the Lunar Crater Volcanic Field (central Nevada).	National Science Foundation	Smith, Eugene		173,244	7/31/2013
Mining, Materials, and Manufacturing		UNLV		High Speed Electronics, Using Novel Wide Bandgap Semiconductor Devices - Task 32	Provide faculty, a well-qualified undergraduate or graduate student to conduct the following in support of the NSTec-UNLV Collaboration: Center of Excellence Pilot Projects: 1) Circuit prototyping, test and modeling of GaN and SiC device based electronics circuitry; 2) Functional electronic boards with applicable system technologies based on GaN and SiC devices. UNLV shall provide lab space and help experimental setup, to facilitate the engineer aspects of the project.	National Security Technologies	Sun, Ke-Xun		50,000	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Cataloging Legacy Seismic Data - Task 39	Cataloging and digitization of relevant legacy data records. Digitally catalog the dates, times and locations of the analog legacy data housed at NSTec and other locations, as available. The cataloging will allow researchers to search the database by event and location, and other factors to be determined, such as signal amplitude and duration. The final step of this phase of the project will be to test methods of conversion of the data from analog to digital.	National Security Technologies	Taylor, Wanda		221,715	2/28/2013

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Mining, Materials, and Manufacturing		UNLV		Collaborative Research: Dynamic Disproportionate Collapse in Flat-Plate Buildings	The goal of this research is to provide urgently needed experimental data and effective modeling approaches for the disproportionate collapse of older reinforced concrete flat-plate buildings.	National Science Foundation	Tian, Ying		159,986	5/31/2014
Mining, Materials, and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	Continue further studies of lanthanide compounds with respect to compression-induced transitions to low-symmetric or modulated phases.	U.S. Department of Energy	Tschauner, Oliver		903,510	12/31/2012
Mining, Materials, and Manufacturing		UNLV		Feasibility Study on the Monitored Retrievable Geological Repository	We propose to study the following three issues focused on retrievability as an idea to solve different problems related with the repository for high level radioactive waste (including SNF): policy making, site selecting, construction and operation. This study will address current efforts of using the retrievability concept in the design of the geological repository in other countries, and assess critical issues existing in the design.	Sandia National Laboratories	Yim, Woosoon		149,380	12/31/2012
Mining, Materials, and Manufacturing		UNLV		II NEW: Collaborative Research: Robotic Catheterization Using Ionic Polymer-Metal Composite Actuator	In this research, the fundamental framework to develop active catheters using an Ionic Polymer-Metal Composite (IPMC), highly active electro-active polymer, with controllable features is proposed. To accomplish the proposed framework, this proposal requests to support for the acquisition of necessary equipment to create two laboratories at University of Nevada, Las Vegas (UNLV) and University of Nevada, Reno (UNR).	National Science Foundation	Yim, Woosoon		321,898	5/31/2013
Business IT Ecosystems		UNLV		2012 Kids Count Nevada	Prepare, publish and disseminate the data products on the condition of children and families. Maintain accurate, up-to-date and sub-state level data through an interactive online data system such as the KIDS COUNT Data Center. Serve as a clearinghouse within Nevada for materials from the Foundation and others, including the national KIDS COUNT Data Book and other relevant reports, studies, publications, and/or films. Serve as a resource within Nevada for state and county-level data across the range of issues that affect children and families, with a focus on providing regular data and analysis for policymakers, the media, and the general public. And actively participate in the KIDS COUNT Network and relevant convenings planned by the Foundation.	Annie E. Casey Foundation	Brown, Stephen		75,000	12/31/2012
Business IT Ecosystems		UNLV		Clark County Population Forecasts	Produce a series of three (3) annual forecasts using the most current version of the software publicly available. Each forecast will address population and employment in Clark County, Nevada and will include projections in yearly increments for a period of thirty (30) years, or other time period as agreed by the parties. CBER will consult with SNRPC, RTC, SNWA, and others as CBER deems necessary to produce the forecasts and shall provide copies in electronic form to all parties.	Southern Nevada Regional Planning Coalition	Brown, Stephen		108,000	6/30/2014
Business IT Ecosystems	Clean Energy	UNLV	Nevada System of Higher Education	Cyberlearning in Climate Change - ARRA	The intent and purpose of the newly funded Nevada NSF EPSCoR Cyberinfrastructure 2 (C2) program is to enhance connectivity within the Nevada System of Higher Education (NSHE) to achieve higher network speeds and capacity to advance NSHE education and research. The proposed project will provide Nevada research institutions with the requisite connectivity to the internet and high performance research networks and training to meet internal connectivity and collaboration needs and compete effectively with tier one research institutions for research, education, and collaboration opportunities.	NSF EPSCoR	Crippen, Kent		12,799	8/31/2012
Business IT Ecosystems		UNLV		UNLV IB Project	This proposal comprises a suite of activities to bring these elements - students, business community, international contacts, faculty - into interaction with each other. Specific activities focus on experiential learning to bring students and practitioners of international business into contact, support for study abroad to provide students with international experience, and grants for faculty research and development to integrate faculty into international business.	U.S. Department of Education	Jameson, Melvin		123,403	6/30/2013
Business IT Ecosystems		UNLV		Development of Remote Erasure of Information Stored on Mobile Phones	This research project will involve the following: (1) Perform literature survey to find out the basic methodology and technology available to perform remote erasure; (2) Software will be built to perform remote erasure on various platforms, such as the I-phone; (3) The prototype will be demonstrated showing the erasure procedure; (4) The software code to perform the erasure will be delivered; (5) The final report will contain all the details, flow chart, user and developer guide for the system.	Jayn International	Kachroo, Pushkin		30,000	5/31/2013
Business IT Ecosystems		UNLV	Nevada System of Higher Education	Liquid Crystal-Based Beam Steering for Wireless Power Transmission in Space	This proposal intends to build research infrastructure in space science through investment in an enabling technology in Wireless Power Transmission (WPT). Specifically, we propose investigating architecture efficiency in the area of electronic beam steering for future use in WPT applications.	National Aeronautics and Space Administration	Latifi, Sharam		19,429	12/31/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 6 (Cyber)	1. Start developing research infrastructure in accordance with the objectives and outcomes of the project. 2. Coordinate efforts in conjunction with CENIC and other relevant initiatives. 3. Organize steering committee meetings and hire graduate students. 4. Purchase equipment.	EPSCoR NSF	Latifi, Sharam		256,733	6/30/2013
Business IT Ecosystems		UNLV		The 8th International Conference on Scientific Computing and Applications	Scientific Computing becomes a rapidly growing multidisciplinary field that uses advanced computing capabilities to understand and solve complex problems in sciences, engineering, and humanities. In recent years, there are many important progress made in this field. In order to disseminate and put the state-of-the-art computational techniques into broad applications, we propose to host The 8th International Conference on Scientific Computing and Applications at the University of Nevada, Las Vegas (UNLV) during April 1-4, 2012. The aim of this proposed four-day research conference is to bring together computational scientists from several disciplines in order to exchange the original ideas and methods. We are expecting 80-100 participants with 8 invited plenary 45-minute talks. In addition, several parallel sessions of 30-minute talks are planned. Some exemplary sessions are Scientific Computation for Electromagnetic Waves, Numerical Methods for Stochastic PDEs, Computational Methods for Multiphase Flow in Porous Media, Modeling and Numerical Methods for Renewable Energy, and Meshfree/Meshless Methods. A refereed conference proceeding will be published either as a book in AMS Contemporary Mathematics series or as a special issue of a computational science journal.	National Science Foundation	Li, Jichun		20,660	9/30/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 6 (Cyber) Faculty Start Up	Start-up funds for new faculty hire. 1. Start developing research infrastructure in accordance with the objectives and outcomes of the project. 2. Coordinate efforts in conjunction with CENIC and other relevant initiatives. 3. Organize steering committee meetings and hire graduate students. 4. Purchase equipment.	NSF EPSCoR	Morris, Brendan		96,750	8/31/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	NSF EPSCoR Cyberinfrastructure Development - Mgmt - Task 1	Funds are to be used for travel to the Annual Tri-State Consortium Meeting in Sun Valley, Idaho. Participants include faculty and staff working on both the Track 2 and Track 1 NSF EPSCoR projects. Tom will be responsible for recruiting participants and processing expenses.	NSF EPSCoR	Piechota, Thomas		37,152	6/30/2013
Business IT Ecosystems		UNLV	Nevada System of Higher Education	Advanced Computer Vision, Robotics, and Visualization Algorithms for Improving Planetary Exploration and Understanding	The main goal of this project is to advance NASA's technologies so as to improve planetary exploration and understanding in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames. In particular, the project aims to (1) build significant research capacity in Nevada in areas of strategic importance to NASA while at the same time contributing to NASA's research priorities, (2) achieve national research competitiveness and self-sufficiency, (3) improve STEM education and enhance Nevada's graduate programs in Computer Science and Engineering, (4) improve economic development in Nevada, and (5) promote the education, research, and public service priorities of the NASA Space Grant Consortium.	NASA EPSCoR	Regentova, Emma		124,101	8/31/2014

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Business IT Ecosystems		UNLV	NV System of Higher Education	Advanced Computer Vision, Robotics, and Visualization Algorithms for Improving Planetary Exploration and Understanding - State Match	The main goal of this project is to advance NASA's technologies so as to improve planetary exploration and understanding in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames. In particular, the project aims to (1) build significant research capacity in Nevada in areas of strategic importance to NASA while at the same time contributing to NASA's research priorities, (2) achieve national research competitiveness and self-sufficiency, (3) improve STEM education and enhance Nevada's graduate programs in Computer Science and Engineering, (4) improve economic development in Nevada, and (5) promote the education, research, and public service priorities of the NASA Space Grant Consortium.	NV System of Higher Education	Regentova, Emma		14,977	5/13/2013
Business IT Ecosystems		UNLV		Fundamental Research on Universal Video Imaging Sensor	UNLV shall provide the fundamental research effort in the following general areas: a. Digital Wireless Transceiving; b. Network Architecture; c. imaging Sensor Communication; d. Compression and Encryption Algorithms.	Latel Corporation	Saberinia, Ebrahim		225,000	11/30/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	C4D Expansion - ARRA	Apple MacBook Learning Lab	NSF EPSCoR	Schrader, PG		13,199	7/31/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	Cyberinfrastructure Development for the Western Consortium of Idaho, Nevada, and New Mexico - Task 4	The goal of this project is promote knowledge transfer to scientists, educators, students, and citizens within and beyond the Consortium by enhancing state CI, and to enable the community science that is required to address regional to global scientific and societal challenges.	NSF EPSCoR	Schrader, PG		320,234	6/30/2013
Business IT Ecosystems		UNLV		Internal Auditing Education Partnership	The objective would be to develop a simulated operational audit to be used in the Internal Auditing class. For a number of years, a key component of this class has been an actual audit of a department, program or process in the university. Decreases in instructor resources and budget cuts resulting in fewer professional and classified staff in the university have made this project infeasible. The goal would be to create a simulation of an audit that would utilize a variety of multimedia methods to replicate a real-world experience as much as possible.	Institute of Internal Auditors	Tandy, Paulette		10,900	6/1/2012
Business IT Ecosystems		UNLV		Special Impact Zone	The Nevada Small Business Development Center has consolidated the office known as the North Las Vegas Sub Center into the UNLV NSBDC main office. From the main UNLV office, the NSBDC continues to provide business counseling, training, literature, DBE and environmental and safety services to business and interested individuals wishing to start a business or improve an existing business within the North Las Vegas area and the Special Impact Zone. NSBDC will also continue to provide and sponsor training programs and seminars covering relevant business topics on a regular basis to the citizens of North Las Vegas. The NSBDC will provide advertising and direct mail notices to clients and will engage in other marketing efforts to promote all NSBDC service and training seminars. Wherever possible, these items will be provided free of charge to residents of the impact zone. Larry Vierra (Spanish-speaking counselor), will serve as the NSBDC counselor primarily responsible for the city of North Las Vegas and the Special Impact Zone with Janis Stevenson serving as the backup counselor. He is assigned to attend committee meetings and chamber functions, be a member of applicable boards and to be available to address any concerns brought to the attention of the NSBDC by those in the North Las Vegas area and Special Impact Zone.	Nevada Commission on Economic Development	Vierra, Larry		20,754	6/30/2012
Business IT Ecosystems		UNLV		MR1: Development of a Highly Scalable and Reconfigurable Testbed in Support of Future Many-Core and System-on-Chip Research and Design Exploration	PIs are proposing to develop a highly scalable and reconfigurable multi-board-based testbed which can emulate and validate future large-scale many-core and system-on-chip systems. In specific, this testbed will be able to efficiently and effectively emulate all the functionalities that are perceived at both the NoC and the full-system levels.	National Science Foundation	Yang, Mei	Purdue University	499,999	8/31/2014
Logistics and Operations		UNLV		Effects of Data Quality on Predictive Hotspot Mapping	The purpose of the proposed research is to contribute to the improved robustness of predictive crime mapping techniques. The research goal is to investigate the effect of data quality on predictive hotspot mapping techniques.	National Institute of Justice	Hart, Timothy	University of New Mexico	193,040	8/31/2012
Logistics and Operations		UNLV		Application Specific Scenario Evaluation Using Driving Simulator - UTC	The main objective of this project is the development of the driving simulator so that we can perform the following studies: distracted driving study, outreach program for effects of impaired driving, training/re-training program for senior drivers, program to conduct simulated tests and surveys for new proposed traffic modifications.	Nevada Department of Transportation	Kachroo, Pushkin		0	6/30/2012
Logistics and Operations		UNLV		Daytime Seatbelt Usage Surveys	To conduct the 2012 day time seat belt usage rate observational surveys for the State of Nevada that conforms to NHTSA's Uniform Criteria for State Observational Surveys of Seat Belt Use. The Transportation Research Center (TRC) at the University of Nevada, Las Vegas proposes to continue conducting surveys across the State of Nevada to determine the rates of seat belt usage in motor vehicles. Media and education campaigns have been conducted and are expected to be conducted in the State of Nevada to increase the rate of use of seat belts. The proposed surveys will serve as an evaluation component of such programs. A detailed statistical analysis will be done to compare pre-campaign and post-campaign results. This survey will help in identifying potential opportunities to develop specific initiatives to increase the rate of seat belt usage.	Nevada Office of Traffic Safety	Kachroo, Pushkin		72,293	9/30/2012
Logistics and Operations		UNLV		Evaluation of Child Safety Seat Usage and Related Programs in Nevada	The project aims to help reduce the child fatalities and serious injuries in Nevada arising due to low use or non-use of child safety seats. TRC will conduct self-reported behavioral surveys to identify how parents and caregivers perceive usage of safety seats for children. This data will help to improve Child Passenger Safety programs within different organizations in Nevada.	Nevada Office of Traffic Safety	Kachroo, Pushkin		32,000	9/30/2012
Logistics and Operations		UNLV		Interstate 15 South Design Build Comprehensive Evaluation Study Based on Quantitative and Qualitative Analysis - UTC	The main objective of this project is to study I-15 construction project carefully by collecting and analyzing traffic related data. The aim is to study the impacts of major events during the construction by collecting data before, during and after main such events. The study of traffic control plans during those events allows us to learn ways to prepare lessons learned, and build guidelines for future design-build projects, so that the impact of such projects is minimized on the travelers and residents.	Nevada Department of Transportation	Kachroo, Pushkin		161,516	10/31/2012
Logistics and Operations		UNLV		Nighttime Seat Belt Usage Surveys	The project goal is to estimate statewide nighttime seat belt use that would be beneficial to understanding the problem of nighttime driving risk. This survey will be conducted in accordance with the most recent guidelines published by NHTSA in 2010. Additionally, the findings would be beneficial to evaluate the effectiveness of the education and enforcement campaigns conducted by the Nevada Office of Traffic Safety.	Nevada Office of Traffic Safety	Kachroo, Pushkin		45,000	9/30/2012
Logistics and Operations		UNLV		Real-Time Traffic Data Laboratory for Research, Education and Training	1. Develop a Blue-tooth sensor system for travel time monitoring and measurement. 2. Develop a simple management tool using Geographic Information System (GIS) to help FAST to manage and query Intelligent Transportation System (ITS) devices. 3. Develop Archived Data User Service (ADUS) system to store, manage, query, upload and download transportation related data from RTC, FAST and the Nevada Department of Transportation and local agencies. 4. Review existing RTC safety analysis software and perform safety analysis on accidents and provide decision making functions. For example, identify high crash intersections to install flashing yellow arrow left-turn signals. 5. Develop a custom complaint system to log citizen complaints regarding FAST signal problems. 6. Implement arterial performance measurement system as contained in the Arterial Performance Monitoring and Measurement System in Las Vegas.	Regional Transportation Commission of So. Nevada	Kachroo, Pushkin		126,252	1/31/2014
Logistics and Operations		UNLV		Signal Timing and Coordination Strategies Under Varying Traffic Demands and Inclement Weather Conditions	The primary objectives of this research include: (1) evaluate signal timing and coordination strategies for signalized arterials under varying traffic flow and driving conditions (2) demonstrate the benefit and cost through case studies; and (3) develop recommendations on implementing promising strategies; (4) produce a research problem statement for determining yellow change and all-red clearance intervals.	Nevada Department of Transportation	Kachroo, Pushkin	University of Nevada, Reno	67,445	7/31/2012
Logistics and Operations		UNLV		University Transportation Center, UNLV - RTC Matching Funds	To conduct a multidisciplinary program of transportation research, education, and technology transfer through a University Transportation Center located at the University of Nevada, Las Vegas.	Regional Transportation Commission of Southern Nevada	Kachroo, Pushkin		170,000	6/30/2012

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Logistics and Operations		UNLV		User Interface and Data Processing Project for NDOT	The Performance Analysis Division of NDOT has many duties which require reporting of specific data in a number of different formats and reports. Data comes from multiple agencies and sources. For example, data for gallons of fuel consumed on our highways comes from Metropolitan Planning Organizations, several different sections within the Department of Motor Vehicles, and outside organizations like the International Fuel tax Agreement (FTA) clearinghouse. A single piece of data may be used in multiple different reports as primary data or as component data for various analyses. This effort is targeted at NDOT data used by the Performance Analysis Division with the hope of possible accessing/sharing data with other divisions, agencies and entities such as other states. This project proposes a common platform to publish the results of the analyzed data. This is a requirement that not only provides straight statistical answers to any of the queried variables but also predicts certain outcomes. This interactive platform should not just provide data as numbers but should present the results in simple graphical and/or tabular form that can be easily understood by the public. Thus, this common platform should not just distribute data, but should distribute intelligent, knowledge to the public and increase awareness among them.	Nevada Department of Transportation	Kachroo, Pushkin		62,953	6/30/2012
Logistics and Operations		UNLV		Vehicle-Infrastructure Integration Enabled Plug-In Hybrid Electric Vehicles for Energy Management	The PI's purpose is to develop an integrated and interdisciplinary approach that maximizes the benefits of plug-in hybrid vehicles (PHEVs) for use in building a sustainable transportation system.	Clemson University	Kachroo, Pushkin		69,135	7/31/2012
Logistics and Operations		UNLV		City Impact Center Master Planning	Generate a master plan for the City Impact Center site located on Sahara Avenue in Las Vegas, Nevada. The planning process involves the schematic design of buildings and facilities to support an innovative campus/community for social service delivery.	Nevada Community Foundation	Baird, David		20,000	9/30/2012
Logistics and Operations		UNLV		Community Center for Traffic Safety Education and Outreach	Create safer communities through partnership, public education, focused on reducing roadway injuries and fatalities. This project seeks to further reduce the crash rate, per VMT, in Clark County by an additional two-tenths each year.	Nevada Office of Traffic Safety	Breen, Erin		145,053	9/30/2012
Logistics and Operations		UNLV		Pedestrian Safety Awareness	Provide pedestrian safety education for pedestrians and motorists. Coordinate and support pedestrian safety awareness campaigns. Create educational materials for buses and bus shelters. Develop criteria to identify high crash locations and placement, design and implementation guidelines for pedestrian amenities. Implement pedestrian friendly countermeasures in alignment with FHWA and NCHRP proven/tested strategies.	Nevada Office of Traffic Safety	Breen, Erin		95,000	9/30/2012
Logistics and Operations		UNLV		STARS: Supporting Teens and Roadway Safety	Reduce teen fatalities and injuries on Nevada roadways. The objective of the program is to encourage safe driving habits and more practice on driving skills. To emphasize the importance of every teen life and make driving safely a number one priority to teens.	Nevada Office of Traffic Safety	Breen, Erin		72,992	9/30/2012
Logistics and Operations		UNLV		Performance Assessment Institute (NV)	The funds provided with this grant will be used to purchase and provide equipment, hardware and software in support of computational Performance Assessment (PA) and performance confirmation.	U.S. Department of Energy	Lombardo, Joseph		972,000	12/31/2012
Logistics and Operations		UNLV		UPWP 3403-11/14 - Before and After Transit Studies	The main objective of the proposed project include: a. This project is an addition task identified in the UPWP36403-11/14: Before and After Studies for RTC Transit. b. An accurate evaluation of current volume of traffic on the proposed BRT routes in the valley before and after implementation of the BRT system. Determine minimum, maximum and average vehicle counts by roadway segments, time and days. c. Classification of vehicles. d. Raw data delivery and CSV format data for modeling vehicle flows and facility planning. e. Comprehensive report of the work conducted.	Regional Transportation Commission of So. Nevada	Muthukumar, Venkatesan		17,000	6/30/2013
Logistics and Operations		UNLV		Calibration on CORISM Model Under Saturated Traffic Flow Conditions - UTC	The primary objective of this research is to develop a calibration framework for the CORISM traffic flow model.	Nevada Department of Transportation	Paz-Cruz, Alexander		115,135	9/30/2012
Logistics and Operations		UNLV	University of Nevada, Reno	Safety and Design Guidelines for Marked and Unmarked Pedestrian Crosswalks at Unsignalized and Midblock Crossing Locations	The primary research objectives are to (i) investigate whether there is a difference in safety performance at marked and unmarked pedestrian crosswalks in Nevada's urban areas; (ii) develop guidelines for installing marked crosswalks at unsignalized intersections and midblock crossings.	Nevada Department of Transportation	Paz-Cruz, Alexander		29,999	6/30/2012
Logistics and Operations		UNLV		Sustainable Planning for Large-Scale Transportation Systems: A Dynamic Simulation-Based Model for the Las Vegas Valley	This research seeks to develop an approach to simultaneously consider key transportation effects required for the planning of sustainable transportation systems in the Las Vegas Valley.	U.S. Department of Energy	Paz-Cruz, Alexander		46,600	8/30/2012
Logistics and Operations		UNLV		Upgrade and Calibration of a Dynamic Traffic Assignment Model for the Las Vegas Roadway Network and Development of a Tool to Generate CORSIM Models from Assignment	The goal of this project is to upgrade and recalibrate the existing Dynamic Traffic Assignment (DTA) model of the Las Vegas Roadway Network and to develop a software tool that can generate CORISM models from the input and output of the DTA model. Task 1 DTA Model Development and Calibration; Task 2 CORISM Data Extraction Software; Task 3 Provide DTA Training.	Nevada Department of Transportation	Paz-Cruz, Alexander		135,000	6/30/2013
Logistics and Operations		UNLV		ASHRAE Duct Sound Attenuation	The objective of the proposed research project is to: 1. Quantify the insertion loss of acoustically-lined ductwork over a wide range of duct cross-sectional sizes and duct length with selected duct sound attenuation materials; 2. Develop a methodology for predicting the insertion losses from (1) for any size and length of round and rectangular ducts; 3. Obtain more reliable insertion loss values for frequencies below 250Hz. 4. Investigate the effects of elbow geometrics and duct lining on elbow insertion loss of selected 90-deg 24in. X 24in. duct elbows; and 5. Investigate the effects of branch geometry and duct lining on the branch insertion loss of selected branch duct sizes and geometrics in a 24in X 24in duct.	Amer Soc of Heating, Refrig., & Aircond. Engrs., Inc.	Reynolds, Douglas		173,177	12/31/2012
Logistics and Operations		UNLV		I-Spider Corporate Account - Siemens Building Technologies, Inc.	The long-term purpose of the proposed research is to develop: Casual models that quantify the interrelations between K-12 classroom indoor environmental quality (IEQ) associated with classroom thermal comfort, fresh air ventilation, acoustics and lighting and student cognitive and learning performances, self-reported affect and attendance. Related cost-to-benefit models, energy analyses protocols, and improved classroom IEQ design guidelines based on these casual models that will be used by engineers, architects and school administrators to identify and implement cost effective and optimal solutions to address classroom IEQ problems that have been identified to exist in U.S. K-12 schools.	Various	Reynolds, Douglas		75,000	6/30/2012
Logistics and Operations		UNLV		An Investigation of an Innovative Maintenance Contracting Strategy: Performance-Based Maintenance Contract (PBMC) - Phase 1	The research we are proposing has two phases. First, our study will conduct literature review regarding the Performance-Based Maintenance Contract and other contracting strategies. It will be followed by an evaluation of how NDOT currently performs their maintenance activities, examining the advantages and disadvantages of existing maintenance contracts. The team will evaluate the performance of existing PBMC and other out-sources contracts and identify the maintenance activities that should be contracted out. Based on the success of first phase, the second phase of the research will be conducted. The second phase of the research will determine the performance-based specifications and the performance assessment methods for the maintenance activities proposed to be contracted as PBMCs.	NV Department of Transportation	Shrestha, Pramen		125,433	1/15/2014
Logistics and Operations		UNLV		Preparing Guidelines for Speed Reduction in Towns Along Rural Highways	Initially, a one-phase research program with an 18-month duration is proposed herein to tackle the questions related to creating consistency of speed limit in towns along Nevada rural highways. During the course of the study, a standard guideline for speed limits in towns along rural highways in Nevada will be prepared.	NV Department of Transportation	Shrestha, Pramen		106,261	12/31/2012

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Logistics and Operations		UNLV	University of Nevada, Reno	Safety and Design Guidelines for Marked and Unmarked Pedestrian Crosswalks at Unsignalized and Midblock Crossing Locations	The primary research objectives are to (i) investigate whether there is a difference in safety performance at marked and unmarked pedestrian crosswalks in Nevada's urban areas; (ii) develop guidelines for installing marked crosswalks at unsignalized intersections and midblock crossings.	Nevada Department of Transportation	Teng, Hualiang		30,000	6/30/2012
Logistics and Operations		UNLV		University Transportation Center	To conduct a multidisciplinary program of transportation research, education, and technology transfer through a University Transportation Center located at the University of Nevada, Las Vegas.	U.S. Department of Transportation	Hayes, Donald		1,634,743	6/30/2012
Agriculture/ Financial Enterprises		UNLV		New Treatments for American Foulbrood	Honey bee pollination is crucial to ensuring sustainable food supplies worldwide, yet honey bees abundance is decreasing worldwide due to a variety of pests and diseases. American foulbrood is a larval honey bee disease caused by the spore forming bacteria <i>Paenibacillus</i> larvae. In response to program area priority one to understand the environmental and biological processes that affect the abundance and spread of agriculturally important insects, we propose to use several approaches alone and in combination to produce potential treatments for the disease by taking advantage of the microbe's biology and that of the bees themselves to attach the microbe and prophylactically protect the larvae. We will identify compounds that inhibit germination and identify hemolymph antimicrobial peptides differentially expressed in older larvae and adult bees that are immune to the disease to inhibit active microbial cells and protect susceptible larvae. American foulbrood is typically highly regulated requiring the use of confirmatory diagnostics and often resulting in forced incineration of the bees and equipment making it a costly disease. The research proposed combines several routes of control to produce treatments that can protect bees as well as remove the infectious spores from the hive without the risk of resistance posed by current antibiotic treatments or contamination of the hive and its products.	U.S. Department of Agriculture	Elekovich, Michelle		333,276	1/31/2014
							TOTAL		106,311,304	

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Tourism, Gaming and Entertainment	Agriculture	UNR		BURNING OF CHEATGRASS	Explore the prospects for "burning out" cheat grass with repeated fires designed to reduce total and available soil nitrogen and, consequently, cheat grass growth and reproduction.	Department of Agriculture, Forest Service	JOHNSON,DALE W.		321,955	8/22/2012
Tourism, Gaming and Entertainment		UNR	UC-Davis	IMPACTS ASIAN CLAMS/LAKE TAHOE	Determine the environmental factor contributing to the establishment of Asian clams in Lake Tahoe, their spread, growth, and potential impacts to lake clarity.	Department of Agriculture, Forest Service	CHANDRA,SUDEEP	S SOILAND	321,658	8/31/2012
Tourism, Gaming and Entertainment		UNR		NEARSHORE ECOLOGY & AESTHETICS	Provide management agencies with science-based recommendations for the development of long-term monitoring program for Lake Tahoe's near shore environment.	Department of Agriculture, Forest Service	CHANDRA,SUDEEP		43,784	9/30/2012
Tourism, Gaming and Entertainment		UNR		ASIAN CLAM DIST & RECOLONIZA	Advance the knowledge of the invasive species (Asian clam) given its life history strategies in an oligotrophic cold-water lake, early in its invasion stage, and to apply this to ongoing management and control efforts in Lake Tahoe.	Department of Agriculture, Forest Service/University of California, Davis	CHANDRA,SUDEEP		96,554	9/30/2012
Tourism, Gaming and Entertainment		UNR		GBCESU:LK MEAD BENTHIC QUAGGA	Continued determination of the inter- and intra-annual population dynamics of soft sediments dwelling D. bugensis in Boulder Basin, Las Vegas Bay and Overton Arm, Lake Mead.	Department of the Interior, National Park Service/Nevada System of Higher Education, Desert Research Institute	CHANDRA,SUDEEP		67,735	9/29/2012
Tourism, Gaming and Entertainment		UNR		TAHOE WARMWATER FISH ECOLOGY	Conduct and produce a literature review on fish control/removal projects and reported ecosystem or community responses, determine the effectiveness and feasibility of mechanical removal for management of non-native warm water fishes in Lake Tahoe and examine ecological response of native and non-native fishes to intensive harvesting of nonnative species including a) changes in abundance and population demographic structure of non-native fishes, and b) if native fish recovery occurs at infested sites.	Department of the Interior/Tahoe Regulatory Planning Agency	CHANDRA,SUDEEP		408,486	4/30/2013
Tourism, Gaming and Entertainment		UNR		TAHOE KEYS INVERT	Evaluate changes to the benthic invertebrate community after the testing of three methods of non-chemical chemical treatments for management of invasive weeds in the Tahoe Keys.	Department of the Interior/Tahoe Regulatory Planning Agency	CHANDRA,SUDEEP		34,624	5/1/2012
Tourism, Gaming and Entertainment		UNR		SUMMIT LAKE	Investigate the need for management of minnows in the Summit Lake aquatic ecosystem, define the trophic status and bioenergetics of the Summit Lake aquatic ecosystem and educate tribal members as well as broader stakeholders involved with LCT restoration in the Lahontan basin.	Department of the Interior/Summit Lake Paiute Tribe	CHANDRA,SUDEEP		146,130	12/31/2013
Tourism, Gaming and Entertainment		UNR		GBCESU:CRATER LAKE CLARITY	Assess the impact of warming thermal structure on the water clarity and productivity of Crater Lake (Oregon, USA) using structural equation modeling.	Department of the Interior, National Park Service	CHANDRA,SUDEEP		10,018	3/1/2013
Tourism, Gaming and Entertainment		UNR		QUAGGA MUSSEL IN LAKE TAHOE	Assist policy decisions regarding the prevention of invasive species: testing the survival and growth of quagga mussel in Lake Tahoe.	Department of Agriculture, Forest Service	CHANDRA,SUDEEP		314,182	12/31/2014
Tourism, Gaming and Entertainment	Agriculture	UNR		CONTRACEPTIVES/FERAL HORSES	The project will address the following objectives: 1. Healthy Rangelands for multiple uses. 2. Improved campus-based range management education programs. 3. Healthy economies at the ranch, community, and county level. 4. Public land decision-making models that value and support public inputs.	Department of Agriculture, National Institute of Food & Agriculture	THAIN,DAVID S.		27,140	6/30/2012
Tourism, Gaming and Entertainment	Agriculture	UNR		DESERT BIGHORN SHEEP HEALTH	Understand factors influencing health of bighorn sheep populations. The two main objectives are: 1) Discover factors influencing health and persistence of bighorn sheep populations and 2) Identify the impact of domestic livestock on forage quality and availability in regions with desert bighorn sheep populations.	Department of Agriculture, National Institute of Food & Agriculture	THAIN,DAVID S.		64,094	6/30/2012
Tourism, Gaming and Entertainment		UNR		MODELS/MLRA 25 UPLAND SITES	Conceptual state-and-transition models for the upland and riparian ecological sites within the Nevada component of the Major Land Resource Areas 23, 24 and 25 will be developed for inclusion by the Natural Resource Conservation Service (NRCS) in their ecological site descriptions (ESDs). Development of these conceptual models will improve the utility of ESDs and will immediately be useful to field office operations, technical service providers, state and federal land management agencies, and other users.	Department of Agriculture, Natural Resources Conservation Service	STRINGHAM,TAMZEN		79,986	6/30/2015
Tourism, Gaming and Entertainment		UNR		TREE HEALTH/LAKE TAHOE BASIN	Quantify the incidence and severity of tree diseases, pathogens, and other biotic and abiotic damaging agents on the Nevada State Park and US Forest Service land within Nevada Tahoe; quantify changes in incidence and severity of tree diseases, pathogens, and other damaging agents in areas that have been treated by Nevada Department of Forestry and the US Forest Service; and to use remote sensing technology to quantify tree crown damage to different fuel treatments.	State of Nevada, State Department of Conservation & Natural Resources, Division of State Lands	NOWAK,ROBERT S.		126,350	6/30/2012
Tourism, Gaming and Entertainment	Agriculture	UNR		SYNERGISTIC MONITORING/VEG YR4	Monitor and learn from vegetation management treatments, this project will hire an ecologist and possibly assistants to inventory and copy land treatment data available from agency offices from past land treatment projects.	State of Nevada, Department of Wildlife	SWANSON,SHERMAN R.		25,000	6/30/2012
Tourism, Gaming and Entertainment		UNR		BIGHORN SHEEP DISEASE	Test a number of predictions that emerge from conservation and evolutionary genetics studies of other bighorn sheep populations to establish a comparable framework for Nevada's populations.	Boone & Crockett Club	MATOCQ,MARJORIE		25,902	6/30/2012
Tourism, Gaming and Entertainment		UNR		ASIAN CLAMS RISK ASSESSMENT	Evaluate the risk of spread of Asian clams in Lake Tahoe and their potential impacts to Lake clarity.	State of Nevada, State Department of Conservation & Natural Resources, Division of State Lands	CHANDRA,SUDEEP		101,720	9/30/2012
Tourism, Gaming and Entertainment		UNR		MARLETTE LAKE NDOW 2010	Conduct a limnological assessment of Marlette Lake (NV), create a short monitoring plan for detecting invasive species and summarize information that will inform NDOW on the creation of a Fisheries Mgt. Plan.	State of Nevada, Department of Wildlife	CHANDRA,SUDEEP		75,934	12/31/2012
Tourism, Gaming and Entertainment		UNR		MARLA BAY COLDWATER CLAM REMOV	Sample removal population and recolonization of coldwater clams in Marla Bay prior to and after the deployment of bottom barriers to determine control techniques for clam populations.	University of California, Davis	CHANDRA,SUDEEP		15,147	3/31/2012
Tourism, Gaming and Entertainment		UNR		LAKE TAHOE LARGE MAT CLAM CTRL	Sample Lake Tahoe of invasive clams prior to and after the deployment of bottom mat barriers to determine next steps for controlling clam population.	University of California, Davis	CHANDRA,SUDEEP		11,458	3/31/2012
Tourism, Gaming and Entertainment	Business IT Ecosystems	UNR		CO-EVOLVING TACTICS	A revolutionary genetic algorithm based on an artificial intelligence learning system using newly developed technology and self-learning from subject matter is to be developed, tested, and evaluated for decision making simulations.	Department of Defense, Department of the Navy	MAHON,JENNIFER		24,752	3/31/2012
Tourism, Gaming and Entertainment	Health and Medical Services	UNR		AIR FILTRATION/RESPIRATORY DIS	Investigate the effects of air filters, commonly used in homes and business' in Nevada in protecting against the harmful effects of exposure to secondhand cigarette smoke.	Flight Attendant Medical Research Institute	PRITSOS,CHRIS		324,360	6/30/2012
Tourism, Gaming and Entertainment		UNR		GBCESU: DEVILS HOLE HABITAT	Advance the scientific understanding of public resources and their impact at Devil's Hole, Nevada.	Department of the Interior, National Park Service	TYLER,SCOTT W.		88,030	4/30/2013
Clean Energy	Agriculture	UNR		NVREC BIOMASS & BIOFUEL PRODUC	Develop the agronomic expertise to grow these plants in both Northern and Southern Nevada and to develop the infrastructure to process these and other energy crop species for liquid fuel production and direct thermal conversion to electricity.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	SHINTANI,DAVID K.		76,248	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNR		NANOSTRUCTURED PROTON EXCHANGE	Synthesize and characterize a composite polyimide (PI) matrix proton exchange membrane with heteropolyacid proton conductors capable of operation at elevated temperatures and low humidities common to Nevada.	Department of Energy/Alliance Sustainable Energy	FUCHS,ALAN		330,436	9/12/2012

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Clean Energy	Mining, Materials, and Manufacturing	UNR	UNIVERSITY OF UTAH; UNIVERSITY OF IDAHO	CNTR FOR MATERIALS RELIABILITY	Research focuses on materials performance during spent fuel reprocessing by molten salt electrolysis and consists of four tasks: 1. electrochemical reprocessing of spent fuels, 2. first principle modeling of nuclear fuels, 3. immobilization of radionuclides by titanate nanotubes, and 4. nanotube oxide heterostructures for energy conversion.	Department of Energy	CHIDAMBARAM,DEVICHARAN	VIKAS TOMAR	2,681,400	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNR	CSIRO; TDA RESEARCH INC	AMORPHOUS ALLOY MEMBRANES	Preparation techniques of low cost membranes for hydrogen separation used in energy generation.	Department of Energy	CHANDRA,DHANESH	TED B FLANAGAN	1,163,596	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNR		ADVANCED ENERGY STORAGE	Develop new strategies and battery materials with three to four times more energy than the current capacity of known thermal energy storage materials.	Intel Corporation	CHANDRA,DHANESH	KRISHNAN RAJA	420,000	2/28/2013
Clean Energy	Mining, Materials, and Manufacturing	UNR		PROTON EXCHANGE MEMBRANES	Synthesize, characterize and evaluate novel proton exchange membranes for fuel cells using UNR's recently synthesized supramolecular proton exchange membranes.	Department of Defense, Department of the Army	FUCHS,ALAN		400,000	9/15/2012
Clean Energy		UNR	DRI	HYPER SPECTRAL IMAGE DATA	Radiation signatures related to the nuclear fuel cycle are to be investigated and identified, resulting in development of enabling technologies for nonproliferation remote sensing.	Department of Energy	CALVIN,WENDY M.		810,000	9/14/2012
Clean Energy		UNR		ARRA: EGS EXPLORATION	A non-invasive exploration methodology integrating geology, geophysics, and geochemistry for identifying potential drilling targets for Engineered Geothermal Systems is to be developed and tested.	Department of Energy/Altarock Energy Incorporated	KARLIN,ROBERT		78,141	9/1/2012
Clean Energy		UNR	LAWRENCE BERKELEY NATIONAL LABORATORIES	ARRA: GEOTHERMAL MODEL FOR EGS	Develop a complex model of Engineered Geothermal Systems to more accurately predict how new fluid technologies would perform in a reservoir. Application of the model may discover new solutions to heat extraction from an enhanced fracture system of Engineered Geothermal Systems.	Department of Energy	DANKO,GEORGE		1,278,070	1/31/2013
Clean Energy		UNR		ARRA: NATL GEOTHERMAL DATA SYS	Work plan 1. Digitize records, including electrical logs, from all geothermal explorations and production wells in Nevada. 2. Log, photograph, and selectively sample for archiving available core from geothermal exploration and production wells in Nevada. 3. Digitize annual production statistics from power plants in Nevada 4. Develop metadata on any new electronic records to NGDS formats. 5. Convert existing metadata to NGDS standards. 6. Add to NBMG files with additional paper records, digitize these, and add them to the NBMG database and GBCGE geothermal database, which is feeding into the NGDS under separate funding. 7. Maintain the Western Region server hub.	Department of Energy/Arizona Geological Survey	PRICE,JONATHAN G.		371,688	5/23/2013
Clean Energy		UNR		ARRA: NATL GEOTHERMAL DATABASE	The Center will update and expand its geothermal collection, to ensure its continued usefulness. Center is advancing on two fronts 1) a consortium industry partners, and 2) participation in the DOE National Geothermal Database proposal, co-led by Boise State University.	Department of Energy/Boise State University	SHEVENELL,LISA A.		308,978	5/31/2014
Clean Energy		UNR	GFZ	SAN EMIDIO GEOTHERMAL FIELD	A modeling study to integrate all available geo-data into one coherent 3D model allowing for a complex analysis and discrimination of dilatational fault segments.	Department of Energy/United States Geothermal Incorporated	FAULDS,JAMES E.		108,254	4/30/2012
Clean Energy		UNR		ARRA: NATL GEOTHERMAL TASK 8	Enhance the accuracy and availability of Nevada's geothermal database. All data, including electrical logs, from all geothermal explorations and production wells in Nevada will be digitized. Logs, photographs, and selected core samples from geothermal exploration and production wells in Nevada will be archived. Annual production statistics from power plants in Nevada will be assembled and digitized. Metadata on any new and existing electronic records will be converted to NGDS standards.	Department of Energy/Arizona Geological Survey	PRICE,JONATHAN G.		254,202	5/23/2013
Clean Energy		UNR		HIDDEN GEOTHERMAL SYSTEMS	Utilize the sciences of magnetotellurics, soil gas chemistry, and structural analysis to find previously undiscovered geothermal systems.	Department of Energy/University of Utah	FAULDS,JAMES E.		77,215	9/30/2012
Clean Energy		UNR		ARRA: EVAL OF PLPT GEOTHERMAL	Integrate state-of-the-art exploration technologies with geologic framework and reservoir modeling to determine the efficacy of future geothermal production at the Astor Pass Site within the Pyramid Lake Paiute Reservation.	Department of Energy/Pyramid Lake Paiute Tribe	LOUIE,JOHN N.		903,619	12/31/2012
Clean Energy		UNR		ARRA: EGS EXPLORATION	Develop and test a unique non-invasive exploration methodology by integrating geology, geophysics, and geochemistry to identify potential drilling targets for Engineered Geothermal Systems.	Department of Energy/Altarock Energy Incorporated	TIBULEAC,ILEANA M.		146,708	9/1/2012
Clean Energy		UNR		GEOTHERMAL RESOURCE	The Great Basin Center for Geothermal Energy will (1) produce a web-based, stakeholder geothermal information system for Nevada geothermal data relevant to assessing and developing geothermal resources, and (2) manage an applied research program to find relevant, peer reviewed geothermal research addressing the goal of increasing applications of geothermal energy in the Great Basin. Workshops will be conducted to inform industry of the availability of this knowledge resource base.	Department of Energy	CALVIN,WENDY M., LOUIE, JOHN N., SHEVENELL, LISA A., FAULDS, JAMES E., LECHLER, PAUL J., BLEWITT, GEOFFREY, SHEVENELL, LISA A., AREHART, GREG B., COOLBAUGH, MARK F., BELL, JOHN W., TARANIK, JAMES V.	ANNE ELIZABETH EGGER	5,794,147	12/31/2012
Clean Energy		UNR		RENEWABLE ENERGY CNTR-MGMT	Re-enforce the application of "renewable energy related technologies focusing on geothermal" specific to northern Nevada.	Department of Energy/Midwest Research Institute, National Renewable Energy Laboratory	CALVIN,WENDY M., KIM, KWANG J.		750,000	5/15/2012
Clean Energy		UNR		TASK C: GEOTHERMAL-LIFE CYCLE	Develop multiple projects related to solar and geothermal energy. A low cost, high capacity, visible light efficient, flexible solar cell will be developed and tested. Hydrogen generation by natural gas decomposition using molten salt solar thermal storage will be investigated. Existing wastewater infrastructures will be exploited to develop new sources of renewable fuels. A chemically promoted mechanical dewatering of wastewater sludge will also be developed. Surveys of shallow temperature and soil gas will be conducted. surveys. An analysis of the life cycle for geothermal energy exploration and products will be performed. Effective outreach training and workforce development activities will be conducted.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	CALVIN,WENDY M., MISRA, MANORANJAN, SUBRAMANIAN, VAIDYANANTHAN		546,224	9/30/2012
Clean Energy		UNR		ARRA: STRUCT CONTROLS/EGS&CONV	Successful exploration strategies in extended terrenes will be developed by characterizing structural controls of engineered geothermal systems of candidate and conventional geothermal reservoirs in the Great Basin.	Department of Energy	FAULDS,JAMES E.		935,505	1/31/2013

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Clean Energy		UNR		EXPANDING GEOTHERMAL USE	The Great Basin Center for Geothermal Energy (GBCGE) will promote research and utilization of geothermal resources in the Great Basin based on a library of peer reviewed research. The GBCGE will also hold stakeholder workshops and training and outreach activities, assist in the University of Nevada, Reno renewable energy curriculum, and maintain data and other information on a public web site.	Department of Energy	CALVIN,WENDY M.		1,000,000	8/31/2012
Clean Energy		UNR		HYDROCARBON THERMOCHEMISTRY...	Develop ion chemistry techniques for enhancing the determination of thermochemical values for neutral hydrocarbon radicals significantly influencing combustion kinetics.	Department of Energy	ERVIN,KENT M.		880,951	12/31/2012
Clean Energy		UNR		ELECTRON INTERACTIONS	Investigations of highly complex multi-electron interactions governing inelastic processes involving positive ions in plasma environments, such as those occurring in stellar cores and atmospheres, x-ray lasers, thermonuclear fusion reactors and materials processing discharges.	Department of Energy	PHANEUF,RONALD A.		1,552,000	1/31/2013
Clean Energy		UNR		INERTIAL CONFINEMENT FUSION	Model and analyze the aluminum line absorption spectra recorded in shock heating and compression experiments of aluminum thin layers embedded in plastic slab targets including both the effects of Stark broadening and dense plasma shift in absorption line shapes.	Department of Energy/University of Rochester	MANCINI,ROBERTO C.		374,385	9/30/2012
Clean Energy		UNR		PLASMA-WALL INTERACTION	Characterize the basics of the interaction of dense magnetized plasma with a metal wall, under conditions relevant to fusion energy science.	Department of Energy	BAUER,BRUNO S.		1,331,392	9/30/2012
Clean Energy		UNR	TEXAS A&M-TEXAS ENGINEERING EXPERIMENT STATION	SIMULATION/NUCLEAR ENGINEERING	Develop a novel mathematical methodology to address the lack of consistency of the nonlinear simulation and the low accuracy of the spatio-temporal discretization in the modeling of nuclear systems.	Department of Energy/Idaho National Laboratory, Battelle Energy Alliance	SOLIN,PAVEL		587,382	9/30/2012
Clean Energy		UNR	UofU	PHOTO-ELECTROCHEMICAL GENER...	Utilization of a novel hybrid titania nanotube arrays to generate hydrogen from water using sunlight.	Department of Energy	MISRA,MANORANJAN		2,720,000	9/30/2012
Clean Energy		UNR	UNIVERSITY OF UTAH	NEXT BIODIESEL FROM FOOD WASTE	Production of high quality biodiesel from alternative livestock feeds in conjunction with a heterogeneous catalytic process and also develop a process to utilize the glycerin by-product in as economically attractive energy source.	Department of Energy	MISRA,MANORANJAN		1,000,000	8/31/2012
Clean Energy		UNR		NVREC SENSITIZED SOLAR CELLS	Engineering techniques to address unique development of solar cells.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	SUBRAMANIAN,VAIDYANATHA N, KING, BENJAMIN T., ALPUCHE AVILES, MARIO A., GREINER, MILES, CORONELLA, CHARLES, KIM, KWANG J.		457,013	9/30/2012
Clean Energy		UNR		BANDGAP/SOLAR ENERGY CONVERSION	Develop models for driven synthesis of photocatalysis for visible light water splitting reactions as applied to solar energy conversion.	National Science Foundation	SUBRAMANIAN,VAIDYANATHA N		256,785	7/31/2014
Clean Energy		UNR		HYDROTHERMAL COND/CORN STOVER	UNR will design a reactor for ZERE Energy and Biofuels, Inc., and conduct a biomass inventory in the state of Nevada.	Department of Energy/Idaho National Laboratory, Battelle Energy Alliance	CORONELLA,CHARLES		50,000	11/30/2012
Clean Energy		UNR		ROOFTOP WIND PANEL SYSTEMS	Conduct an analytical and experimental investigation of novel rooftop wind panel systems with horizontal Savonius and Darrieus rotors, and power electronic on-grid and off-grid interfaces.	National Science Foundation	TRZYNADLOWSKI,ANDRZEJ M.		216,375	8/31/2012
Clean Energy		UNR		ROBOTIC CATHETERIZATION	A robotic catheter using Ionic Polymer-Metal Composite for renewable energy applications is being developed and evaluated.	National Science Foundation	KIM,KWANG J.		204,103	5/31/2013
Clean Energy		UNR		NEVADASAT	Collaborating eight institutions will develop courses to support new curriculum in sustainability and energy systems.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	WANG,ERIC L.		35,000	6/30/2012
Clean Energy		UNR		MICROFLUIDICS FOR MICROALGAE	A microfluidic based sensor for large-scale microalgae culturing for use in bio-diesel fuel production will be developed.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	GEIGER,EMIL J.		19,994	5/4/2012
Clean Energy		UNR		NSF GK-12 E-FELLOWSHIP PROGRAM	Prepare graduate research fellows (E-Fellows) to become future STEM leaders in energy technologies and energy awareness through partnership with local middle and high schools.	National Science Foundation	LEANG,KAM K.		1,212,182	8/31/2014
Clean Energy		UNR		INTEGRATED SUSTAINABILITY INIT	Reduction of the environmental impact of the University of Nevada, Reno (UNR) campus by transformation of infrastructure and institutional practices. and development of collaborative programs to reduce consumption and waste.	Department of Energy	COLLOPY,MICHAEL W.		951,500	9/30/2012
Clean Energy		UNR		TASK B: BIOFUELS	Design a low cost, high capacity, visible light efficient, flexible solar cell and additionally research Hydrogen Generation by Natural Gas Decomposition Using Molten Salt Solar Thermal Storage. Exploit existing wastewater infrastructure to develop new sources of renewable fuels and develop chemically promoted mechanical dewatering of wastewater sludge. Create the Outreach Training and Workforce Development.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	CUSHMAN,JOHN C.		204,833	9/30/2012
Clean Energy		UNR		NVREC MICROALGAE BIOFUEL PROD	Test municipal wastewater for its suitability for use in growing microalgae as a biofuel feedback.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	CUSHMAN,JOHN C.		74,982	9/30/2012
Clean Energy		UNR		NVREC MICROALGAE BIOFUEL FEEDS	Test municipal wastewater for its suitability for use in growing microalgae as a biofuel feedback.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	GUSTIN,MAE S.		53,093	9/30/2012
Clean Energy		UNR		CARBON, CLIMATE AND FUEL	Compare and evaluate long-term impacts of fire suppression, prescribed fire, and fuel treatments on the long-term potential for Lake Tahoe forests to sequester carbon or otherwise contribute to reducing greenhouse gas emissions in a global change context.	Department of Agriculture, Forest Service/Portland State University	WEISBERG,PETER J.		66,068	7/31/2012
Clean Energy		UNR		PGE GEOTHERMAL LEASE AREAS	Identify and conduct structural analyses of faults in the East Fork, Hood Riverlease block to provide a relatively quick and inexpensive approach to determine whether (or where) further evaluation of these faults is warranted.	Optim Incorporated	CASHMAN,PATRICIA H.		47,287	4/30/2012
Clean Energy		UNR		BRADY'S GEOTHERMAL STUDY	Enhance the characterization of the Brady Geothermal Field by conducting a comprehensive synthesis of geophysical and geological data sets along with detailed structural and 3D modeling studies.	Ormat Technologies Inc.	FAULDS,JAMES E.		52,053	12/31/2012
Clean Energy		UNR		GIS DATA INTEGRATION & FIELD	Computer-based algorithms will be designed to enhance and process the acquired imagery to better emphasize geothermal field anomalies.	Imageair Incorporated	COOLBAUGH,MARK F.		43,064	12/31/2012
Clean Energy		UNR		CONVERSION OF WASTE FEEDSTOCKS	Develop and validate a reliable mathematical model of a biomass reactor.	Pacific Renewable Fuels & Chemicals	CORONELLA,CHARLES		5,000	3/31/2012

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Health and Medical Services		UNR		EPSCOR-TASK 6 CYB CLIMATE CHG	A Nevada statewide interdisciplinary program will be developed to stimulate transformative research, education, and outreach on the effects of regional climate change on ecosystem resources and use of this knowledge by policy makers.	National Science Foundation/Nevada System of Higher Education, Chancellor's Office	DASCALU, SERGIU-MIHAI, MALES, SAMUEL, SAIIDI, MEHDI, RYAN, KERI L., KAUNECKIS, DEREK K., EWING-TAYLOR, JACQUE, MENSING, SCOTT A., BASSETT, SCOTT D., DIONI, FRANCO, DAHIR, VERONICA G., COLLOPY, MICHAEL W.		3,125,823	8/31/2012
Health and Medical Services		UNR		ENDEMIC RELAPSING FEVER	Discover the mechanisms by which relapsing fever spirochetes are maintained in nature, how diversification and speciation in pathogens contribute to the emergence of novel strains, and how both patterns relate to infection risk for humans.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	TEGLAS, MIKE B.		70,500	1/31/2014
Health and Medical Services		UNR		TICK-BORNE DISEASE IN PAKISTAN	Establish a regional surveillance program for ticks and tick-borne diseases for increasing our knowledge of risks for tick-borne disease persistence and spread as influenced by key ecological factors. Data collection efforts and analysis will train Pakistani scientists and students capacity building among the collaborating institutions.	Department of State, Bureau of Educational & Cultural Affairs/The National Academies	TEGLAS, MIKE B.		156,415	11/14/2012
Health and Medical Services	Business IT Ecosystems	UNR		COMMUNITY HEALTH ASSESSMENT	Create a Web platform that displays health information, identifies priority health needs and provide data infrastructure and capacity for assessing future community health needs.	St. Mary's Regional Medical Center	YANG, WEI		93,978	7/31/2012
Health and Medical Services	Mining, Materials, and Manufacturing	UNR		SAFETY, HEALTH & VENTILATION	Research and educational resource development projects to reduce the cost of ventilation and air cooling of underground mines while improving underground occupational, environmental and health standards. Also, a new mine ventilation and contaminant transport model will be applied and evaluated, and technical professionals will be trained on its use.	Department of Health & Human Services, Centers for Disease Control & Prevention	DANKO, GEORGE	CHRISTOPHER FULLMER	750,000	8/31/2012
Health and Medical Services		UNR		ADAPTATION AND VISUAL CODING	Investigation of the functional consequences of sensitivity changes and adaptation to visual stimuli.	Department of Health & Human Services, National Institutes of Health, National Eye Institute	WEBSTER, MICHAEL A.		1,222,684	3/31/2012
Health and Medical Services		UNR		MODULAR TRAINING IN ESCP	Enhance evidence-based practices on public health by identifying a efficient and effective dissemination strategies to increase the awareness of and access to the best available treatments by health care professionals. Results should reduce the time gap between health care professionals' knowledge of effective treatments and the delivery of those treatments in routine care.	Department of Health & Human Services, National Institutes of Health, National Institute of Mental Health	HAYES, STEVEN C.		29,536	9/25/2012
Health and Medical Services		UNR		GENDER DIFFERENCES IN HEALTH	Investigation of gender differences in the stress process leading to mental and physical health outcomes.	National Science Foundation	ELLIOTT, MARTA		105,821	8/31/2012
Health and Medical Services		UNR		STRESS PROCESS ALCOHOL MISUSE	Characterize the epidemiology of alcohol misuse.	Department of Health & Human Services, National Institutes of Health, National Institute on Alcohol Abuse & Alcoholism	ELLIOTT, MARTA		138,265	3/31/2013
Health and Medical Services		UNR		PTR-YC EARLY INTERVENTION	Conduct efficacy trials to determine whether a manualized intervention model is effective in reducing the serious challenging behaviors of children 3-5 years of age.	Department of Education/Office of Special Education & Rehabilitative Services	ROCK, STEPHEN L.		648,865	8/1/2012
Health and Medical Services		UNR		EXCESS FLUORIDE/DRINKING WATER	Evaluation of the effectiveness of small-scale drinking water filters in West Africa for removing harmful microbes. Additional efforts will develop a system and community-based approach for controlling excess fluoride in drinking water in Northern Ghana.	Environmental Protection Agency, Office of Research & Development	BERRY, CATHERINE A.		17,351	8/31/2013
Health and Medical Services		UNR		NOVEL DSCAM LIGANDS (NSF)	Test the hypothesis that the Down Syndrome cell adhesion molecule (Dscam) receptor can respond to three different cues to guide axon growth by genetic analysis in the fruit fly (<i>Drosophila</i>) embryo.	National Science Foundation	KIDD, THOMAS		282,565	1/31/2015
Health and Medical Services		UNR		FLY RET GENE ANALYSIS	Develop a <i>Drosophila</i> model of Hirschsprung's Disease (HSCR) for elucidating the basic mechanisms of action of Ret and interacting genes related to the formation of the enteric (gut) nervous system.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke	KIDD, THOMAS		414,357	4/30/2014
Health and Medical Services		UNR		COMMISSURELESS HOMOLOGUES	Genetic variants of Robo receptors have been implicated in such diverse conditions as scoliosis and developmental dyslexia in humans, this study will test candidate genes from other species by using well-defined assays in fruit flies to identify "commis sureless" or comm mutants from other species to studying control of receptor localization. Results may identify a novel locus for scoliosis and other disorders in which nerve wiring patterns are altered.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke	KIDD, THOMAS		141,000	5/31/2013
Health and Medical Services		UNR		TRANSPORT/BEEF CATTLE HORMONES	The surface and subsurface transport of steroid hormones used in animal agriculture will be examined, while assessing the risk these contaminants pose to aquatic ecosystems.	Department of Agriculture, National Institute of Food & Agriculture/University of California, Davis	KOLODZIEJ, EDWARD P.		141,041	12/14/2012
Health and Medical Services		UNR		DEPLOYABLE BIOSENSORS	Two biosensor platforms for detecting the presence of anthrax microbes will be developed and tested.	Department of Defense, Department of the Air Force	PUBLICOVER, NELSON G.		1,579,599	6/30/2013
Health and Medical Services		UNR		PREPARE HS STUDENTS BIOMED ENG	This outreach project will prepare high school students for college biomedical engineering through orientation and hands-on experience.	Department of Education/State of Nevada, Nevada System of Higher Education, Chancellor's Office	ZHU, XIAOSHAN		45,000	9/29/2012
Health and Medical Services		UNR		MAGNETORHEOLOGIC FLUIDS	The efficacy of magneto-rheological fluid (MRF) treatment for the promotion of an antitumor response alone or in combination with immunotherapy will be tested. The use of iron particles coated with anti-CD40 (ferro-immunoconjugates) for augmentation of immune activation will also be studied.	Department of Defense, United States Army Medical Research Acquisition	EVRENSEL, CAHIT A.		171,680	6/14/2012
Health and Medical Services		UNR		HCC-SMALL: TEXTSL: INTERFACE..	Expansion of TextSL, a prototype text client to aid blind users in accessing web-based social interaction opportunities offered by virtual worlds such as Second Life. Results could eventually make for a more interactive and informative world wide web for the blind.	National Science Foundation	FOLMER, EELKE	TERRI HEDGPETH	499,332	6/30/2013
Health and Medical Services		UNR		EQUIP/CNTR MOLECULAR MED	Equipment Grant for UNR Center for Molecular Medicine. Acquisition of: BD Biosciences LSR II flow cytometer, Prism 3000XP gamma camera system, Electronic medical records/practice management system, Caliper Life Sciences-IVIS Lumina, Leica fluorescent inverted microscope w/ camera, Perkin Elmer Victor multi-label counter/plate reader, and patient exam room equipment.	Department of Health & Human Services, Health Resources & Services Administration	LUPAN, DAVID M.		1,422,094	8/31/2012

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Health and Medical Services		UNR		EQUIP/CNTR MOLECULAR MED	Equipment grant for center for Molecular Medicine.	Department of Health & Human Services, Health Resources & Services Administration	LUPAN,DAVID M.		742,500	12/31/2013
Health and Medical Services		UNR		CT:2CARE-01.00	Medical trial of the coenzyme Q10 in Huntington's disease.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke/Massachusetts General Hospital	FARBMAN,ERIC S.		2,500	11/30/2012
Health and Medical Services		UNR		SMOOTH AND NONMUSCLE MYOSINS	Develop an in vitro, regulated smooth muscle system for studying the mechanisms incorporating physiological ratios of smooth muscle myosin (SMM) to myosin light chain kinase (MLCK) on a nitrocellulose-coated coverslip.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases	CREMO,CHRISTINE R.		1,613,960	7/31/2012
Health and Medical Services		UNR		MECHANISMS IN SMOOTH MUSCLE	Characterize how the relationship between force generation, force transmission, and force sensing by myosin molecules in smooth muscle contribute to the mechanics of smooth muscle contraction in normal and disease states.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	BAKER,JONATHAN		1,342,959	6/30/2012
Health and Medical Services		UNR		CARDIAC MYOCYTE CONTRACTILITY	The effects of altered actin-myosin mechanics on i) cardiac myocyte mechanics; ii) mechotransduction in cardiac myocytes; and iii) cardiac myocyte hypertrophy will be studied to provide important insights into how actin-myosin mechanics influence cardiac myocyte signaling and hypertrophy. The results may establish new techniques for studying the molecular basis for the pathogenesis of cardiomyopathies.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	VALENCIK,MARIA L.		384,480	3/31/2013
Health and Medical Services		UNR		MYOSIN LIGHT CHAIN KINASE	Factors influencing myosin light chain kinase - smooth muscle myosin (MYLK-SMM) interactions are to be determined using a wide range of biochemical, kinetic, and imaging techniques. This knowledge will increase our knowledge base of the mechanisms by which MYLK tunes smooth muscle contraction in normal and disease states.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	CREMO,CHRISTINE R.		478,807	5/31/2015
Health and Medical Services		UNR		YEAST PRION FACTOR (PSI+)	Misfolding of yeast proteins into amyloid-like aggregates, similar to neurodegenerative disease in humans will be investigated.	Department of Health & Human Services, National Institutes of Health, National Institute of General Medical Sciences	LIEBMAN,SUSAN		815,879	8/31/2013
Health and Medical Services		UNR		MECH KINESIN SELF-REGULATION	Protein interactions regulating smooth muscle are to be mapped at the amino acid resolution using 3D mass spectrometry.	Department of Health & Human Services, National Institutes of Health, National Institute of General Medical Sciences/Northwestern University	CREMO,CHRISTINE R.		35,250	6/30/2012
Health and Medical Services		UNR		INTELLIGENT ROBOTIC DECISIONS	Advancing NASA's computer vision, robotics, and visualization technologies, in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames, to improve planetary exploration and related sciences.	Department of Defense, Department of the Navy	GOODMAN,PHILIP H.		271,513	9/30/2012
Health and Medical Services		UNR	UNLV	GERIATRIC TRAINING 11-12	Development retraining program, Geriatric Faculty Scholars, will provide geriatric medicine faculty training for physicians, dentists, and mental and behavioral health professionals within the Nevada System of Higher Education in the Medical and Dental Schools through a mini-fellowship experience.	Department of Health & Human Services, Health Resources & Services Administration	CHAU,DIANE		586,674	6/30/2012
Health and Medical Services		UNR		CLINICAL RES ASSIST-OCHS 11-12	Funds a clinical research assistant for oncology research.	Department of Veteran's Affairs/Sierra Veteran's Research	MACKINTOSH,FREDERICK R.		77,096	6/30/2012
Health and Medical Services		UNR		GERIATRIC TRAINING	Geriatric medicine faculty training for physicians, dentists, and mental and behavioral health professionals within the Nevada System of Higher Education in the Medical and Dental Schools.	Department of Health & Human Services, Health Resources & Services Administration	CHAU,DIANE		143,785	6/30/2012
Health and Medical Services		UNR		EFFECTS CDDO-ME ON GVHD & GVT	Therapies will be developed to target molecular defects in cute myeloid leukemia with reduced toxicity to normal tissues and more durable remissions for all subsets of acute myeloid leukemia.	Department of Health & Human Services, National Institutes of Health/University of Texas	MURPHY,WILLIAM J.		40,411	8/31/2012
Health and Medical Services		UNR	Univ of NM	ANTHRACIS: ANTICAPSULAR MAB	Affinity roles of immune agents, IgG subclass and mAb, as independent variables influencing protective activity are to be studied to identify <i>in vitro</i> correlates of protection. The cellular and molecular basis for protection afforded by poly-γ-d-glutamic acid (γDPGA) antibodies will be a main focus.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	KOZEL,THOMAS R.		2,108,035	11/30/2012
Health and Medical Services		UNR		RCE: INHALATIONAL MELIOIDOSIS	Development of a point-of-care immunoassay for detecting secreted bacterial antigens in serum and urine for early diagnosis of melioidosis.	Department of Health & Human Services, National Institutes of Health/University of California, Irvine	AUCOIN,DAVID PAUL		735,138	4/30/2012
Health and Medical Services		UNR		KSHV LATENT DNA REPLICATION	The overall goal of this project is to elucidate the replication mechanism of KSHV during latent infection. Kaposi's sarcoma associated Herpes virus (KSHV) predominantly infects Bcells and endothelial cells and persists indefinitely in the infected hosts with the expression of a limited number of genes.	Department of Health & Human Services, National Institutes of Health, National Cancer Institute	VERMA,SUBHASH C.		739,530	8/31/2012
Health and Medical Services		UNR		CHARACTERIZATION OF HCMV UL84	Determine a role for the post translational modifications of ubiquitination and CK2-mediated phosphorylation, and elucidate the complete set of cellular/viral factors interacting with specific elements within oriLyt.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	PARI,GREGORY S.		784,949	4/30/2015
Health and Medical Services		UNR	InBios Int'l; Battelle	ANTHRAX POC DIAGNOSTIC	An immunoassay that identifies the presence of two or more distinct Aspergillus specific antigens, focusing on anthrax, is to be developed and tested.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	KOZEL,THOMAS R.		718,102	4/30/2016
Health and Medical Services		UNR		HCMV UL84 SUPPLEMENT	The post translational modifications of the UL84 protein associated with human cytomegalovirus (HCMV), a beta herpes virus are to be characterized. Additionally, the interaction of UL84 with other viral encoded factors will be investigated.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	PARI,GREGORY S.		41,779	4/30/2015

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Health and Medical Services		UNR		DIAG HISTOPLASMOSIS HIV/AIDS	Protocols for immunization of mice to produce reactions with Histoplasma capsulatum polysaccharide antigens will be optimized. Hybridomas that produce monoclonal antibodies reactive with H. capsulatum polysaccharide antigens will be developed, cloned and screened for reactive effectiveness.	Department of Health & Human Services, National Institutes of Health/Immuno Mycologics Incorporated	KOZEL,THOMAS R.		164,885	6/30/2012
Health and Medical Services		UNR		MYCOTOXIN ANTIBODY	Determine if anti-mycotoxin monoclonal antibodies, alone and modified with nanoparticles, can prevent the mycotoxin-mediated inhibition of protein synthesis in human cells <i>in vitro</i> .	Department of Defense, Department of the Air Force/ADA Technologies	HUNTER,KENNETH W.		46,389	4/30/2012
Health and Medical Services		UNR		TARGET INVASIVE ASPERGILLOSIS	Develop an immunoassay for diagnosis of invasive aspergillosis. The ultimate product will be an immunoassay that detects the presence of two or more distinct Aspergillus-specific antigens in serum and urine.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	KOZEL,THOMAS R.		404,853	3/31/2012
Health and Medical Services		UNR		CLCA CHANNELS/VASCULAR MYOCY..	Accurately define the ionic mechanisms controlling electrical and mechanical activities in smooth muscle cells of large conduit and resistance-sized vessels associated with health and disease.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	LEBLANC,NORMAND		1,597,866	6/30/2012
Health and Medical Services		UNR		REG OF MYOMETRIAL RELAXATION..	Determine the signal transduction mechanisms unique to or altered in the human myometrium in preterm labor for developing treatments alternatives for premature labor.	Department of Health & Human Services, National Institutes of Health, National Center for Child Health & Human Development	BUXTON,IAIN		1,265,526	2/28/2013
Health and Medical Services		UNR		INTEGRIN ALLEVIATION OF MD	Develop a small-molecule discovery program to identify compounds targeting the $\alpha 7$ integrin gene expression to determine if compounds that increase $\alpha 7$ integrin expression may serve as a potential therapy for Duchenne muscular dystrophy. If successful, the compounds would then be incorporated into therapeutic strategy for muscular dystrophy.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke	BURKIN,DEAN J.		387,641	3/31/2012
Health and Medical Services		UNR		INTEGRIN ALLEVIATION OF MD	Investigate the efficacy of enhancing $\alpha 7$ integrin expression in myoblasts or vascular smooth muscle as effective therapy for the treatment of muscular dystrophy.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases	BURKIN,DEAN J.	DAVID L ZIMMERMAN	974,234	4/30/2013
Health and Medical Services		UNR		ANGIOGENESIS IN BREAST CANCER	Pre-doctoral fellowship support for the PI to conduct basic research on the mechanisms of angiogenesis in breast cancer using a murine model of human breast metastatic disease.	Department of Defense, United States Army Medical Research Acquisition	BUXTON,IAIN		47,161	4/30/2013
Health and Medical Services		UNR		PRECLINICAL INTEGRIN TREATM/MD	Initiate preclinical testing of candidate compounds in mouse models for treating Duchenne muscular dystrophy.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases	BURKIN,DEAN J.		342,630	5/31/2013
Health and Medical Services		UNR		CARDIAC CFTR IN HEART FAILURE	Determine the novel cardio protective role of cardiac cystic fibrosis transmembrane conductance regulator (CFTR) in cardiac hypertrophy and heart failure, and investigate the associated underlying molecular mechanisms.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	DUAN,DAYUE		368,567	12/31/2012
Health and Medical Services		UNR		OPTIMIZATION INTEGRIN MOLECULE	Perform studies on the optimization of compounds enhancing the expression of the alpha7 integrin.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases/Prothelia, Incorporated	BURKIN,DEAN J.		55,000	9/30/2012
Health and Medical Services		UNR		REGULATION OF LABOR	Determine if integrin proteins control uterine contraction and if these proteins are altered in cases of pre-term labor or in post-term pregnancies.	Department of Health & Human Services, National Institutes of Health, National Center on Minority Health & Health Disparities	BURKIN,HEATHER R.		107,924	7/31/2013
Health and Medical Services		UNR		CONGENITAL MUSCULAR DYSTROPHY	Funding supporting a conference titled "Congenital Muscular Dystrophy: From Clinical Pathology to Underlying Scientific Mechanisms, Exploring the Role of the Myomatrix" to be held at the University of Nevada School of Medicine.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases	BURKIN,DEAN J.		20,000	3/31/2013
Health and Medical Services		UNR		ELEC CONTROL-GASTRIC MOTILITY	Determine whether symptoms observed in human disease when Interstitial cells of Cajal (ICC) are lost are similarly manifest in animal models.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	SANDERS,KENTON M.		1,425,220	12/31/2013
Health and Medical Services		UNR		KLHL 10...	Identify the molecular mechanism by which Kelch-like 10 (KLHL10) protein regulates spermiogenesis.	Department of Health & Human Services, National Institutes of Health, National Center for Child Health & Human Development	YAN,WEI		1,449,082	5/31/2012
Health and Medical Services		UNR		OCULOMOTOR SYSTEM	Address diagnosis, treatment, prevention of disease, disability and other health problems of the elderly through collaboration among several health professions schools and health care facilities, and training of health professional faculty, students, and practitioners.	Department of Health & Human Services, National Institutes of Health, National Eye Institute	VON BARTHELD,CHRISTOPHER S.		1,055,936	7/31/2012

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Health and Medical Services		UNR		GASTRIC COMPLIANCE IN STOMACH	Determine the differences in specific populations of intramuscular (ICC-IM) in the fundus, corpus and antrum and how these differences contribute to the regional diversity of stomach response to distension following meal ingestion.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	WARD,SEAN M.		1,266,857	6/30/2012
Health and Medical Services		UNR		BESTROPHIN CHANNEL FUNC/HEART	Elucidate the function of Bestrophin chloride channel proteins in regulating cardiac excitability especially during repolarisation of cardiac action potential to provide novel insights into the role of Bestrophin channels in cardiac physiology and disease states for identifying potential therapeutic targets.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	BRITTON,FIONA C.		1,405,000	6/30/2013
Health and Medical Services		UNR		REFLEX PATHWAYS	Administrative supplement to parent grant: Notice of Availability of Recovery Act Funds for Administrative Supplements	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	SMITH,TERENCE K.		1,357,282	1/31/2013
Health and Medical Services		UNR		REG MECH INTES MOT:PPG-PROJ 1	Define more clearly the basic cellular mechanisms for gastrointestinal motility, and why dysmotilities develop in the abnormal GI tract.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	SANDERS,KENTON M., KOH, SANG DON, MUTAFOVA-YAMBOLIEVA, V.N., WARD, SEAN M. SANDERS, KENTON M., KEEF, KETHLEEN D.		5,625,428	4/30/2014
Health and Medical Services		UNR		ARRA: ID OF TREK-1 CHANNEL	Investigate the relationship of estrogen on bladder stretch receptors and its impact on female post menopausal incontinence.	Department of Health & Human Services, National Institutes of Health, National Center for Child Health & Human Development	KOH,SANG DON		351,250	4/30/2012
Health and Medical Services		UNR		ENDOCRINE DISRUPTOR ACTIONS	Develop targeting constructs, electroporate the constructs into rat embryonic stem cells, select targeted ES cells, and verify correct targeting. Correctly targeted cells will be sent to Washington State University for further analyses.	Department of Health & Human Services, National Institutes of Health/Washington State University	YAN,WEI		35,296	4/30/2012
Health and Medical Services		UNR		CONTROL OF IAS MOTILITY	Mechanisms which control anal muscle contraction and hence anal pressure will be characterized, leading to new strategies to prevent and diagnose and treat internal anal sphincter (IAS) dysfunction.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	KEEF,KATHLEEN D.		931,798	3/31/2014
Health and Medical Services		UNR	U of TX at San Antonio	REGULATION OF SPERMATOGENESIS	Highly novel study designed to reveal an unprecedented mechanism of escape from MSC1, and to identify actual functions of X-linked miRNAs that undergo escape during spermatogenesis.	Department of Health & Human Services, National Institutes of Health, National Center for Child Health & Human Development	YAN,WEI		804,727	3/31/2015
Health and Medical Services		UNR	OR Health & Sci Univ	VALIDATION/QUANTUM DOT-LABELED	Validate the use of quantum dot-labeled proteins in <i>in vivo</i> animal model systems to verify retained protein trafficking and function for potential use in biomedical diagnostic and therapeutic treatment.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke	VON BARTHELD,CHRISTOPHER S.		366,947	8/31/2012
Health and Medical Services		UNR		IKCA CHANNELS/VASCULAR REMODEL	Examine the role of intermediate conductance Ca2+-activated K+ (IKCa) channels in the development of atherosclerosis.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	MIURA,HIROTO		634,500	6/30/2012
Health and Medical Services		UNR		ARRA: IKCA CHANNELS/VASCULAR	Examine the role of intermediate conductance Ca2+-activated K+ (IKCa) channels in the development of atherosclerosis.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	MIURA,HIROTO		143,737	6/30/2012
Health and Medical Services		UNR	UNLV; NVCI; GBC; TMCC; CSN; NSC	INBRE YR 7	Continued development of multidisciplinary research network focusing on improving public health by developing infrastructure and personnel to support biomedical research and education. In addition, programs to engage underserved communities in biomedical issues will be developed.	Department of Health & Human Services, National Institutes of Health, National Center for Research Resources	KENYON,JAMES L.	DIANE S LIDKE	2,995,404	5/31/2012
Health and Medical Services		UNR		MICRO-RNAS TARGET KIT OF ICC	Investigate the role of microRNA for targeting the receptor tyrosine kinase (KIT) to inhibit the development and maintenance of interstitial cells of Cajal (ICC) in diabetic gastroenteropathy.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	RO,SEUNGIL		387,750	3/31/2013
Health and Medical Services		UNR		COBRE-PROJECT 1 2012	Renewed funding for the UNR Smooth Muscle Plasticity Center of Biomedical Research Excellence (COBRE) focusing on smooth muscle biology. The COBRE consists of 5 projects: motor defects in diabetic gastroparesis; phophoiamban and CaM Kinase II in smooth muscle plasticity; <i>in vitro</i> model system for determining regulatory mechanisms for smooth muscle mechanics; smooth muscle hypertrophy regulated by microRNAs and their target genes; and, stretch-dependent potassium channel regulation in overactive bladder.	Department of Health & Human Services, National Institutes of Health, National Center for Research Resources	HENNIG,GRANT W., PERRINO, BRIAN A., BAKER, JONATHAN, RO, SEUNGIL, KOH, SANG DON, SANDERS, KENTON M., YAN, WEI, WARD, SEAN M., SMITH, TERENCE K.		2,086,372	7/31/2012
Health and Medical Services		UNR		COBRE-PROJ 1 2012-16	Comprehend and manipulate the fundamental processes of signaling in cell biology relevant for human disorders, including cancer, immunological and neurological diseases, and enteric malformations.	Department of Health & Human Services, National Institutes of Health, National Center for Research Resources	VON BARTHELD,CHRISTOPHER S.		2,142,276	7/31/2016

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Health and Medical Services		UNR		SIMULATION CENTER EQUIPMENT	Equipment Purchase Grant: Develop a live video system to capture real hospital operative procedures in teamwork settings to improve operative efficiency, team work, compliance, quality, and cost containment.	Department of Health & Human Services, Health Resources & Services Administration/Nevada System of Higher Education/Chancellor's Office	ZAMBONI,WILLIAM A.		303,453	8/31/2012
Health and Medical Services		UNR	UHS/MED SCHOOL ASSOCIATES SOUTH; Rocky Research	HIGH SPEED BLOOD & FLUID EQUIP	Development of prototype portable high speed blood and fluid transfusion warmer without any source of external energy for improving survival rates of hypothermic patients in remote areas.	Department of Defense, Department of the Navy	FILDES,JOHN J.	REGULATORY COMPLIANCE	3,088,200	6/30/2013
Health and Medical Services		UNR	Rocky Research; MedSchool Assoc So.	PORTABLE BODY TEMP CONDITIONER	Development of a portable medical device for stabilizing body temperature in an injured or ill patient in a remote location.	Department of Defense, United States Army Medical Research Acquisition	BROWDER,TIMOTHY D.		2,096,000	10/18/2012
Health and Medical Services		UNR	MedSchool Associates So.	EDUCATION & INJURY PREVENTION	Collaborative effort with the Center for Traffic Safety to analyze existing data to create demographic oriented educational and intervention opportunities to reduce injuries.	Department of Transportation, National Highway Traffic Safety Administration/State of Nevada, Department of Public Safety, Office of Traffic Safety	KUHLS,DEBORAH A.		90,000	9/30/2012
Health and Medical Services		UNR		DETR SATISFACTION SURVEYS	Telephone survey of the State of Nevada Department of Employment, Training, and Rehabilitation customers with respect to the Vocational Rehabilitation Services.	Department of Education/Office of Special Education & Rehabilitative Services/State of Nevada, Department of Employment, Training & Rehabilitation	DAHIR,VERONICA G.		95,714	12/31/2014
Health and Medical Services		UNR		BRFSS NEVADA 2012	Survey of health behaviors in the state of Nevada to identify risk factors.	Department of Health & Human Services, Centers for Disease Control & Prevention/State of Nevada Division of Health & Human Services, Health Division	DAHIR,VERONICA G., YANG, WEI		301,951	2/28/2013
Health and Medical Services		UNR		NV OFFICER DRIVING SAFETY	Identify safety issues experienced by Nevada Highway Patrol (NHP) officers.	Department of Transportation, National Highway Traffic Safety Administration/State of Nevada, Department of Public Safety, Office of Traffic Safety	DAHIR,VERONICA G.		4,971	6/30/2012
Health and Medical Services		UNR	UC Davis; Public Health Inst	LATINOS USING MEDICARE	Assess if disparities in Latino cancer survival disadvantages for breast, stomach and prostate cancer are due to lack of access and utilization of quality care.	Department of Health & Human Services, National Institutes of Health, National Cancer Institute	SMITH GAGEN,JULIE		156,367	6/30/2012
Health and Medical Services		UNR		FAMILY TIES	Provide technical assistance and support for the evaluation of Family TIES program for the Family-to-Family Health Information's Center.	Department of Health & Human Services, Health Resources & Services Administration/Family Ties of Nevada	ANSTEE,JAIME		10,000	5/31/2012
Health and Medical Services		UNR		FAMILY RESOURCE CENTER EVAL	Design and administer surveys at the Family Resource Center sites; analyze and report on the data.	Department of Health & Human Services, Administration for Children & Families/Washoe County School District	CHRISTIANSEN-G,ELIZABETH J.		2,000	6/30/2012
Health and Medical Services		UNR		WORKPLACE BREASTFEEDING	Identify patterns of breast feeding initiation and duration of working mothers and identify ideal storage containers (bag or bottle) for pumped breast milk storage for maintaining levels of vitamin A and C.	Department of Health & Human Services, Centers for Disease Control & Prevention/University of California, Los Angeles	SMITH GAGEN,JULIE		20,520	6/30/2012
Health and Medical Services		UNR		ENERGY BIOFIELD THERAPY	Determine the limits of Healing Touch treatment to reduce tumor growth and symptoms of graft vs. host disease in murine models, assess the effect on immune parameters, and determine level of treatment needed for significantly affecting outcome.	Department of Health & Human Services, National Institutes of Health, National Center for Complementary & Alternative Medicine	RUNNING,ALICE F.		210,688	3/31/2012
Health and Medical Services		UNR		RURAL PATIENTS W/HEART FAILURE	Test the effects of clinical outcomes of an education intervention focused on fluid weight management designed specifically for rural patients with heart failure conditions.	Department of Health & Human Services, National Institutes of Health/University of California, San Francisco	PELTER,MICHELE M.		316,685	4/30/2012
Health and Medical Services		UNR		COMPARE: ELECTROCARDIOGRAPHIC	Collect and analyze electrocardiographic (ECG) data related to treatment of acute coronary syndrome to determine if frequency, characteristic or clinical consequences differ among patients treated with an early versus selectively invasive strategy.	Department of Health & Human Services, National Institutes of Health, National Institute of Nursing Research	PELTER,MICHELE M.		374,860	6/30/2012
Health and Medical Services		UNR		CYFERNET TEEN EDITORIAL BOARD	Programming and oversight of materials for the teen section of the CYFERnet web site. Provide leadership for youth related CYFER professional development activities.	Department of Agriculture, National Institute of Food & Agriculture/University of Kentucky	EVANS,WILLIAM P.		81,000	5/31/2012
Health and Medical Services		UNR		GLS YOUTH SUICIDE PREVENTION	Expanding Nevada's professional ability to address youth at risk for suicide by connecting at risk youth to professional staff via a text message system.	Department of Health & Human Services, The Substance Abuse & mental Health Services Administration/State of Nevada Department of Health & Human Services, Directors Office	EVANS,WILLIAM P.		89,653	9/30/2012

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Health and Medical Services		UNR		GLS YOUTH SUICIDE PREVENT-YR#3	Expanding Nevada's professional ability to address youth at risk for suicide by connecting at risk youth to professional staff via a text message system.	Department of Health & Human Services, The Substance Abuse & Mental Health Services Administration/State of Nevada Department of Health & Human Services, Directors Office	EVANS,WILLIAM P.		51,637	9/30/2012
Health and Medical Services		UNR	Lyon County	4-H YFP	Development of a state wide mentoring program for at-risk youth, Youth and Families with Promise (YFP) according to National 4-H Council guidelines.	Department of Justice, Office of Juvenile, Justice & Delinquency Prevention/National 4H Council	SMITH,MARILYN G.		82,000	3/15/2012
Health and Medical Services		UNR	KUMC Res Inst; MedSchool Assoc So.; UCLA	NUTR & CANCER PRECEPTOR EDUC	Internal Medicine and Family Medicine residents from the University of Kansas Medical Center Research Institute, Inc. and Pediatric Family Medicine residents from the University of California Los Angeles will be recruited to participate as subjects of this nutrition and cancer education study over a three year intervention program.	Department of Health & Human Services, National Institutes of Health, National Cancer Institute	ASHLEY,JUDITH M.	CHARLES MICHAEL BROOKS; ROBERT M CHAMBERLAIN; LU ANN WILKERSON	1,274,392	7/31/2013
Health and Medical Services		UNR		GAMMA-GLUTAMYL-CYSTEINE (GGC)	Determine the feasibility of using gamma-glutamylcysteine (GGC) as a dipeptide precursor for GSH in modulating the oxidative damage subsequent to ischemia-reperfusion injury.	Department of Defense, United States Army Medical Research & Materiel Command	OMAYE,STANLEY T.		106,078	6/30/2012
Health and Medical Services		UNR		NV FSNE12-RETHINK YOUR DRINK	Implement two components of a social marketing campaign that will lead to decreased consumption of sugar-sweetened beverages among young, low-income children.	Department of Agriculture, Food & Nutrition Service/State of Nevada Department of Health & Human Services, Division of Welfare & Supportive Services	BENEDICT,JAMIE A.		98,807	9/30/2012
Health and Medical Services		UNR		IN UTERO STEM CELL TRANSPLANTA	Target the fetal immune-response and ensure the presence of a supportive microenvironment which will enable achievement of therapeutic levels of HSC engraftment following JUSCT and cure a clinically relevant sheep model of a lysosomal storage disease.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	ZANJANI,ESMAIL D.		2,004,537	8/31/2012
Health and Medical Services		UNR		ILLEGAL SURGERY AWARENESS	Develop and conduct outreach and awareness programs among the Latino populations in Northern Nevada on the dangers of using uncertified and unqualified individuals to perform illegal medical procedures and/or illegal purchasing of controlled medical drugs.	Nevada Public Health Foundation	BRADLEY,DREW		15,000	6/30/2012
Health and Medical Services		UNR		VETERANS COMING HOME TO COLLEG	Improving the health, well-being, and successful reintegration of military veterans returning from Operation Enduring Freedom (OEF) in Afghanistan and Operation Iraqi Freedom (OIF) in Nevada communities.	Society for the Psychological Study of Social Issues	ELLIOTT,MARTA		21,600	6/30/2012
Health and Medical Services		UNR		SMART POLICING: EVIDENCE BASED	Develop a program to prevent the diversion and abuse of prescription drugs in Washoe County for the Reno Police Department.	City of Reno, Nevada Police Department	BARTHE,EMMANUEL		34,933	4/30/2012
Health and Medical Services		UNR		CBA PROJECT	Novel candidates for anti-HIV and immunomodulatory drugs will be synthesized and evaluated for efficacies.	Katholieke Universiteit Leuven	BELL,THOMAS W.		453,048	12/31/2012
Health and Medical Services		UNR		CT:TVP-1012/PM103	Industry-sponsored clinical trial to research the effect of Droxidopa, an investigational medication, in the treatment of neurogenic orthostatic hypotension in volunteer patients with Parkinson's disease.	TEVA Neuroscience	FARBMAN,ERIC S.		20,933	6/30/2012
Health and Medical Services		UNR		CT:DROXIDOPA NOH306	Industry-sponsored clinical trial to research the effect of Droxidopa, an investigational medication, in the treatment of neurogenic orthostatic hypotension in volunteer patients with Parkinson's disease.	PPD Development	FARBMAN,ERIC S.		35,486	8/11/2015
Health and Medical Services		UNR		CT:IPX066-B09-06	Industry sponsored clinical trial to research the effect of Droxidopa, an investigational medication, in the treatment of neurogenic orthostatic hypotension in volunteer patients with Parkinson's disease.	Impax Laboratories Incorporated (administered by INC Research Group)	FARBMAN,ERIC S.		39,546	8/6/2012
Health and Medical Services		UNR		CT:DROXIDOPA NOH304	Industry-sponsored clinical trial to research the effect of Droxidopa, an investigational medication, in the treatment of neurogenic orthostatic hypotension in volunteer patients with Parkinson's disease.	Chelsea Therapeutics (administered by Atlantic Research Group)	FARBMAN,ERIC S.		16,409	1/11/2016
Health and Medical Services		UNR		CT:101JC402	Identify multiple sclerosis patients with a specific antibody in their blood against the John Cunningham virus (JCV).	Biogen IDEC Incorporated	GINSBURG,DAVID L.		5,550	6/30/2014
Health and Medical Services		UNR		CT:223AS302	Phase 3 Clinical Trial: Safety and efficacy of Dexamipexole in patients with amyotrophic lateral sclerosis.	Biogen IDEC Incorporated	GINSBURG,DAVID L.		49,000	4/22/2012
Health and Medical Services		UNR		CT:223AS302 APP1	Phase 3 Clinical Trial: Safety and efficacy of Dexamipexole in patients with amyotrophic lateral sclerosis.	Biogen IDEC Incorporated	GINSBURG,DAVID L.		4,465	6/26/2012
Health and Medical Services		UNR		CT:CENTOCOR 3002	Phase 3 Clinical Trial: Study to evaluate the safety and efficacy of Ustekinumab Induction therapy in patients with moderate to severe active Crohn's disease.	Centocor Incorporated	STONE,CHRISTIAN D.		2,500	10/30/2014
Health and Medical Services		UNR		CT:IPX066-B11-01	Study of carbidopa-levodopa extended-release (CD-LD ER) taken alone or in combination with carbidopa-levodopa immediate release (IR) to IPX066 followed by an open-label extension safety study of IPX066 in subjects with advanced Parkinson's disease.	Impax Laboratories Incorporated	FARBMAN,ERIC S.		1,000	10/6/2012
Health and Medical Services		UNR		CT:CENTOCOR 3003	Phase 3 Clinical Trial: Study to evaluate the safety and efficacy of Ustekinumab Induction therapy in patients with moderate to severe active Crohn's disease.	Centocor Incorporated	STONE,CHRISTIAN D.		2,500	10/30/2014
Health and Medical Services		UNR		CT:CENTOCOR 3001	Phase 3 Clinical Trial: Evaluation of the safety and efficacy of Ustekinumab Induction therapy in subjects with moderately to severely active Crohn's disease who have failed or are intolerant to TNF antagonist therapy.	Centocor Incorporated	STONE,CHRISTIAN D.		2,500	10/30/2014
Health and Medical Services		UNR		CT:M12-071	Study to determine the effect of methotrexate dose on clinical outcome and ultrasonographic signs in subjects with moderately to severely active rheumatoid arthritis treated with adalimumab (MUSICA).	Abbott Laboratories (administered by Covance)	OLECH,EWA		3,500	12/30/2012
Health and Medical Services		UNR		ATRIAL NATRIURETIC PEPTIDE REC	Determine the structure of the Atrial Natriuretic Peptide receptor by single particle electron microscopy and by electron crystallography, and elucidate transmembrane signaling mechanism as related to heart blood flow.	American Heart Association, Western States Affiliate	MISONO,KUNIO		113,052	6/30/2012
Health and Medical Services		UNR		YEAST CELL-BASED HTS SCREEN	Development of a yeast assay to screen chemicals and drugs for inhibitors of Abeta aggregation.	Alzheimer's Association, National Office	LIEBMAN,SUSAN		189,409	8/31/2013
Health and Medical Services		UNR		GLUT4 TRAFFICKING KINETICS	Apply a recently developed kinetic assay to rapidly generate and test hypotheses about the function of novel proteins in Glut4 trafficking and to develop a model to predict/identify novel regulatory steps of diabetic insulin action.	American Diabetes Association	MASTICK,CYNTHIA C.		109,250	12/31/2012
Health and Medical Services		UNR		CT:NB301 NALTREXONE	Controlled study comparing the safety and efficacy of two doses of Naltrexone sustained release (SR)/Bupropion sustained release (SR) and placebo in obese subjects.	Orexigen Therapeutics Inc.	PLODKOWSKI,RAYMOND A.		324,900	6/30/2012
Health and Medical Services		UNR		CT:NB304 DM2	Clinical trial to evaluate Naltrexone 32mg sustained release (SR)/Bupropion 360 mg sustained release in obese subjects with Type 2 Diabetes mellitus.	Orexigen Therapeutics Inc.	PLODKOWSKI,RAYMOND A.		81,382	6/30/2012

MAPPING OF UNIVERSITY OF NEVADA, RENO SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*

UNR - UNIVERSITY OF NEVADA, RENO

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Health and Medical Services		UNR		ZB-202 ZONISAMIDE	Phase 2. Controlled safety and efficacy study of zonisamide SR plus bupropion SR combination therapy in subjects with uncomplicated obesity.	Orexigen Therapeutics Inc.	PLODKOWSKI,RAYMOND A.		251,831	6/30/2012
Health and Medical Services		UNR		CT:AVF4349N	Observational study to characterize the clinical outcome for different patient populations with advanced breast cancer by tumor and treatment patterns; optional participation will contribute to tumor tissue collection and a DNA research repository.	Genentech Incorporated	MACKINTOSH,FREDERICK R.		35,351	11/20/2014
Health and Medical Services		UNR		CT:LIXISENATIDE ACS DM2	Evaluate the effectiveness of lixisenatide in preventing cardiovascular events by lowering the blood sugar, in patients with Type II Diabetes.	SANOFI-AVENTIS	KULICK,DOINA		95,400	2/24/2016
Health and Medical Services		UNR		CT:A-TL-52120-156	Clinical trial for DYSPORT injection (abobotulinumtoxinA neurotoxin) for treatment of cervical dystonia.	TERCICA INC	MEHTA,NIDHI		5,670	6/1/2016
Health and Medical Services		UNR		CT:BIPI 1237.5 TIO+OLODATEROL	Safety and efficacy clinical trial of orally inhaled tiotropium plus olodaterol fixed dose combination in chronic obstructive pulmonary disease (COPD) patients.	Boehringer Ingelheim	KRUMPE,PETER E.		293,362	11/29/2016
Health and Medical Services		UNR		KAPOSI'S SARCOMA CANCER PATHWY	Support for the interdisciplinary graduate program in cancer research administered through the Department of Microbiology and Immunology.	Reno Cancer Foundation Incorporated	DESTJEOR,STEPHEN C.		12,000	9/30/2012
Health and Medical Services		UNR		RENO CANCER FELLOWSHIP:NUTRITI	Support for one medical student to participate in a 10 week nutrition and cancer research project.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		5,000	10/31/2012
Health and Medical Services		UNR		RENO CANCER FELLOWSHIP:NUTRITI	Support for mentoring medical students in clinical research experiences that increase their knowledge of nutrition in cancer prevention and therapy; and to provide additional experiences related to cancer prevention and therapy.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		5,000	10/31/2012
Health and Medical Services		UNR		RENO CANCER FELLOWSHIP:NUTRITI	Provide an integrated education and training experience for one medical student that will promote his/her understanding of the role of nutrition in cancer prevention and therapy.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		7,000	10/31/2012
Health and Medical Services		UNR		CT:HGT-FIR-054	Phase 3 Trial: Icatibant injection for treatment of patients with acute attacks of hereditary angioedema.	Jerini United States Incorporated	HOGAN,MARY BETH		144,713	11/12/2014
Health and Medical Services		UNR		RENO CANCER FOUNDATION	Support one medical student for training and experiential learning that promotes the role of nutrition in cancer prevention and therapy.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		7,000	10/31/2014
Health and Medical Services		UNR		CT:DX-88/24	Phase 4 Study: Determine the rate of anaphylaxis to ecallantide, a newly approved therapeutic agent for hereditary angioedema (HAE).	Dyax Corporation	HOGAN,MARY BETH		8,200	12/30/2016
Health and Medical Services		UNR		RENO CANCER FELLOW: NUTRITION	Support one medical student for training and experiential learning that promotes the role of nutrition in cancer prevention and therapy.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		7,000	10/31/2015
Health and Medical Services		UNR		CYSTIC FIBROSIS DIALOGUE STUDY	Observational Clinical Study: Medical history questionnaire and digital audio recording of conversations and interactions of clinical staff with the patients at Cystic Fibrosis Center.	Verilogue, Inc.	BUDHECHA,SONIA K.		2,500	1/22/2013
Health and Medical Services		UNR		TREK-1 IN PRETERM LABOR	Regulation of myometrial relaxation in spontaneous pre-term child birth labor.	March of Dimes	BUXTON,IAIN		394,226	2/28/2013
Health and Medical Services		UNR		TREATMENT FOR PTL	Develop an effective treatment for preterm labor that results in a healthy fetus remaining in the mother's womb until normal term.	Bill & Melinda Gates Foundation	BUXTON,IAIN		100,000	10/31/2012
Health and Medical Services		UNR		VRCCS IN HEART FAILURE	Determine the molecular mechanisms for the function role of ion channels in the heart, specifically the chloride channel, CIC-3, role in the ionic and structural remodeling of the hypertrophic and failing heart.	American Heart Association, Western States Affiliate	DUAN,DAYUE		140,000	6/30/2012
Health and Medical Services		UNR		GATING MECHANISMS OF CFTR FY12	Study the regulation mechanisms of the R domain that govern activation gating of cardiac cystic fibrosis transmembrane conductance regulator (CFTR) channels.	American Heart Association, National Center	WANG,GUANGYU		231,000	6/30/2014
Health and Medical Services		UNR		TRPC1, STIM1 AND ORAI 1 FY12	Conduct surveys and meetings generating data for the Nevada SCSN and CCP HIV/AIDS services as required by HRSA.	American Heart Association, National Center	NG,LIH CHYUAN		77,000	6/30/2012
Health and Medical Services		UNR		INHIBITION MECHANISMS/CFTR	Study the regulation mechanisms of the R domain that govern activation gating of cardiac cystic fibrosis transmembrane conductance regulator (CFTR) channels.	American Heart Association, National Center	WANG,GUANGYU		7,002	6/30/2012
Health and Medical Services		UNR		TRPC1, STIM1 AND ORAI 1	Conduct surveys and meetings generating data for the Nevada SCSN and CCP HIV/AIDS services as required by HRSA.	American Heart Association, National Center	NG,LIH CHYUAN		3,894	7/1/2012
Health and Medical Services		UNR		UTERINE NITROPROTEOME	Identify S-nitrosylated proteins in human uterine smooth muscle tissue and analyze regulatory proteins involved in contraction and relaxation for differential S-nitrosylation in laboring versus non laboring tissue.	Pharma Foundation	ULRICH,CRAIG		20,000	12/31/2013
Health and Medical Services		UNR		CMD CONFERENCE	Support for a competitive travel and accommodation award for 5 postdoctoral and graduate students to attend the Muscular Dystrophy Association conference.	Muscular Dystrophy Association	BURKIN,DEAN J.		7,000	8/1/2012
Health and Medical Services		UNR		STEM CELL MIGRATION STROKE Y1	Investigate the role of electrical field-directed neural stem cell migration in ischemic stroke.	American Heart Association, Western States Affiliate	WAN,QI		70,000	12/31/2012
Health and Medical Services		UNR		STEM CELL MIGRATION STROKE Y2	Investigate the role of electrical field-directed neural stem cell migration in ischemic stroke.	American Heart Association, Western States Affiliate	WAN,QI		70,000	12/31/2013
Health and Medical Services		UNR		ALLOMAX ACELLULAR DERMAL MATRX	Analyze the collagen content of the Allomax Product and characterize effect following implantation in a small animal model.	Davol Incorporated	KHIABANI,KAYVAN T.		26,001	10/6/2012
Health and Medical Services		UNR		THE CARE VOG STUDY	An environmental-epidemiological study assessing the cardio-respiratory health status of volcanic air pollutants exposed residents at the Kilauea Volcano, Hawaii.	SIGMA THETA TAU INTL	LONGO,BERNADETTE M.		4,975	5/31/2012
Health and Medical Services		UNR		VIDEO-BASED INTERVENTION	Evaluation of a Video-based Intervention to promote condom use among Chinese college students.	American Nurses Foundation	TUNG,WEI-CHEN		2,792	9/30/2012
Aerospace and Defense		UNR		CO-EVOLVING TACTICS	Develop a prototype for a revolutionary genetic algorithm based artificial intelligence learning system that learns from subject matter for decision making simulations.	Department of Defense, Department of the Navy	LOUIS,SUSHIL, HOUMANFAR, RAMONA		595,957	3/31/2012
Aerospace and Defense	Clean Air	UNR		TUNGSTEN IONS FOR MAGNETIC FUS	Study of plasma radiation with medium-Z impurities for a broad range of ionization stages.	Department of Energy	SAFRONOVA,ALLA S.		449,996	12/14/2013
Aerospace and Defense	Clean Air	UNR		MODELING OF EXTREME-INTENSITY	Develop a full-scale multi-dimensional photo-ionized plasma (PIC) model that includes the atomics physics, such as collision, ionization, and radiation.	Department of Energy	SENTOKU,YASUHIKO		89,130	9/29/2012
Aerospace and Defense	Clean Air	UNR		EXTREME STATES OF MATTER	Multi-institutional study the physics underlying the creation of high energy density (HED) fusion plasmas by academic scientists from around the country into a collaboration to foster rapid progress in this novel field.	Department of Energy/University of Rochester	SENTOKU,YASUHIKO		153,371	1/31/2013
Aerospace and Defense	Clean Air	UNR		PRISM CODES/HEDP EXPERIMENTS	Application of prism simulation codes to modeling and analysis of high energy density plasma experiments.	Prism Computational Sciences	MANCINI,ROBERTO C.		21,714	7/16/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNR	UNIV OF DELAWARE	TRANSPARENT ARMOR POLYMER COMP	Develop an advanced transparent armor polymer material by integrating thermoplastic polymer particles as filler materials into both PC and PMMA matrices, and characterize associated mechanisms of impact failure and energy absorbing capability.	Department of Defense, Department of the Army	SUHR,JONGHWAN		224,002	3/28/2012

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Aerospace and Defense		UNR		MER - MINI - TES	Support the participation of a UNR researcher in the Mars Exploration Rover (MER) activities related to mini-TES data acquisition, calibration, interpretation and relation to other data acquired by the rovers.	National Aeronautics & Space Administration, National Jet Propulsion Laboratory	CALVIN,WENDY M.		739,864	9/30/2012
Aerospace and Defense		UNR		MARCI/CTX CO INVESTIGATOR	Analysis and interpretation of data gathered from the Mars Exploration Rover (MER) for surface and atmospheric composition and relationships between local geology, frost deposition and removal, and surface expression of geochemical weathering interactions.	National Aeronautics & Space Administration, Jet Propulsion Laboratory/Malin Space Science Systems	CALVIN,WENDY M.		228,682	9/30/2012
Aerospace and Defense		UNR		COMPACTION BANDS	Investigate the deformation of stratified sequences resulting in planetary land fault regions.	National Aeronautics & Space Administration	SCHULTZ,RICHARD A.		279,000	6/30/2012
Aerospace and Defense		UNR		EXTENSIONAL FAULT GROWTH	Scientific investigations of planetary surfaces and interiors, satellites (including the Moon), satellite and ring systems, and smaller Solar System bodies such as asteroids and comet that will improve the understanding of the extent and influence of planetary geological and geophysical processes.	National Aeronautics & Space Administration	SCHULTZ,RICHARD A.		90,000	6/30/2013
Aerospace and Defense		UNR		CRISM CO-I	Scientific input to the CRISM Science Operations Center at APL on the Mars Reconnaissance Orbiter Spacecraft, and provide support for processing data into standardized products to the Planetary Data System.	National Aeronautics & Space Administration, Jet Propulsion Laboratory/Johns Hopkins University	CALVIN,WENDY M.		7,500	9/30/2012
Aerospace and Defense		UNR		INSAR & GPS OBSERVATIONS	Integrate the large and complementary GPS and InSAR databases for describing surface deformation in plate boundary zones exhibiting active crustal deformation.	National Aeronautics & Space Administration	HAMMOND,WILLIAM C.		405,647	7/31/2012
Aerospace and Defense		UNR		UPLIFT & COLLAPSE/GREAT BASIN	Accurately characterize earth plate boundary uplift and collapse, and provide crucial first-order evidence on underlying processes.	National Science Foundation	BLEWITT,GEOFFREY		474,930	3/31/2012
Aerospace and Defense		UNR		ENHANCE GLOBAL GPS ACCURACY	Increase by >500% the number of GPS stations to accurately determine global geodetic parameters to further strengthen the network geometry.	National Aeronautics & Space Administration	BLEWITT,GEOFFREY		181,651	6/30/2012
Aerospace and Defense		UNR		IMPROVING STRAIN RATE MODELS	Enhance the utilization of GPS and InSAR data to capture fundamental deformation processes at high spatial and temporal resolution.	National Science Foundation	KREEMER,CORNELIS W.		288,230	8/31/2012
Aerospace and Defense		UNR		SPACE GEODETIC DATA PRODUCTS	Develop new quality control methods for current and legacy GNSS data.	National Aeronautics & Space Administration/UNAVCO	KREEMER,CORNELIS W.		154,728	12/31/2012
Aerospace and Defense		UNR		MOGUL EARTHQUAKE INVESTIGATION	Characterize rare shallow earthquake sequences to develop algorithms related to source parameters and regional propagation.	Department of Defense, Department of the Air Force	TIBULEAC,I LEANA M.		219,498	2/28/2013
Aerospace and Defense		UNR		ENGINEERING ANALYSIS FOR NNSS	Divert seismic data communications at Yucca Mountain to a reliable communication source.	Department of Energy/National Security Technologies	SMITH,KENNETH D.		24,270	3/31/2012
Aerospace and Defense		UNR		NNSS SEISMIC NETWORK	Real-time seismic monitoring in southern Nevada for constraining earthquake locations, magnitudes and ground motions, and improving overall earthquake response capabilities and earthquake awareness.	Department of Energy/National Security Technologies	SMITH,KENNETH D.		180,780	9/30/2012
Aerospace and Defense		UNR		ROCK VALLEY DEPLOYMENT	Data integration and data dissemination of the time series data derived from a seismic network by the Nevada Seismological Laboratory (NSL) at UNR.	Department of Energy/National Security Technologies	SMITH,KENNETH D.		141,333	9/30/2012
Aerospace and Defense		UNR		NST TELEMETRY	Seismic monitoring activities at the Nevada Nuclear Security Site (NNSS).	Department of Energy/National Security Technologies	SMITH,KENNETH D.		69,046	9/30/2012
Aerospace and Defense		UNR		SPE DATA INTEGRATION	Development of more efficient mechanisms for SPE data access, download, and dissemination.	Department of Energy/National Security Technologies	SMITH,KENNETH D.		187,639	9/30/2012
Aerospace and Defense		UNR	Raytheon Ktech	HED-2007	Development of high-energy short-pulse laser advanced capabilities and research on strongly magnetized high energy density matter.	Department of Energy	COVINGTON,AARON M.		27,700,234	12/31/2012
Aerospace and Defense		UNR		THEORETICAL X-RAY/EUV SPECT...	Theoretical studies of radiation from X- and Z- pinch plasmas in a wide spectral range, its anisotropy, and electron beam generation as a function of X-pinch or wire-array parameters.	Department of Energy	SAFRONOVA,ALLA S.		2,456,827	12/31/2012
Aerospace and Defense		UNR		X-RAY SPECTROSCOPY AT Z	Perform Stark-broadened line shape calculations and spectroscopic data analysis relevant for implosion and opacity experiments at the Z facility of Sandia National Laboratories.	Department of Energy/Sandia National Laboratories	MANCINI,ROBERTO C.		95,962	7/31/2012
Aerospace and Defense		UNR	SWARTHMORE COLLEGE	PHOTOIONIZED PLASMAS AT Z	Develop theoretical models and codes describing the atomic kinetics and radioactive properties of high energy density plasmas.	Department of Energy	MANCINI,ROBERTO C.		690,000	8/19/2012
Aerospace and Defense		UNR		REMOTE SENSING OF AEROSOLS	Expand existing research capacity in aerosol optical properties for satellite remote sensing, and connect the existing NASA network of ground-based sun and sky photometers with in-situ measurements of aerosol optical properties.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	ARNOTT,W. PATRICK		185,239	8/12/2013
Aerospace and Defense		UNR		MAGNETIC FUSION DIAGNOSTICS	Comprehensive theoretical effort in generation of high precision RMBPT atomic data and their comparison with other codes for identification and modeling of x-ray and EUV spectra for studying radiation from plasmas with medium-Z impurities.	Department of Energy	SAFRONOVA,ALLA S.		300,000	12/14/2013
Aerospace and Defense		UNR		IMPLOSION CHARACTERISTICS	Experimental studies of implosion characteristics and radiation properties of planar and cylindrical wire arrays and X-pinch.	Department of Energy	KANTSYREV,VICTOR L.	LEONID I ROUDAKOV; ALEXANDRE CHUVATIN	1,894,545	12/31/2012
Aerospace and Defense		UNR		HYDRODYNAMIC STABILITY	3D studies of hydro stability, mixing and shock dynamics in OMEGA direct-drive implosion cores.	Department of Energy	MANCINI,ROBERTO C.		272,349	1/31/2013
Aerospace and Defense		UNR		DIELECTRONIC NV SPACE GRANT	Generation of dielectronic recombination data.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	DEREVIANKO,ANDREI		20,000	5/4/2012
Aerospace and Defense		UNR		GENERATION OF X-RAY RADIATION	Development of a gas puffjet assembly for experimental and theoretical studies on gas-puffjet laser heating and x-ray generation.	Department of Defense/Hy-Tech Research Corporation	KANTSYREV,VICTOR L.		44,000	2/15/2014
Aerospace and Defense		UNR		LASER DIAGNOSTICS	Development of laser-based diagnostics to measure the plasma density and magnetic field with two-dimensional space resolution and gated in time.	Department of Energy/Lawrence Livermore Laboratory	PRESURA,RADU		54,996	5/31/2012
Aerospace and Defense		UNR		X-RAY SPECTROSCOPY NIF IMPL Y2	Perform Stark-broadened line shape calculations of tracer elements that can be added to the core of NIF implosion capsules for x-ray spectroscopy diagnostics.	Department of Energy/Lawrence Livermore Laboratory	MANCINI,ROBERTO C.		70,000	6/30/2012
Aerospace and Defense		UNR		EXPLORATION FOR FAST IGNITION	Theoretical and computational work in support fast ignition experimental studies.	Department of Energy/General Atomics	SENTOKU,YASUHIKO		25,000	5/31/2012

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Aerospace and Defense		UNR		CMR FLUID SPRING DAMPERS	Design, fabricate, and test a full-scale prototype compressible magneto-rheological (CMR) fluid spring-damper device for providing controllable vibration damping and liquid spring characteristics.	Department of Defense, Department of the Army/Advance Materials & Devices Incorporated	GORDANINEJAD,FARAMARZ		322,000	7/31/2012
Aerospace and Defense		UNR		FIELD-CONTROLLABLE MRE MOUNT	Design, develop, and test MRE mounts to support a variety of payloads within the same size and weight envelope while mitigating shock loads.	Department of Defense, Department of the Navy/Advanced Materials & Devices Incorporated	GORDANINEJAD,FARAMARZ		409,346	12/31/2012
Aerospace and Defense		UNR		TWISTABLE ARTIFICIAL MUSCLE	The unique properties of a new enabling "Artificial Muscle [AM]" (1-3, 6-10) will be incorporated into development of a compact and energy-efficient technology for enchased maneuvering of small biorobotic unmanned surface/underwater vehicles.	Department of Defense, Department of the Navy	KIM,KWANG J.		467,454	11/30/2012
Aerospace and Defense		UNR	UNIV OF DELAWARE	NUE: NANOTECH FOR ME COURSES	Enhanced educational experiences to prepare mechanical engineers to meet emerging challenges of nano-technology such as aerospace structures, wind-energy turbine blades, and snow skis, etc.	National Science Foundation	LEANG,KAM K.		199,976	8/31/2012
Aerospace and Defense		UNR		CONTROLLABLE CMRD	Design, fabricate, and test full-scale prototypes of compressible magneto-rheological (CMR) fluid spring-damper device for potential use in unmanned, tracked, and wheeled vehicles.	Department of Defense, Department of the Army/Advance Materials & Devices Incorporated	GORDANINEJAD,FARAMARZ		411,016	12/31/2012
Aerospace and Defense		UNR		AUTONOMOUS SYSTEMS/ROBOTIC APP	Design an effective and robust system for reliable detection of intended activities for autonomous systems in both naval and service robotics applications.	Department of Defense, Department of the Navy	NICOLESCU,MONICA N.		543,280	7/31/2012
Aerospace and Defense		UNR		ARRA: CYBER-PHYSICAL SYSTEMS	Study simulation-based planning and coordination algorithms with real-time and asynchronous communication constraints in the context of cyber-physical systems.	National Science Foundation	BEKRIS,KONSTANTINOS		599,970	8/31/2013
Aerospace and Defense		UNR		AIR SUP-INTELLIGENT AGGRESSORS	Investigate, develop, and prototype artificially intelligent controllers for naval subsurface and air assists to provide better training for tactical decision making.	Department of Defense, Department of the Navy	LOUIS,SUSHIL		499,963	10/30/2012
Aerospace and Defense		UNR		INTELLIGENT ROBOTIC DECISIONS	Advance NASA's computer vision, robotics, and visualization technologies, in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames for improving planetary exploration and discovery.	Department of Defense, Department of the Navy	HARRIS,FREDERICK C.		555,953	9/30/2012
Aerospace and Defense		UNR		NASA EPSCOR: COMPUTER VISION	Contribute to: 1. NASA's development a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration), and 2. technology development priorities of the Science Mission Directorate (e.g., Robotic Lunar Exploration Program).	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	BEBIS,GEORGE		354,212	8/31/2014
Aerospace and Defense		UNR		SPACE GRANT CONSORT-SCHOLAR 10	Scholarships and Fellowships from NASA for NV Space Grant students at the University of Nevada, Reno.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	COLLOPY,MICHAEL W.		73,333	5/5/2014
Aerospace and Defense		UNR		NASA EPSCOR: RID-SCHOLARSHIPS	Nevada NASA EPSCoR Scholarships for the Undergraduate Research and Technology Development Researcher Scholarship Award Program.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	COLLOPY,MICHAEL W.		24,000	5/31/2012
Aerospace and Defense		UNR		GLOBAL GEODETIC STRAIN RATE	Develop a global database of GPS velocities to model the global strain rate field for the purpose of seismic hazard assessment.	Global Earthquake Model Foundation	KREEMER,CORNELIS W.		144,900	8/31/2012
Aerospace and Defense		UNR		EMITTER MODELING RSRCH INITIAT	Derive analytical models for near fields on microwave emitters.	General Electric Energy Corporation	CHATTERJEE,INDIRA		46,950	5/31/2012
Aerospace and Defense		UNR		ADVANCED X-RAY TOMOGRAPHY	Apply advanced x-ray spectroscopy and polychromatic tomography methods to study the spatial structure of ICF implosion cores.	Department of Energy/Los Alamos National Laboratory	MANCINI,ROBERTO C.		175,000	9/30/2012
Aerospace and Defense		UNR		SPEC PROJ EPSCOR: COMPUTER VIS	Advance NASA's computer vision, robotics, and visualization technologies, in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames for improving planetary exploration and discovery.	Nevada System of Higher Education, Chancellor's Office	BEBIS,GEORGE		70,813	5/13/2013
Aerospace and Defense		UNR		SPEC PROJ EPSCOR: SCHOLARSHIPS	Support mentoring and experiential learning of graduate students to collaborative research projects with NASA EPSCOR.	Nevada System of Higher Education, Chancellor's Office	BEKRIS,KONSTANTINOS		2,000	5/31/2012
Mining, Materials and Manufacturing	Tourism, Gaming, and Entertainment	UNR		MINING COOP FUND RESEARCH	Mineral resource investigations, including base and precious metals and industrial minerals; geologic mapping; neotectonic investigations, including geodetic monitoring using global positioning system instrumentation; subsidence investigations; water resource investigations; geographic information systems; geographic names research investigations of radon hazards and investigations of landslide and debris-flow hazards.	Mining Co-op Foundation	PRICE,JONATHAN G.		1,654,730	6/30/2014
Mining, Materials and Manufacturing		UNR		FLUID PATHWAYS/METAL TRANSPORT	Integrate a comprehensive, field-based, detailed three-dimensional model of the geology of a major Carlin-type gold district with state of the art microanalyses of ore pyrite and alteration minerals (quartz), to determine the source of auriferous hydrothermal fluids, the pathways through which the fluids migrated, and how the fluids evolved chemically during transport to, deposition in, and egress from ore zones.	National Science Foundation	MUNTEAN,JOHN L.		162,544	6/30/2012
Mining, Materials and Manufacturing		UNR		MINERAL DEPOSITS IN NYE CNTY	Build the infrastructure necessary for the mineral assessment that is dependent on funding of additional phases of the project.	Department of the Interior, Geological Survey	MUNTEAN,JOHN L.		363,112	5/31/2012
Mining, Materials and Manufacturing		UNR		ARRA: TASK 1-LIDAR DATA ANLYS	Collect and library data on the occurrence of Quaternary faults, geochemical and temperature anomalies in a GIS database for construction of models for resource potential within the NAS Fallon land.	Department of Defense, Department of the Navy/SEI Group Incorporated	BELL,JOHN W., CALVIN, WENDY		424,775	5/31/2012
Mining, Materials and Manufacturing		UNR		USGS COOPERATIVE AGREEMENT	Assist with laboratory Experiments on Chalcopyrite Dissolution Kinetics.	Department of the Interior, Geological Survey	THOMPSON,JEFFREY S.		257,191	2/28/2014
Mining, Materials and Manufacturing		UNR		MICRO-MECHANISMS & MULTI-SCALE	Explore the fundamental microscopic mechanisms of the cyclic plastic deformation and fatigue failure of the magnesium single crystals through the collaboration of researchers from materials science and applied solid mechanics.	Department of Energy	LI,QIZHEN, JIANG, YANYAO	LLEWELLYN DAVIS	713,000	3/14/2012
Mining, Materials and Manufacturing		UNR		ARRA: SINGLE CRYSTAL NIOBIUM	Scale up a process for producing large diameter niobium (Nb) single crystal tubes for particle accelerator cavities.	Department of Energy	MURPHY,JAMES E.		200,000	5/31/2012
Mining, Materials and Manufacturing		UNR	UNIVERSITY OF UTAH	INFRASTRUCT-ELECTRON MICROSCOP	Infrastructure Support for Electron Microscope for Analysis of Irradiated Materials.	Department of Energy	CHIDAMBARAM, DEVICHARAN		248,500	8/31/2012
Mining, Materials and Manufacturing		UNR		CAREER: SYNTHESIS, MICROSTRUCT	Establish an integral research and education/outreach program to synthesize magnesium-based nanoporous materials and explore their fundamental relations among processing, microstructure and properties.	National Science Foundation	LI,QIZHEN		113,824	8/31/2016
Mining, Materials and Manufacturing		UNR		FACULTY DEVEL PROG/NUCLEAR MAT	Increase the number of Americans graduating with a theoretical understanding and research knowledge of Nuclear Materials specialization.	Nuclear Regulatory Council	CHIDAMBARAM, DEVICHARAN		449,393	8/3/2014
Mining, Materials and Manufacturing		UNR		SINGLE CRYSTAL NIOBIUM	Scale up a process for producing large diameter niobium (Nb) single crystal tubes for particle accelerator cavities.	Department of Energy	MURPHY,JAMES E.		200,000	5/31/2012

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*Industry Sectors identified in the State's Economic Development Plan, *Moving Nevada Forward: A Plan for Excellence in Economic Development, 2012-2014*: 1) Tourism, Gaming and Entertainment; 2) Clean Energy and Water Technologies; 3) Health and Medical Services; 4) Aerospace and Defense; 5) Mining, Materials and Manufacturing; 6) Business IT Ecosystems; 7) Logistics and Operations (including transportation); and 8) Additional Promising Possibilities that include Agriculture and Financial Enterprises.

PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Mining, Materials and Manufacturing		UNR		NUCLEAR ENERGY/SCI INFRASTRUCT	Establish a high-temperature and high-pressure materials testing (simultaneous mechanical and corrosion) facility at University of Nevada Reno.	Department of Energy	CHIDAMBARAM, DEVICHARAN		298,128	12/18/2012
Mining, Materials and Manufacturing		UNR		ADV HEAT/MASS EXCHANGER: P2	Design, develop and characterize unique coating materials and surface configurations capable of accommodating a 10-inch increase in exchanger performance via phase change processes (boiling, condensation, etc.), convective heat transfer, and the performance of mass exchange membranes (water treatment).	Department of Energy	CHILDRESS,AMY E., LACA, PAUL, GREINER, MILES, KIM, KWANG J., PARK, CHANWOO		1,200,000	9/17/2012
Mining, Materials and Manufacturing		UNR		NANO-STRUCTURE COATS FOR HIGH	Characterize the high temperature nano-structured coating for application in industrial heat exchangers.	Department of Energy/NEI Corporation	KIM,KWANG J.		141,880	3/31/2012
Mining, Materials and Manufacturing		UNR		LAUNCH TUBE CLOSURE SYSTEMS	Evaluate reusable design concepts that would eliminate pyrotechnic or fly through rupture of the forward closure systems, thus eliminate conditions that create debris.	Department of Defense, Department of the Army/Advance Materials & Devices Incorporated	GORDANINEJAD, FARAMARZ		493,026	12/31/2012
Mining, Materials and Manufacturing		UNR	U of Florida	MULTIFUNCTIONAL SPM PROBE	Address the critical issues of throughput, repeatability, scalability, and limited functionality of probe-based nanofabrication by designing, fabricating, and testing a novel active cantilever probe with an automated ability to interchange probe tips.	National Science Foundation	LEANG,KAM K.		252,372	8/31/2012
Mining, Materials and Manufacturing		UNR		A NEW PASSIVE-ACTIVE ISOLATOR	Synthesize and study novel field-controllable magnetic foam (MF) materials with tunable mechanical and acoustical characteristics.	National Science Foundation	GORDANINEJAD, FARAMARZ		200,000	7/31/2012
Mining, Materials and Manufacturing		UNR		NUCLEAR FELLOWSHIP PROGRAM	Increase the number and quality of students receiving MS and Ph.D. degrees at UNR who are able to support the design, construction, operation, and regulation of nuclear facilities, and the safe handling of nuclear materials.	Nuclear Regulatory Council	GREINER,MILES		399,997	4/30/2014
Mining, Materials and Manufacturing		UNR		CHIRAL OBJECTS	Focus on chiral effects in microbial locomotion and the dependence of separation inducing chiral drift on particle geometry.	National Science Foundation	FU,HENRY C.		21,617	9/30/2013
Mining, Materials and Manufacturing		UNR		REU: ACTIVE/PASSIVE ISOLATOR	Recruit one undergraduate student in mechanical engineering to build a prototype, set-up experiments, perform data collection and interpretation.	National Science Foundation	GORDANINEJAD, FARAMARZ		6,000	7/31/2012
Mining, Materials and Manufacturing		UNR		EAGER:CHIRAL SEPARATION/MICRO-	Model effects of variation of particle geometry on chiral separation in shear flows at colloidal and molecular scales.	National Science Foundation	FU,HENRY C.		72,944	9/30/2013
Mining, Materials and Manufacturing		UNR		MR: NANOMECHANICAL TESTER	Investigate the multiaxial cyclic deformation and fatigue of magnesium and its alloys and to theoretically develop the associated constitutive models and multiaxial fatigue criteria to simulate cyclic deformation and predict fatigue life and cracking behavior.	National Science Foundation	JIANG,YANYAO		248,725	8/31/2014
Mining, Materials and Manufacturing		UNR		HCC: SMALL: ENGAGE BLIND USERS	Investigate how virtual worlds can be made accessible to screen reader users.	National Science Foundation	FOLMER,EELKE		0	7/31/2013
Mining, Materials and Manufacturing		UNR		NDOT MAINTENANCE CUST SATISFAC	Survey focus groups for enhancing NDOT Maintenance Customer Satisfaction.	Department of Transportation, National Highway Traffic Safety Administration/State of Nevada, Department of Public Safety, Office of Traffic Safety	DAHIR,VERONICA G.		47,158	3/15/2012
Mining, Materials and Manufacturing		UNR		MINIMIZING MERCURY POLLUTION	Study of the elution of gold, silver and mercury and their interactions to minimize the amount of mercury emitted to the environment.	Barrick GoldStrike Mines	FUERSTENAU,MAURICE C.		98,149	6/30/2012
Mining, Materials and Manufacturing		UNR		HAULAGE OP ROUND MOUNTAIN MINE	Build and develop a simulation and animation model for the Kinross Gold Corp's Round Mountain Mine in Nevada.	Kinross Gold Corporation	TAYLOR,DANNY L.		65,091	12/31/2012
Mining, Materials and Manufacturing		UNR		JERRITT CANYON DISTRICT	Assist in the compilation of a geologic map of the entire Jerritt Canyon mining district at a scale of 1:24,000.	Queenstake Resources USA INC	MUNTEAN,JOHN L.		88,000	12/31/2012
Mining, Materials and Manufacturing		UNR		SOUTH EUREKA MAPPING PROJECT	Understand the geologic structure of the mining area to identify potential new exploration targets in the South Eureka district.	Timberline Resources Corp	LONG,SEAN P.		20,000	4/30/2013
Mining, Materials and Manufacturing		UNR		SNOWSTORM	Develop tools to assist exploration for Eocene-age Carlin-type, gold deposits in Paleozoic rocks underneath post-mineral volcanic and sedimentary cover of mainly Miocene age.	Snowstorm Exploration LLC	MUNTEAN,JOHN L.		73,272	12/31/2012
Mining, Materials and Manufacturing		UNR		NDOM SUPPORT FOR MIN-ENG PROG	Support the mineral exploration, mining and extractive mineral processing programs that have received budgetary cuts.	State of Nevada, Commission on Mineral Resources	THOMPSON,JEFFREY S.		1,195,278	6/30/2012
Mining, Materials and Manufacturing		UNR		ECON IMP/COEUR ROCHESTER MINE	Estimate the economic, employment, and income impacts to Pershing and Humboldt counties from reopening of the Coeur Rochester Mine.	Coeur Rochester Incorporated	HARRIS,THOMAS R.		15,000	3/1/2012
Mining, Materials and Manufacturing		UNR		PAVEMENT TECHNOLOGY	Conduct research activities into the materials, design, and construction of pavements to improve the service of roads in the Truckee Meadows region.	Washoe County Regional Transportation Commission	SEBAALY, PETER E.		150,000	6/30/2013
Mining, Materials and Manufacturing		UNR		CONTROLLED DROPWISE CONDENSATI	Develop a durable superhydrophobic condensing surface that dramatically increases the heat transfer efficiency of industrial steam heat condensers.	Korean Institute of Energy Research	KIM,KWANG J.		67,209	5/31/2012
Mining, Materials and Manufacturing		UNR		WEAK ROCK MASS IN NV GOLD MINE	Development of a support design methodology and design guidelines for entry-type excavations in for weak rock mass in Nevada gold mines.	Department of Health & Human Services, Centers for Disease Control & Prevention	KALLU,RAJAGOPALA		250,000	8/31/2012
Mining, Materials and Manufacturing		UNR		DESIGN GRIPPING FIXTURES	Pursue an integration of the strengths of the expertise in mechanical experiments for mechanical properties of materials using different types of materials testers at the University of Nevada, Reno and the unique neutron diffraction facilities for microscopic characterizations and fundamental understanding of material deformation and failure.	Department of Energy/University of Tennessee, Battelle LLC	JIANG,YANYAO		10,928	12/31/2012
Mining, Materials and Manufacturing		UNR		CONSORTIUM OF COMPANIES	Develop a UNR technology center for the pavement protective coating industry and the various agencies that use pavement coating.	Consortium Agencies	SEBAALY,PETER E.		295,125	7/5/2012
Business IT Ecosystems		UNR		BALLOONING SHORT COURSE	Developed and conduct programs to inform and inspire teachers to trans excitement and knowledge onto their students.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	LACOMBE,JEFFREY C.		54,365	8/15/2012
Business IT Ecosystems		UNR		NUCLEAR ENG & COMBUSTION COURS	Develop two new courses critical to the regulatory mission of the NRC: "Nuclear Materials Engineering" and "Introduction to Combustion."	Nuclear Regulatory Council	CHIDAMBARAM, DEVICHARAN		82,916	8/31/2013

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Business IT Ecosystems		UNR	CUREE	NEESR-GC: SEISMIC PERFORMANCE	Enhance significantly the seismic resilience of building and communities, by providing practicing engineers and architects with verified tools and guidelines for the understanding, prediction and improvement of the seismic response for the ceiling-piping-partition nonstructural system.	National Science Foundation	MARAGAKIS,EMMANUEL A.		3,821,987	8/31/2012
Business IT Ecosystems		UNR		LARGE-SCALE STRUCTURES LAB	Expand the Large-Scale Structures Laboratory at UNR, which will be used to house four earthquake shake tables, work rooms, offices for graduate students and visiting scholars, and an interactive auditorium.	Department of Energy	BUCKLE,IAN G.		1,967,992	3/29/2012
Business IT Ecosystems		UNR		EXPANSION EARTHQUAKE FACILITY	Add approximately 22,000 sq. of laboratory, office, and auditorium space to the existing Large-Scale Structures Laboratory for expanding the earthquake engineering program at UNR.	Department of Commerce, National Institute of Standards & Technology	BUCKLE,IAN G.		12,221,796	10/31/2013
Business IT Ecosystems		UNR	UNLV; Black Eagle Consulting; Earth Reinforcement Testing Inc	CORROSION OF NV MSE WALLS, II	Create guidelines and procedures that will enable NDOT personnel to make decisions about the follow-up of activities relative to NDOT's MSE wall corrosion problem.	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	SIDDHARTHAN,RAJARATNAM		367,522	3/31/2013
Business IT Ecosystems		UNR		ARRA: SMART METER TESTING	Investigate the accuracy of a variety kW-Hour meters using a versatile calibrated device.	Department of Energy/Nevada Power Company	ETEZADI-AMOLI,MEHDI		222,570	12/31/2012
Business IT Ecosystems		UNR		NVREC WORKFORCE RE CERT PROG	Evaluate current smart meters for security vulnerabilities, implement prototype solutions to counter vulnerability and test modified prototype smart meters under simulated residential loads.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	ETEZADI-AMOLI,MEHDI, MARCHAND, ERIC A.		184,753	9/30/2012
Business IT Ecosystems		UNR		EPSCOR-TASK 3 INTEROPERABILITY	Provide support to consortia of EPSCoR jurisdictions to support innovation-enabling Cyber infrastructure of regional, thematic, or technological importance for the successful pursuit of significant consortium opportunities in science and engineering.	Department of Energy/Nevada System of Higher Education, Chancellor's Office	HARRIS,FREDERICK C.		554,001	8/31/2012
Business IT Ecosystems		UNR		INTERNET ANONYMIZERS	Provide to state and local law enforcement an expansion of their ability to respond to Internet investigations through the ability to identify anonymous users.	Department of Justice, National Institute of Justice/Vere Software	GUNES,MEHMET H.		107,792	6/30/2012
Business IT Ecosystems		UNR	UofUster;Sapienza Univ;Kingston Univ	SMART MONITORING	Develop a system that allows for robust and efficient coordination among robots, vision sensors and human guards in order to enhance surveillance in crowded environments such as airports, federal buildings, shopping malls and other public places.	Department of Homeland Security	NICOLESCU,MIRCEA		561,135	4/15/2013
Business IT Ecosystems		UNR		SEISMIC TESTING IBM PRODUCTS	Verify the attachment methods, structural and functional performance of the IBM corp.	International Business Machines Corporation	PEKCAN,GOKHAN		364,649	3/1/2012
Business IT Ecosystems		UNR		SPEC PROJ EPSCOR: RID U/G SCHO	Provide scholarships for participants to have costs offset for a K-12 STEM (Science, Technology, Engineering and Mathematics) training workshop.	Nevada System of Higher Education, Chancellor's Office	LACOMBE,JEFFREY C.		1,000	8/31/2012
Logistics and Operations		UNR		NDOT NIMO	Obtain real-time atmospheric and vehicle data and use the data to assess data quality, as well as use the data in an Maintenance and Decision Support System (MOSS) and a Maintenance Management System (MMS).	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	LACOMBE,JEFFREY C.	PABLO ABRAHAM RIVERA	213,792	9/30/2012
Logistics and Operations		UNR		PERFORMANCE OF... HMA MIXTURES	Monitor and evaluate the performance of the anti-strips additives for HMA (hot mix asphalt) mixtures test sections on a biennial basis through the conclusions of the research and note any significant differences.	Department of Transportation, Federal Highway Administration/South Dakota Department of Transportation	SEBAALY,PETER E.		25,000	5/31/2012
Logistics and Operations		UNR	Florida Int' Univ; UofCA Berkeley	NEESR-SG; SEISMIC PERFORMANCE	Conduct a comprehensive investigation of the seismic performance of a series of models of four-span large-scale bridge systems including the soil-structure interaction effects at the footing and the abutments.	National Science Foundation	SAIDI,MEHDI		2,030,000	10/31/2012
Logistics and Operations		UNR	UCREGENTS-UCLA; UNIV OF HOUSTON	NEESR-SG: BRIDGE COLUMNS	Develop a fundamental knowledge of the impact of combined actions on column performance and system response and to establish analysis and design procedures that include the impact.	National Science Foundation	SANDERS,DAVID H.		1,419,722	9/30/2012
Logistics and Operations		UNR		ASPHALT RESEARCH CONSORTIUM	Outline the hardware and software resources needed to design, implement, and maintain a database management system for the Asphalt Research Consortium (ARC).	Department of Transportation, Federal Highway Administration/Western Research Institute	SEBAALY,PETER E.	KAISER/REID	4,247,166	12/31/2013
Logistics and Operations		UNR	Reno Iron Works; UCSD; Seismic Systems; GP INDUSTRIES; IMAGE CAT INC; UC-IRVINE; SCOTT MEEK & SON CONCRETE INC	SEISMIC RESILIENCE OF HIGHWAY	Study the resilience of highway systems with a view to improving the performance of these systems subject to major earthquakes.	Department of Transportation, Federal Highway Administration	BUCKLE,IAN G., SAIDI, MEHDI, BUCKLE, IAN G.	RENO IRON WORKS; SCOTT MEEK & SON CONCRETE INC; BERGER ABAM INC	6,069,528	8/19/2014
Logistics and Operations		UNR	South Dakota School of Mines	WMA IN SOUTH DAKOTA	Evaluate the effectiveness of warm asphalt technologies under South Dakota's traffic and environmental conditions.	Department of Transportation, Federal Highway Administration/South Dakota Department of Transportation	SEBAALY,PETER E.		140,000	9/30/2012
Logistics and Operations		UNR		DIFF SOIL TYPES/MSE WALLS	Develop specifications and procedures that will enable NDOT (Nevada Department of Transportation) personnel to make recommendations for safety analysis of geosynthetic MSE (Mechanically Stabilized Earth) walls under Nevada conditions.	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	SIDDHARTHAN, RAJARATNAM		57,199	4/15/2012
Logistics and Operations		UNR		PWL SYSTEM/ASPHALT CONST	Develop a specification system based on statistical analyses of actual field measured data during the construction of asphalt pavements. Pay factors will access the appropriate bonuses and penalties based on actual materials properties of the constructed pavement.	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	SEBAALY,PETER E.		298,985	12/31/2013
Logistics and Operations		UNR	UCBerkeley; SUNY; UNIV OF WISCONSIN-GREEN BAY	NEESR-GC: TIPS-TOOLS TO FACILI	Create and promote tools that will facilitate adoption of isolation and protective systems during the earthquakes, which will provide the capability to control both structural and non-structural damage by simultaneously reducing accelerations and story drifts.	National Science Foundation	RYAN,KERI L.		621,870	9/30/2012

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Logistics and Operations		UNR		SIGNAL TIMING BASED ON TRAFFIC	Develop strategies for coordinating traffic signals under varying traffic demands and inclement weather conditions.	Department of Transportation, Research & Special Programs Administration/Nevada System of Higher Education, University of Nevada, Las Vegas	TIAN,ZONG		68,550	6/30/2012
Logistics and Operations		UNR		GAP DAMPER FOR BASE ISOLATION	Design, analyze and test a passive device to be used with a base isolation system that will control isolator displacement demands resulting from very rare earthquakes.	National Science Foundation	RYAN,KERI L.		194,994	6/30/2014
Logistics and Operations		UNR		NEESR-GC: TIPS-NIED	Create and promote tools that will facilitate adoption of isolation and protective systems during the earthquakes, which will provide the capability to control both structural and non-structural damage by simultaneously reducing accelerations and story drifts.	National Science Foundation	RYAN,KERI L.		223,273	9/30/2012
Logistics and Operations		UNR		NEESR-SG: BRIDGE COLUMNS REU	Study the impact of the different testing methods (Slow Circle, Hybrid Simulations and Shake Table) on performance.	National Science Foundation	SANDERS,DAVID H.		6,000	9/30/2012
Logistics and Operations		UNR	Hexcel Fyfe Co; Nitinol Dev; Dynamic Isolation Systems;FiberMatrix	SUSTAINABLE HIGHWAY BRIDGES	Develop novel bridge columns using advanced materials and details to resist extreme roads.	National Science Foundation	SAIDI,MEHDI		597,121	8/31/2014
Logistics and Operations		UNR		BADGE ON BOARD	The Badge On Board program has three objectives: First is to educate passenger vehicle drivers about safe driving near large trucks. Second is to enforce moving violations that occur around large trucks by both passenger vehicles and other large trucks. Third is to validate the effectiveness of the program through data collection and analysis.	Department of Transportation, Federal Motor Carrier Safety Administration/State of Nevada, Department of Public Safety, National Highway Patrol	TIAN,ZONG		99,900	8/31/2014
Logistics and Operations		UNR		TRAFFIC MICRO-SIMULATION MODEL	Provide technical support for Regulatory Transportation Commission on various traffic engineering studies.	Department of Transportation, National Highway Traffic Safety Administration/Regulatory Transportation Commission of Southern Nevada	TIAN,ZONG		80,000	6/30/2012
Logistics and Operations		UNR		GEOSYNTHETICS/PAVEMENT PERFORM	Evaluate the influence of geosynthetic in the base and subgrade layers on the performance of flexible and rigid pavements and their impact on the structural design of these pavements.	Department of Transportation, Federal Highway Administration/Texas A&M University	HAJJ,ELIE Y.		3,578	3/1/2014
Logistics and Operations		UNR		NDOT MDSS PHASE 2	Develop recommendations and formulate an implementation plan for a Maintenance Decision Support System (MOSS) for the Nevada Department of Transportation (NDOT).	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	WANG,ERIC L.		199,442	3/31/2013
Logistics and Operations		UNR		TRANSPORTATION FIRE ACCIDENT	Perform a complete technical analysis of a spent fuel transport package in a long-duration fire accident, specified by the NRC (National Research Council).	Nuclear Regulatory Council	GREINER,MILES	COMPUTATIONAL ENGINEERING/R NARAYANA	66,340	8/31/2012
Logistics and Operations		UNR		EXPECTANCY EFFECTS IN FDE	Investigate the existence and nature of expertise related to forensic document examination, the evaluation and interpretation of the salient features of signature specimens, and the relationship between social influences inherent in the context of forensic document examination (e.g. information about prior examination outcome) on the outcomes of document examination.	Department of Justice, National Institute of Justice/Kentucky State University	DAHIR,VERONICA G.		64,030	10/31/2012
Logistics and Operations		UNR		HISTORIC RES SURVEY E 4TH STR	A Planning Study centered on a modified survey of the 4th St./Prater Way corridor between Lake St. and El Rancho Dr. will be conducted and the findings reported to the Regional Transportation Commission for use in future planning efforts.	Washoe County Regional Transportation Commission	BASSETT,SCOTT D.		5,000	4/1/2012
Logistics and Operations		UNR		GALENA CREEK BRIDGE	Add a multiple accelerometers along the superstructure to measure the performance of the bridge over time due to day-to-day traffic.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	SANDERS,DAVID H.		307,586	12/31/2012
Logistics and Operations		UNR		HYBRID MEMBRANE DESALINATION	Evaluate the effect of sand additive on skid resistance of road sealer.	Colorado School of Mines	CHILDRESS,AMY E.		120,134	12/31/2012
Logistics and Operations		UNR		TRAINING AND R&D PROGRAM	Cooperative program of training and research and development between the Pavements/Materials Program and the Paramount Petroleum Co.	Paramount Petroleum Company	SEBAALY,PETER E.		250,000	6/30/2014
Logistics and Operations		UNR		LIVE LOAD EFFECT ON BRIDGES	Study the influence of live load on the seismic response of highway bridge.	California Department of Transportation	BUCKLE,IAN G.		310,875	10/31/2012
Logistics and Operations		UNR		UNBONDED PRESTRESSED COLUMNS	Test two columns to develop details for accelerated bridge construction using unbounded tendons.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	SANDERS,DAVID H.		198,166	8/31/2012
Logistics and Operations		UNR		GUIDELINES/ROUNDBOUTS IN NV	Study the safety aspects of roundabouts and develop guidelines.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	TIAN,ZONG		100,000	6/30/2012
Logistics and Operations		UNR		POST-EARTHQUAKE BRIDGE DAMAGE	Develop a decision tree for rapid assessment and repair of earthquake-damaged concrete bridges.	California Department of Transportation	SAIDI,MEHDI		151,952	6/30/2012
Logistics and Operations		UNR	UNLV; UC-SAN DIEGO	MARKED & UNMARKED CROSSWALKS	Study the safety aspects of marked and unmarked crosswalks and develop guidelines.	State of Nevada/Nevada System of Higher Education, University of Nevada,	TIAN,ZONG		160,000	6/30/2012
Logistics and Operations		UNR		ACCELERATED BRIDGE CONSTRUCTIO	Develop connections for precast bridge columns built in areas of high seismicity.	California Department of Transportation	SAIDI,MEHDI		307,815	12/31/2012
Logistics and Operations		UNR		TRAFFIC SIGNAL OPERATIONS	Assist Iteris in the field fine-tuning of proposed coordination timings at approximately 150 signalized intersections in Washoe County.	Iteris Incorporated	TIAN,ZONG		35,200	4/16/2012
Logistics and Operations		UNR		SIGNAL TIMING BASED ON TRAFFIC	Develop strategies for coordinating traffic signals under varying traffic demands and inclement weather conditions.	State of Nevada, Department of Transportation/Nevada System of Higher Education	TIAN,ZONG		61,695	6/30/2012
Logistics and Operations		UNR	Univ of Houston; Univ of Missouri	FRACTURED COLUMN REPAIR	Develop methods to repair and restore earthquake damaged bridge columns with fractured bars.	California Department of Transportation	SAIDI,MEHDI		126,742	5/31/2013

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Logistics and Operations		UNR		SEISMIC FRAGILITY OF BRIDGES	Calibration of Probabilistic Damage Control Approach (PDCA) for Seismic Design of Bridges.	California Department of Transportation	SAIDI,MEHDI		142,316	5/31/2013
Logistics and Operations		UNR		SEISMIC STUDIES OF COUPLERS	Test and analyze the seismic response of routed couplers used in bridge columns.	California Department of Transportation	SAIDI,MEHDI		100,000	5/31/2012
Logistics and Operations		UNR		PIPE PIN HINGES AT COLUMN BASE	Calibration of Probabilistic Damage Control Approach (PDCA) for Seismic Design of Bridges.	California Department of Transportation	SAIDI,MEHDI		187,883	5/31/2013
Logistics and Operations		UNR		BRIDGE DEFLECTION	Study bridge deflection variation starting from the time of construction and develop/verify methods to estimate the deflection over time.	California Department of Transportation	SAIDI,MEHDI		300,000	6/1/2014
Logistics and Operations		UNR		PAVEMENT DESIGN & MAT'L RSRCH	Identify the most effective pavement design and materials technologies techniques for pavements throughout Nevada.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	SEBAALY,PETER E.		150,000	6/30/2013
Logistics and Operations		UNR		PAVEMENT PREVENTIVE MAINT	Identify the most effective preventive maintenance techniques for pavements throughout Nevada.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	SEBAALY,PETER E.		175,000	6/30/2013
Logistics and Operations		UNR		RTC TRAFFIC	Provide technical support for RTC on various traffic engineering studies.	Washoe County Regional Transportation Commission	TIAN,ZONG		150,000	6/30/2013
Logistics and Operations		UNR		TESTING OF ISOLATED STRUCTURE	Assemble and test a 5-story moment frame building on elastomeric isolation bearing under large ground motions at the E-Defense shake table.	Nuclear Regulatory Council	RYAN,KERI L.	RONALD I MAYES	155,471	8/29/2012
Logistics and Operations		UNR		NIED-TESTING ISOLATED STRUCTUR	Assemble and test a 5-story moment frame building on elastomeric isolation bearing under large ground motions at the E-Defense shake table.	Nuclear Regulatory Council	RYAN,KERI L.		124,992	8/29/2012
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-11	Provide media relations support, public outreach, event planning and conference promotion and outreach for the overall Walker Lake Research program.	Department of the Interior, Bureau of Reclamation	TORS,JANE F.		399,112	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-12	Support a legal review team's efforts in evaluating potential water rights acquisitions under consideration by the Walker Lake program's acquisition team.	Department of the Interior, Bureau of Reclamation	RICHARDSON,JAMES T.		460,448	3/15/2016
Agriculture/Financial Enterprises		UNR		GBCESU: FUEL AREAS/KLAMATH	Archaeological survey of fuel management project areas, managing and processing GPS data collecting during field surveys.	Department of the Interior, National Park Service	HARDESTY,DONALD L.		37,784	2/28/2015
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-4A	Identify the economic potential and cultural practices necessary for low-water-use crops with the aim of minimizing water use, soil erosion and evaporation from soil surfaces. Evaluate methods to re-establish desirable vegetation in areas affected by changing agricultural practices and to anticipate vegetation responses under scenarios identified through modeling efforts.	Department of the Interior, Bureau of Reclamation	LEGER,ELIZABETH A.		583,755	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-2B	Develop a geographic information systems (GIS) framework for linking water rights with water distribution networks and points of diversion for the Walker Basin for use to assess how water and land acquisitions will affect the basin system. he Walker River and its tributaries.	Department of the Interior, Bureau of Reclamation	BASSETT,SCOTT D.		65,121	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER BASIN II ALT AG #4	Establish empirical relationships between yield, environmental temperature, water use efficiencies, soil moisture content and irrigation treatment to elucidate regional ecological mechanisms and develop numerical models for optimizing crop selection, water delivery and irrigation scheduling.	Department of the Interior/National Fish & Wildlife Foundation	TYLER,SCOTT W.		220,488	12/31/2013
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-8	Determine the most economically effective use of water on agricultural lands and provide producers with an estimate of the potential amount of water rights they may be able to offer to the market for lease or sale.	Department of the Interior, Bureau of Reclamation	CURTIS,KYNDA R.		347,099	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-3	Provide an overview of the political and historical context in which the acquisition of land and associated water rights for ecosystem restoration in the Walker River system occurs.	Department of the Interior, Bureau of Reclamation	WILDS,LEAH J.		162,507	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-1	Estimate the economic impacts of acquisition of water rights and changes in agricultural production and land use. Also, formulate economic development actions to mitigate the projected economic and fiscal dislocations.	Department of the Interior, Bureau of Reclamation	MALES,SAMUEL		222,538	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 3	Fund Western Development and Storage, LLC to provide independent, objective advice to NSHE on the acquisition of land and water, and water in the Walker River Basin, Nevada.	Department of the Interior, Bureau of Reclamation	COLLOPY,MICHAEL W.		3,248,504	3/15/2016
Agriculture/Financial Enterprises		UNR	NRDC; Rural NV Devel Corp	WALKER BASIN II ECON DEV #1	Focus on economic development to enhance the transition to alternative crops. Develop Mission Statement, Guidelines and Procedures for Resource Pool. Establish a "foundation" for broad-based economic development efforts within the Walker Basin and economic development support through training and One-on-One business counseling.	Department of the Interior/National Fish & Wildlife Foundation	BARTHOLET,RICHARD D.		482,493	12/31/2013
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-7B	Develop a set of recommendations to minimize further sediment and salt loading to Walker Lake and degradation to the lower Walker River under increased water flows. These recommendations will be made available to land and water managers to assess potential impacts resulting from variations in flow, water quality and channel geometry on the transport of sediments and on the flow capacity of the Walker River.	Department of the Interior, Bureau of Reclamation	HOUSE,PETER K.		18,494	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER LAKE MASTER AGREEMENT	Study of desert island lakes as part of the Walker Lake Research Project.	Department of the Interior, Bureau of Reclamation	COLLOPY,MICHAEL W.		0	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-10	Provide administrative and budgetary support to the Walker Lake Research program, and support development and maintenance of the program's website and outreach programs.	Department of the Interior, Bureau of Reclamation	COLLOPY,MICHAEL W.		5,753,919	3/15/2016
Agriculture/Financial Enterprises		UNR		WALKER LAKE-TASK 2-2	Develop a decision-support tool to evaluate the effectiveness of proposed acquisitions of water rights from willing sellers to increase water delivery to Walker Lake.	Department of the Interior, Bureau of Reclamation	TYLER,SCOTT W.		555,787	3/15/2016
Agriculture/Financial Enterprises		UNR	DRI	WALKER BASIN II PROJ ADMIN	Provide administrative and budgetary support to the Walker Basin Research program, as well as support for development and maintenance of the program's website and outreach programs.	Department of the Interior/National Fish & Wildlife Foundation	COLLOPY,MICHAEL W.		2,114,257	12/31/2013

MAPPING OF UNIVERSITY OF NEVADA, RENO SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*

UNR - UNIVERSITY OF NEVADA, RENO

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-5	Assess soil and vegetation responses to changes in water application and use, assess impacts of changes in water table, wind erosion, nutrient cycling, and salt accumulation and provide information to aid managers in the preservation of air and water quality adjacent to and within waterways and storage sheds.	Department of the Interior, Bureau of Reclamation	MILLER,WATKINS W.		902,901	3/15/2016
Agriculture/ Financial Enterprises		UNR		REESTABLISHING PLANT DIVERSITY	Improve crested wheatgrass control methods, seed mix selection, seedling technology and equipment, and monitoring methods.	Department of Agriculture, Forest Service	MCADOO,JAMES K.		112,442	6/30/2014
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ALT AG #3	Quantify actual environmental temperature and soil moisture levels for selected high yield crops using novel technological methods to determine inter-annual crop water use efficiencies as a function of irrigation level.	Department of the Interior/National Fish & Wildlife Foundation	DAVISON,JASON C.	HENDRICK UPHOLSTERY	170,386	12/31/2013
Agriculture/ Financial Enterprises		UNR		ENVIRO IMPACTS OF CONSERVATION	Produce national and regional assessments of environmental benefits of conservation programs to support policy decision and program implementation on crop and grazing lands by the Natural Resources Conservation Service (NRCS).	Department of Agriculture, Agricultural Research Service	NARAYANAN,RANGESAN		210,000	8/30/2012
Agriculture/ Financial Enterprises		UNR	Nat'l Ctr for Food & Ag Policy	TURKMENISTAN EXCHANGE PROGRAM	Fund Turkmenistan agricultural economists to visit UNR for training in Western-style concepts and for UNR faculty to visit Turkmenistan in preparation of the agricultural economists. In addition, high officials from Turkmenistan will visit UNR and Washington, DC.	Department of Agriculture, Foreign Agricultural Service	PARDINI,RONALD S.		165,974	8/19/2013
Agriculture/ Financial Enterprises		UNR		CA2+ PUMPS/PLANT POLLEN GROWTH	Determine the developmental defects that account for the partial sterility on aca9(-/-) plants. Determine the regulatory features of ACA9 that are critical to its function in fertilization. Identify intragenic and extragenic mutations that modify the functions of ACA9.	Department of Health & Human Services, National Institutes of Health, National Institute of General Medical Sciences	HARPER,JEFFREY F.		1,081,565	8/31/2012
Agriculture/ Financial Enterprises		UNR		GEPR:FUNCTIONAL GENOMICS...	Identify mechanisms regulating bud endodormancy using a well-characterized grape genetic system and a functional genomics approach using transcript (Vitis GeneChip), protein (2-D PAGE), and metabolite (GC-MS and LD-MS) profiling.	National Science Foundation/South Dakota State University	CRAMER,GRANT R.		892,662	7/31/2012
Agriculture/ Financial Enterprises		UNR		RCN: GRAPE FUNCTIONAL GENOMICS	Develop functional genomic resources in grape to improve production efficiency and quality, to study developmental processes and environmental impacts on grape and wine quality and the associated health benefits of consuming grape berries and wine products.	National Science Foundation	CRAMER,GRANT R.	MARIO PEZZOTTI	517,220	8/31/2013
Agriculture/ Financial Enterprises		UNR		POLYMER-PROTEIN IN RUBBER LTX	Advance the fundamental knowledge regarding structure/property relationships in natural rubber, especially the role of naturally-occurring, non-rubber constituents in creating and controlling the nanostructured features that are believed to be responsible for the unique properties of natural rubber derived from Hevea brasiliensis.	Department of Agriculture, Agricultural Research Service	SHINTANI,DAVID K.		85,000	9/15/2012
Agriculture/ Financial Enterprises				WALKER LAKE-TASK 2-9	Estimate the economic impacts of the acquisition of water rights and changes in agricultural production and land use. Formulate economic development actions to mitigate the projected economic and fiscal dislocations that result in sustainable economic development actions and related public policy alternatives.	Department of the Interior, Bureau of Reclamation	MALES,SAMUEL		259,105	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-14	Establish and promote Walker River Watershed Workdays within local communities and in Lyon, Mineral, Walker River Tribal and Mono county schools system.	Department of the Interior, Bureau of Reclamation	COLLOPY,MICHAEL W.		66,541	3/15/2016
Agriculture/ Financial Enterprises		UNR		RANGELAND FIRES/GRAZING SYS	Model estimated costs of current post-fire survival strategies and alternative management strategies for fire reduction and range improvement will be verified with rancher survey data. With these models, ranch level responses to rangeland fires and rangeland fire suppression can be transmitted to regional economic impacts.	Department of Agriculture, National Institute of Food & Agriculture	HARRIS,THOMAS R.		31,410	7/14/2012
Agriculture/ Financial Enterprises		UNR	U of MO, Columbia	FOOD & AG POLICY RESEARCH INST	Nevada is a partner with the University of Missouri & Iowa State University in the development & operation of a large scale international policy modeling system focusing on agricultural commodities.	Department of Agriculture, National Institute of Food & Agriculture	HARRIS,THOMAS R.		316,427	8/31/2012
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ECON DEV #2	Focus on economic development that will enhance the transition to alternative crops. Establish a "foundation" for broad-based economic development efforts within the Walker Basin and economic development support through training and One-on-One business counseling.	Department of the Interior/National Fish & Wildlife Foundation	HARRIS,THOMAS R.	BEHAVIOR RESEARCH CENTER	55,431	12/31/2013
Agriculture/ Financial Enterprises		UNR		RANGELAND FIRES/GRAZING SYS	Model estimated costs of current post-fire survival strategies and alternative management strategies for fire reduction and range improvement will be verified with rancher survey data. With these models, ranch level responses to rangeland fires and rangeland fire suppression can be transmitted to regional economic impacts.	Department of Agriculture, National Institute of Food & Agriculture	HARRIS,THOMAS R.		30,710	6/30/2012
Agriculture/ Financial Enterprises		UNR		BIOSECURITY/NV CATTLE RANCHERS	Derive factors to increase adoption of the trichomoniasis vaccine or alternative public land management scenarios to control trichomoniasis. Results of the representative ranch simulation model will provide information on potential adoption by public range producers both under average and less favorable conditions.	Department of Agriculture, National Institute of Food & Agriculture	HARRIS,THOMAS R.		45,253	6/30/2012
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-4B	Identify the economic potential and cultural practices necessary for low-water-use crops with the aim of minimizing water use, soil erosion and evaporation from soil surfaces. Evaluate methods to re-establish desirable vegetation in areas affected by changing agricultural practices and to anticipate vegetation responses under scenarios identified through modeling efforts.	Department of the Interior, Bureau of Reclamation	DAVISON,JASON C.		277,754	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-6	Evaluate and establish a benchmark for the environmental and ecological health of Walker Lake and Walker River. Decision tools will be developed to analyze the efficacy of different water acquisitions for improving future ecological integrity of Walker Lake and Walker River.	Department of the Interior, Bureau of Reclamation	CHANDRA,SUDEEP		472,187	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-7A	Develop a set of recommendations for land and water managers to minimize further sediment and salt loading to Walker Lake and degradation to the lower Walker River and assess potential impacts resulting from variations in flow, water quality and channel geometry.	Department of the Interior, Bureau of Reclamation	DENNETT,KEITH E.		193,014	3/15/2016
Agriculture/ Financial Enterprises		UNR		WATER & NOTROGEN/CHEATGRASS	Focus on the competitive ability of native species against cheat grass and investigate if the differences in competitive ability among different native plants are related to differences in the ability of the natives to acquire water or nitrogen from the soil.	Department of Agriculture, National Institute of Food & Agriculture	NOWAK,ROBERT S.		46,933	7/14/2012
Agriculture/ Financial Enterprises		UNR		WILDLIFE INDICATORS/LIVESTOCK	Understand ecological and biological factors affecting wildlife and livestock in this region and to determine if the source is toxicity of heavy metals possibly from past mining in the area, some ecosystem level change, such as acidification, that may be creating a deficiency in trace minerals in soils, or a pathogen that may be causing deleterious effects on wildlife in the area.	Department of Agriculture, National Institute of Food & Agriculture	STEWART,KELLEY M.		149,811	12/31/2012
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ALT AG #1	Quantify, under a range of irrigation scenarios, the above ground biomass and grain yields of candidate species for use in arid environments.	Department of the Interior/National Fish & Wildlife Foundation	MILLER,WATKINS W.		253,488	12/31/2013

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ALT AG #2	Implement new studies on seeding plants directly into existing alfalfa fields for purposes of land revegetation.	Department of the Interior/National Fish & Wildlife Foundation	LEGER,ELIZABETH A.		143,138	12/31/2013
Agriculture/ Financial Enterprises		UNR		SHRUBSTEP VEGETATION STRUCTURE	Determine the relationship between vegetation variables near Sage Grouse nests and the success of those nests to ensure that management of habitat is appropriate for Sage Grouse conservation in Nevada, thereby improving one of the criteria land managers use for grazing management.	Department of Agriculture, National Institute of Food & Agriculture	SEDINGER,JAMES S.		49,520	6/30/2012
Agriculture/ Financial Enterprises		UNR		CHEATGRASS INVADED SYSTEMS	Measure seedling establishment of four additional native perennial grass species and address whether these species are evolving	Department of Agriculture, National Institute of Food & Agriculture	LEGER,ELIZABETH A.		58,564	6/30/2012
Agriculture/ Financial Enterprises		UNR		EFFECT OF GRAZING/MODOC PLAT	Provide essential monitoring information to inform grazing management of O. tenuis, and to further elucidate the complex interactions among climate change, grazing, and hydroecology of vernal pool plant communities on the Modoc Plateau.	Department of Agriculture, Forest Service	WEISBERG,PETER J.		51,562	6/30/2012
Agriculture/ Financial Enterprises		UNR		CHEATGRASS DIE-OFFS	Mark areas of current and historical cheat grass die offs, and investigate causes and consequences of these die offs in the Great Basin.	Department of Agriculture, Forest Service	LEGER,ELIZABETH A., WEISBERG, PETER J.		106,444	12/15/2015
Agriculture/ Financial Enterprises		UNR		CHEATGRASS DOMINATED SITES	Investigate the efficacy of reducing cheat grass fuel load carryover using fall sequenced livestock grazing (cattle and sheep). Investigate how fall cattle grazing and subsequent spring grazing with sheep, may affect perennial plant species that occur within cheat grass dominated areas. Also, measure animal condition and performance to determine potential effects on animal health.	Department of Agriculture, National Institute of Food & Agriculture	PERRYMAN,BARRY L.		34,560	7/14/2012
Agriculture/ Financial Enterprises		UNR		AGRICULTURAL LITERACY IN ELEM	We propose to develop an agriculture literacy internship which will offer University of Nevada Reno undergraduate students, across majors, the opportunity to enhance their own education.	Department of Agriculture, National Institute of Food & Agriculture	THAIN,DAVID S.		100,473	8/31/2012
Agriculture/ Financial Enterprises		UNR		UNDERGRADS INTERNSHIP OPP-MSFL	Provide work experiences for undergraduate students in the College of Agriculture, Biotechnology and Natural Resources in the area of General Agricultural Practices.	Nevada Agricultural Foundation	KINDRED,BOWEN D.		2,700	8/30/2012
Agriculture/ Financial Enterprises		UNR		DROUGHT STILBENE METABOLISM Y2	Dissect out the components of the regulatory mechanisms modulating grape berry metabolism in general and stilbene biosynthesis in particular in response to drought stress.	Binational Agricultural Research & Development Fund	CRAMER,GRANT R.		117,000	11/30/2012
Agriculture/ Financial Enterprises		UNR		INCORP AG ED ELEM INTERNSHIP	Creates an internship as a partnership between the University, Ag in the Classroom and K-12 education to address educational needs of undergraduates at the University level and agriculture literacy needs at the elementary grade level.	National Rangeland Resources Commission	THAIN,DAVID S.		3,000	6/30/2012
							TOTAL		217,919,589	

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Clean Energy		DRI		Renewable Energy Center (NV)	Renewable Energy Center (NV)	Department of Energy	Ross, Mr. Peter D		690,000	3/31/2012
Clean Energy		DRI		DRI Renewable Energy Center REEF Phase II	DRI Renewable Energy Center REEF Phase II	Department of Energy Federal-Other	Hoekman, Dr. Kent		546,587	7/31/2011
Clean Energy		DRI	UNR/UNLV/CE Construction	Nevada Renewable Energy Consortium	Nevada Renewable Energy Consotium	Department of Energy Federal-Other	Gertler, Dr. Alan W		1,981,614	12/31/2012
Clean Energy		DRI	UNR	DOE Algal-Based Renewable Energy for Nevada	DOE Algal-Based Renewable Energy for Nevada	Department of Energy Federal-Other	Fritsen, Dr. Chris H		1,651,402	10/31/2011
Clean Energy		DRI		Amargosa Desert Vadose Zone Research - USGS Student Services	Amargosa Desert Vadose Zone Research - USGS Student Services	DOI - US Geological Survey Federal-Other	Pohll, Dr. Greg M		45,294	8/14/2011
Clean Energy		DRI		Aquatic Macroinvertebrate and their Habitats; Monitoring Development and Evaluation	Aquatic Macroinvertebrate and their Habitats; Monitoring Development and Evaluation	DOI - Fish and Wildlife Federal-Other	Sada, Dr. Don W		50,000	9/1/2013
Clean Energy		DRI		Biomass Burning, Dust, Sea Salt, Volcanic & Pollution Aerosols in the Arctic during the Last 2 Millennia: High Resolution Aerosol Records from NEEM & an Array of Archived Ice Cores	Biomass Burning, Dust, Sea Salt, Volcanic & Pollution Aerosols in the Arctic during the Last 2 Millennia: High Resolution Aerosol Records from NEEM & an Array of Archived Ice Cores	National Science Foundation Federal-Other	McConnell, Dr. Joe R		499,090	8/31/2012
Clean Energy		DRI		Borrego Springs Alluvial Fan Active and Inactive Area Mapping	Borrego Springs Alluvial Fan Active and Inactive Area Mapping	Bureau Veritas North America, Inc Businesses	Miller, Ms. Julie J		67,820	6/30/2012
Clean Energy		DRI		Canal lining and afforestation to prevent raised groundwater tables and field salinization in Khorezm, Uzbekistan	Canal lining and afforestation to prevent raised groundwater tables and field salinization in Khorezm, Uzbekistan	NSF/U.S. Civilian Research and Development Foundation Other Non Profit Organizations	Lutz, Ms. Alex		22,499	2/9/2013
Clean Energy		DRI		CMG Collaborative Research: Tempered Stable Models for Preasymptotic Pollutant Transport in Natural Media	CMG Collaborative Research: Tempered Stable Models for Preasymptotic Pollutant Transport in Natural Media	National Science Foundation Federal-Other	Zhang, Mr. Yong		315,809	8/31/2013
Clean Energy		DRI		Collaborative Research: Aerosol Concentrations, Sources and Transport Pathways within the Arctic Polar Dome during Recent Millennia	Collaborative Research: Aerosol Concentrations, Sources and Transport Pathways within the Arctic Polar Dome during Recent Millennia	National Science Foundation Federal-Other	McConnell, Dr. Joe R		622,124	8/31/2013
Clean Energy		DRI		Collaborative Research: Analysis of McCall Glacier Ice Core and Related Modern Process Studies	Collaborative Research: Analysis of McCall Glacier Ice Core and Related Modern Process Studies	National Science Foundation Federal-Other	McConnell, Dr. Joe R		231,015	8/31/2011
Clean Energy		DRI		Collaborative Research: Climate, Ice Dynamics and Biology using a Deep Ice Core from the West Antarctic Ice Sheet Ice Divide	Collaborative Research: Climate, Ice Dynamics and Biology using a Deep Ice Core from the West Antarctic Ice Sheet Ice Divide	National Science Foundation Federal-Other	Taylor, Dr. Ken C		355,118	7/31/2011
Clean Energy		DRI		Collaborative Research: Cyberinfrastructure Development for the Western Consortium of Idaho, Nevada, and New Mexico	Collaborative Research: Cyberinfrastructure Development for the Western Consortium of Idaho, Nevada, and New Mexico	National Science Foundation Federal-Other	Dana, Dr. Gayle L		460,534	8/31/2012
Clean Energy		DRI		Collaborative Research: Establishing the Chronology and Histories of Accumulation and Ice Dynamics for the WAIS Divide Core	Collaborative Research: Establishing the Chronology and Histories of Accumulation and Ice Dynamics for the WAIS Divide Core	National Science Foundation Federal-Other	Taylor, Dr. Ken C		99,995	6/30/2015
Clean Energy		DRI		Collaborative Research: Ice core paleoclimate records from Combatant Col, British Columbia, Canada	Collaborative Research: Ice core paleoclimate records from Combatant Col, British Columbia, Canada	National Science Foundation Federal-Other	McConnell, Dr. Joe R		210,236	8/31/2012
Clean Energy		DRI		Collaborative Research: Integrated High Resolution Chemical and Biological Measurements on the Deep WAIS Divide Core	Collaborative Research: Integrated High Resolution Chemical and Biological Measurements on the Deep WAIS Divide Core	National Science Foundation Federal-Other	McConnell, Dr. Joe R		809,174	12/31/2013
Clean Energy		DRI		Collaborative Research: Investigating Upper Pleistocene Rapid Climate Change using Continuous, Ultra-High-Resolution Aerosol and Gas Measurements in the WAIS Divide Ice Core	Collaborative Research: Investigating Upper Pleistocene Rapid Climate Change using Continuous, Ultra-High-Resolution Aerosol and Gas Measurements in the WAIS Divide Ice Core	National Science Foundation Federal-Other	McConnell, Dr. Joe R		456,000	8/31/2015
Clean Energy		DRI		Comprehensive Evaluation of the Geothermal Resource Potential within the Pyramid Lake Paiute Reservation	Comprehensive Evaluation of the Geothermal Resource Potential within the Pyramid Lake Paiute Reservation	DOE/Pyramid Lake Paiute Tribe Other Domestic Governments	Pohll, Dr. Greg M		1,021,425	12/31/2012
Clean Energy		DRI		Consultant Services for Smoky Canyon Mine	Consultant Services for Smoky Canyon Mine	BLM/American Geotechnics Businesses	Albright, Mr. Bill H		108,200	8/31/2012
Clean Energy		DRI	UC Merced, UC Davis	Continued Core Atmospheric and Snow Measurements at the Summit, Greenland Environmental Observatory	Continued Core Atmospheric and Snow Measurements at the Summit, Greenland Environmental Observatory	National Science Foundation Federal-Other	McConnell, Dr. Joe R		1,254,266	6/30/2014

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Clean Energy		DRI	Nevada State Div of Water Resources/Univ of Idaho	Desert Terminal Lakes - Water Resources Evaluation Program	Desert Terminal Lakes - Water Resources Evaluation Program	DOI - Bureau of Reclamation Federal-Other	Thomas, Dr. Jim M		3,300,000	12/31/2013
Clean Energy		DRI	Univ of Idaho	Developing Historical and Future Agricultural Evapotranspiration and Irrigation Water Requirements	Developing Historical and Future Agricultural Evapotranspiration and Irrigation Water Requirements	DOI - Bureau of Reclamation Federal-Other	Huntington, Mr. Justin L		267,623	9/30/2013
Clean Energy		DRI		Development of a Regional Water Management Plan for the Carson River Watershed	Development of a Regional Water Management Plan for the Carson River Watershed	DOI-Bureau of Reclamation/Carson Water Subconservancy District Nevada Local Governments	Lutz, Ms. Alex		14,305	2/28/2012
Clean Energy		DRI		Evaluation of Landfill Conditions and Potential Impacts on Water Resources in Rural Clark County, NV	Evaluation of Landfill Conditions and Potential Impacts on Water Resources in Rural Clark County, NV	US Department of Agriculture Federal-Other	Pohlmann, Mr. Karl F		143,300	9/30/2012
Clean Energy		DRI		Evaluation of Nearshore Ecology and Aesthetics - C/S	Evaluation of Nearshore Ecology and Aesthetics - C/S	USDA - Forest Service Federal-Other	Susfalk, Mr. Rick B		101,818	9/30/2012
Clean Energy		DRI		Expertise in Support of Administrative Hears on SNWA Water-Right Applications in Spring, Cave, Dry Lake, and Delamar Valleys	Expertise in Support of Administrative Hears on SNWA Water-Right Applications in Spring, Cave, Dry Lake, and Delamar Valleys	Southern Nevada Water Authority Nevada Local Governments	Thomas, Dr. Jim M		95,000	12/31/2011
Clean Energy		DRI		Final Design and Restoration of Area A of Middle Rosewood Creek	Final Design and Restoration of Area A of Middle Rosewood Creek	DOI-Bureau of Reclamation/Nevada Tahoe Conservation District Nevada Local Governments	Susfalk, Mr. Rick B		150,580	1/31/2016
Clean Energy		DRI		Finalizing a Nevada Wetland Program Plan (WWP) and Assessing Biotic Integrity of the State's Priority Wetlands: Isolated Great Basin and Mojave Desert Springs	Finalizing a Nevada Wetland Program Plan (WWP) and Assessing Biotic Integrity of the State's Priority Wetlands: Isolated Great Basin and Mojave Desert Springs	EPA/Nevada Natural Heritage Program State of Nevada	Sada, Dr. Don W		341,152	11/30/2014
Clean Energy		DRI		Glaciochemical Analysis of 2010/2011 West Antarctic Ice Cores	Glaciochemical Analysis of 2010/2011 West Antarctic Ice Cores	Woods Hole Oceanographic Institute Other Higher Ed Institutions	McConnell, Dr. Joe R		60,299	2/29/2012
Clean Energy		DRI		Groundwater Model Development to Assess Aquifer Recharge and Recovery in the City of Fernley	Groundwater Model Development to Assess Aquifer Recharge and Recovery in the City of Fernley	DOI-Bureau of Reclamation/City of Fernley Nevada Local Governments	Pohl, Dr. Greg M		75,210	6/30/2012
Clean Energy		DRI		Hybrid BMP Design and Monitoring in Incline Village	Hybrid BMP Design and Monitoring in Incline Village	Nevada Tahoe Conservation District Nevada Local Governments	Susfalk, Mr. Rick B		22,000	3/31/2013
Clean Energy		DRI		Ice Core Analysis and Incorporation of the Arctic Circle Traverse (ACT) Radar	Ice Core Analysis and Incorporation of the Arctic Circle Traverse (ACT) Radar	NSF/University of Utah Other Higher Ed Institutions	McConnell, Dr. Joe R		150,621	8/31/2012
Clean Energy		DRI		Integrated Water Quality Monitoring on the Truckee River	Integrated Water Quality Monitoring on the Truckee River	Community Foundation of Western Nevada Other Non Profit Organizations	McKay, Mr. Alan A		318,012	6/30/2013
Clean Energy		DRI		Integrated Water Quality Monitoring on the Truckee River	Integrated Water Quality Monitoring on the Truckee River	EPA/State of Nevada - Dept of Environmental Protection State of Nevada	McKay, Mr. Alan A		80,000	12/31/2013
Clean Energy		DRI	UC Santa Barbara/USGS/AZ Water Science Center	Investigation of Methods of Potential Value to Monitor Groundwater Recharge in the Mountains of California	Investigation of Methods of Potential Value to Monitor Groundwater Recharge in the Mountains of California	California Energy Commission Other Domestic Governments	Earman, Mr. Sam B		399,990	3/31/2013
Clean Energy		DRI		Investigations of the Effect of Virgin River Water Quality on Native Fishes	Investigations of the Effect of Virgin River Water Quality on Native Fishes	Washington County Water Conservancy District Other Domestic Governments	Chen, Mr. Li		132,565	6/30/2012
Clean Energy		DRI		Measuring Black Carbon and Source Tracers in Canadian Snow and Ice	Measuring Black Carbon and Source Tracers in Canadian Snow and Ice	Environment Canada Foreign Entities	McConnell, Dr. Joe R		50,677	3/31/2012
Clean Energy		DRI		Modeling Soil-Water-Vegetation Response to Climate Change	Modeling Soil-Water-Vegetation Response to Climate Change	USDA/Univ of Az/Ben-Gurion University of the Negev Foreign Entities	Chen, Mr. Li		26,500	8/30/2012
Clean Energy		DRI		Near-Shore Water Quality Monitoring at Lake Tahoe	Near-Shore Water Quality Monitoring at Lake Tahoe	State of NV Div State Lands-Dept Conserv & Nat Resources State of Nevada	Susfalk, Mr. Rick B		52,566	11/30/2011
Clean Energy		DRI		Nevada Infrastructure for Climate Change Science, Education and Outreach - Task 5 (Policy)	Nevada Infrastructure for Climate Change Science, Education and Outreach - Task 5 (Policy)	NSF/Nevada System of Higher Education Other Higher Ed Institutions	Chief, Ms. Karletta		45,189	8/31/2013
Clean Energy		DRI		Nevada Water Resources Data, Modeling and Visualization (DMV) Center - Phase I	Nevada Water Resources Data, Modeling and Visualization (DMV) Center - Phase I	Department of Energy Federal-Other	Jackman, Mr. Tom M		1,066,841	3/31/2012
Clean Energy		DRI		Nevada Water Resources Data, Modeling, and Visualization (DMV) Phase II	Nevada Water Resources Data, Modeling, and Visualization (DMV) Phase II	Department of Energy Federal-Other	Jackman, Mr. Tom M		729,000	9/14/2012
Clean Energy		DRI		NIWR Program (Effects of CC on Snowpack; Hyporheic Exchange Truckee River; Tamarisk Water Use; LV Water System Resiliency)	NIWR Program (Effects of CC on Snowpack; Hyporheic Exchange Truckee River; Tamarisk Water Use; LV Water System Resiliency)	DOI - US Geological Survey Federal-Other	Thomas, Dr. Jim M		262,634	2/28/2013

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Clean Energy		DRI		NSF EPSCoR: Nevada Infrastructure for Climate Change Science, Educaiton and Outreach	NSF EPSCoR: Nevada Infrastructure for Climate Change Science, Educaiton and Outreach	St of Nev/Nevada System of Higher Education Other Higher Ed Institutions	Young, Dr. Michael H		28,540	8/31/2011
Clean Energy		DRI		Numerical Modeling for Water Demands Under Climate Change	Numerical Modeling for Water Demands Under Climate Change	DOI - Bureau of Reclamation Federal-Other	Huntington, Mr. Justin L		175,318	9/30/2012
Clean Energy		DRI		PIRE: International Collaboration for Education, Training, and Research in Ice Core Science (ICE-ICS)	PIRE: International Collaboration for Education, Training, and Research in Ice Core Science (ICE-ICS)	NSF/Oregon State University Other Higher Ed Institutions	McConnell, Dr. Joe R		235,015	8/31/2011
Clean Energy		DRI		Polaris Creek Wetland/Stream Environment Zone (SEZ) Restoration for Tahoe Total Maximum Daily Load (TMDL), BMP Efficiency Testing, Habitat Enhancement, and Outreach	Polaris Creek Wetland/Stream Environment Zone (SEZ) Restoration for Tahoe Total Maximum Daily Load (TMDL), BMP Efficiency Testing, Habitat Enhancement, and Outreach	California-Tahoe Resource Conservation District Other Domestic Governments	Heyvaert, Mr. Alan C		160,018	4/30/2012
Clean Energy		DRI		Predicting the Interactions between Flow, Sediment, and Riparian Vegetation	Predicting the Interactions between Flow, Sediment, and Riparian Vegetation	Department of Interior Federal-Other	Chen, Mr. Li		45,000	9/30/2012
Clean Energy		DRI	Univ of Idaho	Professional Services for Climate and Watershed Investigations in Eastern Great Basin Nevada	Professional Services for Climate and Watershed Investigations in Eastern Great Basin Nevada	Southern Nevada Water Authority Nevada Local Governments	Thomas, Dr. Jim M		342,000	9/30/2013
Clean Energy		DRI	UNR	Proposal to Determine Inter-Annual and Intra-Annual Population Dynamics of Soft Sediments Dwelling D. Bugensis in Boulder Basin, Las Vegas Bay and Overton Arm, Lake Mead	Proposal to Determine Inter-Annual and Intra-Annual Population Dynamics of Soft Sediments Dwelling D. Bugensis in Boulder Basin, Las Vegas Bay and Overton Arm, Lake Mead	DOI - National Park Service Federal-Other	Acharya, Mr. Kumud		143,219	1/30/2012
Clean Energy		DRI		Quality Assurance Review of L31N Groundwater Flow Data for 2006-2009	Quality Assurance Review of L31N Groundwater Flow Data for 2006-2009	South Florida Water Management District Nevada Local Governments	Susfalk, Mr. Rick B		27,422	6/30/2012
Clean Energy		DRI		Rainbow Wash Watershed study	Rainbow Wash Watershed study	Maricopa County Flood Control District Other Domestic Governments	Chen, Mr. Li		80,000	10/31/2011
Clean Energy		DRI		Response of Black Rock-High Rock Emigrant Trails National Conservation Area Springs to Climate Change	Response of Black Rock-High Rock Emigrant Trails National Conservation Area Springs to Climate Change	DOI - Bureau of Land Management Federal-Other	Sada, Dr. Don W		277,420	9/1/2013
Clean Energy		DRI		Tahoe Stormwater Particle Assessment and Management for Urban and Roadway Runoff - C/S	Tahoe Stormwater Particle Assessment and Management for Urban and Roadway Runoff - C/S	USDA - Forest Service Federal-Other	Heyvaert, Mr. Alan C		163,664	10/31/2012
Clean Energy		DRI		Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - CEMP	Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - CEMP	Department of Energy Federal-Other	Chapman, Ms. Jenny B		1,049,844	10/31/2016
Clean Energy		DRI		Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - CRMP and AIP	Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - CRMP and AIP	Department of Energy Federal-Other	Chapman, Ms. Jenny B		788,153	10/31/2016
Clean Energy		DRI		Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - Soils	Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - Soils	Department of Energy Federal-Other	Chapman, Ms. Jenny B		89,344	10/31/2016
Clean Energy		DRI		Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - UGTA	Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - UGTA	Department of Energy Federal-Other	Chapman, Ms. Jenny B		235,693	10/31/2016
Clean Energy		DRI		Technical Support to Southern Nevada Health District for oversight of Reid Gardner Landfill	Technical Support to Southern Nevada Health District for oversight of Reid Gardner Landfill	Southern Nevada Health District Nevada Local Governments	Pohlmann, Mr. Karl F		40,583	6/30/2012
Clean Energy		DRI		Truckee River Flood Management Project	Truckee River Flood Management Project	Manhard Consulting, Ltd Businesses	McGraw, Mr. David S		98,678	10/31/2011
Clean Energy		DRI		Walker Basin Project, Phase 2	Walker Basin Project, Phase 2	National Fish and Wildlife Foundation/University of Nevada, Reno Other Higher Ed Institutions	Thomas, Dr. Jim M		1,706,317	1/1/2012
Clean Energy		DRI		Water Quality Analyses and Reporting	Water Quality Analyses and Reporting	World Vision Inc Other Non Profit Organizations	Thomas, Dr. Jim M		79,500	9/30/2011
Clean Energy		DRI		Water Supply Study of Grass Valley, NV	Water Supply Study of Grass Valley, NV	7Q10, Inc Businesses	Cooper, Dr. Clay		29,384	7/27/2015
Clean Energy		DRI		Watershed-Based Plan for the Pyramid Lake Paiute Tribe	Watershed-Based Plan for the Pyramid Lake Paiute Tribe	EPA/State of Nevada - Dept of Environmental Protection State of Nevada	Knust, Ms. Anna		132,752	12/31/2013
Clean Energy		DRI		Wetlands Up-Scale Selenium Cycle	Wetlands Up-Scale Selenium Cycle	Southern Nevada Water Authority Nevada Local Governments	Acharya, Mr. Kumud		74,832	6/15/2012
Clean Energy		DRI		World Vision Water Projects	World Vision Water Projects	World Vision Inc Other Non Profit Organizations	Thomas, Dr. Jim M		614,798	9/15/2014
Business IT Ecosystems		DRI		Gaze-Directed Interaction in CAVEs	Gaze-Directed Interaction in CAVEs	DOD/Eye-Com Corporation Businesses	Coming, Mr. Dan S		100,403	9/30/2011

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Business IT Ecosystems		DRI		Advanced Computer Vision, Robotics, and Visualization Algorithms for Improving Planetary Exploration and Understanding	Advanced Computer Vision, Robotics, and Visualization Algorithms for Improving Planetary Exploration and Understanding	NASA/Nevada System of Higher Education Other Higher Ed Institutions	Coming, Mr. Dan S		265,521	8/31/2014
Business IT Ecosystems		DRI		We have a number of high performance computing projects but cannot disclose details due to non disclosure agreements						
TOTAL									26,367,503	

NEVADA SYSTEM OF HIGHER EDUCATION

**MAPPING SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS CONTAINED
IN THE STATE'S ECONOMIC DEVELOPMENT PLAN:**

*MOVING NEVADA FORWARD:
A PLAN FOR EXCELLENCE IN ECONOMIC DEVELOPMENT, 2012–2014*

PROJECTS LISTED BY INDUSTRY SECTOR:

Tourism, Gaming, and Entertainment
Clean Energy
Health and Medical Services
Aerospace and Defense
Mining, Materials, and Manufacturing
Business IT Ecosystems
Logistics and Operations
Additional promising possibilities including agriculture and financial enterprises

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

TOURISM, GAMING & ENTERTAINMENT SECTOR

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Tourism, Gaming, and Entertainment	Clean Energy	UNLV		Energy Efficiency Opportunities and Utilization in the US Lodging Industry	Schneider Electric would like to better understand owners/managers' awareness of current energy management solutions and opportunities in the lodging industry. The study will utilize a survey method to collect data.	Schneider Electric	Baloglu, Seyhmus		20,000	12/31/2012
Tourism, Gaming, and Entertainment		UNLV		Nevada Problem Gambling Data Project	The University of Las Vegas International Gaming Institute (UNLV-IGI) will oversee data collection from the six of state-funded problem gambling treatment providers in a manner that is consistent with historical efforts, thereby ensuring maximum consistency and comparability. In addition, UNLV-IGI will continue to develop a new and separate intake approach that will be: 1. Incorporated into the clinic's data collection processes; 2. Used to generate information that the Department of Health and Human Services (DHHS) Grants Management Unit (GMU) will use to reimburse state-funded providers, and 3. Used to ensure that clients do not reach a benefit cap by checking into more than one clinic. Specifically, this system will track: 1. Client name and/or Identifier, 2. Provider Identifier, 3. Date of Admission, 4. Date of Discharge, 5. State Benefits Used to Date, 6. Exceptions Made to Cap (how much and why). UNLV-IGI will provide technical assistance as needed to state-funded treatment providers in the use of intake system, and at the completion of the fiscal year will produce a research report summarizing the data collected including the number of clients treated, the demographic characteristics of these clients, and their gambling characteristics.	Nevada Department of Health and Human Services	Bernhard, Bo		22,057	6/30/2012
Tourism, Gaming, and Entertainment		UNLV		Nevada Problem Gambling Data Project	The University of Las Vegas International Gaming Institute (UNLV-IGI) will oversee data collection from the six of state-funded problem gambling treatment providers in a manner that is consistent with historical efforts, thereby ensuring maximum consistency and comparability. In addition, UNLV-IGI will continue to develop a new and separate intake approach that will be: 1. Incorporated into the clinic's data collection processes; 2. Used to generate information that the Department of Health and Human Services (DHHS) Grants Management Unit (GMU) will use to reimburse state-funded providers, and 3. Used to ensure that clients do not reach a benefit cap by checking into more than one clinic. Specifically, this system will track: 1. Client name and/or Identifier, 2. Provider Identifier, 3. Date of Admission, 4. Date of Discharge, 5. State Benefits Used to Date, 6. Exceptions Made to Cap (how much and why). UNLV-IGI will provide technical assistance as needed to state-funded treatment providers in the use of intake system, and at the completion of the fiscal year will produce a research report summarizing the data collected including the number of clients treated, the demographic characteristics of these clients, and their gambling characteristics.	Nevada Department of Health and Human Services	Bernhard, Bo		11,029	6/30/2012
Tourism, Gaming, and Entertainment		UNLV		C.P.B. Radio Community Service Grant FY 2011 - NPPAG		Corporation for Public Broadcasting	Mueller, Frank		22,730	9/30/2012
Tourism, Gaming, and Entertainment		UNLV		CPB Fiscal Stabilization Grant	Maintain local programming and services and preserve jobs threatened by declines in non-federal revenue sources during the current economic decline.	Corporation for Public Broadcasting	Mueller, Frank		5,971	12/31/2012
Tourism, Gaming, and Entertainment		UNLV		Conrad N Hilton Foundation Grant	To improve and sustain our ability to provide a high quality hospitality education resulting in well-prepared graduates who contribute positively to the hospitality industry.	Conrad N Hilton Foundation	Snyder, Donald		1,000,000	6/30/2014
Tourism, Gaming, and Entertainment		UNLV		Dreaming the Skyline: Resort Architecture and the New Urban Space	A digitization project that will provide online access to the records and representations of the buildings that define the urban landscape in Las Vegas and Nevada. Resort architecture, and the evolution of concepts, designs, and the associated school of thought, is an integral part of Nevada's history and culture. The voluminous items, fragile and difficult to access, are increasingly important to a user group now international in scope. The UNLV Libraries intend to produce an online archive of Nevada's most prominent resorts, both to preserve our own history as well as to teach and inform new architects, designers, and others who wish to study our unique urban landscape.	Nevada State Library and Archives	Vaughan, Jason		80,000	6/30/2012
Tourism, Gaming, and Entertainment		UNLV		Statewide Digital Initiative - Newspaper Pilot Project	UNLV Library staff have observed with growing interest the trend of universities digitizing historical runs of their student newspapers. UNLV's student newspaper, the Rebel Yell, began publication in 1955 and was awarded by the Society of Professional Journalists as the Best Non-Daily Student Newspaper in 2005. The student newspaper is a primary historical record of the largest university in Nevada, and reflects life on an urban campus and it's setting within its parent city, Las Vegas. The UNLV Libraries already possess required microfilm, and have already cleared any copyright questions. This project would not only make our campus newspaper easily accessible, it would allow the libraries to further develop the capacity and technical knowledge to undertake and participate in potential future newspaper digitization projects. In particular, newspaper digitization is referenced several times in Nevada's Five Year Statewide Digital Action Plan (e.g. Explore interest in for statewide digitization initiatives, e.g. oral history, newspaper digitization, including funding strategies - Fall 2012 and Demonstrate statewide multi-cultural heritage initiative creating a model project, for example online oral history collection, online historic newspaper collection or other statewide collection - Spring 2013). Through this pilot project, we will share experience of lessons learned with other practitioners in the state.	Nevada State Library and Archives	Vaughan, Jason		24,500	8/30/2012
Tourism, Gaming and Entertainment	Agriculture	UNR		BURNING OF CHEATGRASS	Explore the prospects for "burning out" cheat grass with repeated fires designed to reduce total and available soil nitrogen and, consequently, cheat grass growth and reproduction.	Department of Agriculture, Forest Service	JOHNSON,DALE W.		321,955	8/22/2012
Tourism, Gaming and Entertainment		UNR	UC-Davis	IMPACTS ASIAN CLAMS/LAKE TAHOE	Determine the environmental factor contributing to the establishment of Asian clams in Lake Tahoe, their spread, growth, and potential impacts to lake clarity.	Department of Agriculture, Forest Service	CHANDRA,SUDEEP	S SOILAND	321,658	8/31/2012
Tourism, Gaming and Entertainment		UNR		NEARSHORE ECOLOGY & AESTHETICS	Provide management agencies with science-based recommendations for the development of long-term monitoring program for Lake Tahoe's near shore environment.	Department of Agriculture, Forest Service	CHANDRA,SUDEEP		43,784	9/30/2012
Tourism, Gaming and Entertainment		UNR		ASIAN CLAM DIST & RECOLONIZA	Advance the knowledge of the invasive species (Asian clam) given its life history strategies in an oligotrophic cold-water lake, early in its invasion stage, and to apply this to ongoing management and control efforts in Lake Tahoe.	Department of Agriculture, Forest Service/University of California, Davis	CHANDRA,SUDEEP		96,554	9/30/2012
Tourism, Gaming and Entertainment		UNR		GBCESU:LK MEAD BENTHIC QUAGGA	Continued determination of the inter- and intra-annual population dynamics of soft sediments dwelling D. bugensis in Boulder Basin, Las Vegas Bay and Overton Arm, Lake Mead.	Department of the Interior, National Park Service/Nevada System of Higher Education, Desert Research Institute	CHANDRA,SUDEEP		67,735	9/29/2012
Tourism, Gaming and Entertainment		UNR		TAHOE WARMWATER FISH ECOLOGY	Conduct and produce a literature review on fish control/removal projects and reported ecosystem or community responses, determine the effectiveness and feasibility of mechanical removal for management of non-native warm water fishes in Lake Tahoe and examine ecological response of native and non-native fishes to intensive harvesting of nonnative species including a) changes in abundance and population demographic structure of non-native fishes, and b) if native fish recovery occurs at infested sites.	Department of the Interior/Tahoe Regulatory Planning Agency	CHANDRA,SUDEEP		408,486	4/30/2013
Tourism, Gaming and Entertainment		UNR		TAHOE KEYS INVERT	Evaluate changes to the benthic invertebrate community after the testing of three methods of non-chemical chemical treatments for management of invasive weeds in the Tahoe Keys.	Department of the Interior/Tahoe Regulatory Planning Agency	CHANDRA,SUDEEP		34,624	5/1/2012

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

TOURISM, GAMING & ENTERTAINMENT SECTOR

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Tourism, Gaming and Entertainment		UNR		SUMMIT LAKE	Investigate the need for management of minnows in the Summit Lake aquatic ecosystem, define the trophic status and bioenergetics of the Summit Lake aquatic ecosystem and educate tribal members as well as broader stakeholders involved with LCT restoration in the Lahontan basin.	Department of the Interior/Summit Lake Paiute Tribe	CHANDRA,SUDEEP		146,130	12/31/2013
Tourism, Gaming and Entertainment		UNR		GBCESU:CRATER LAKE CLARITY	Assess the impact of warming thermal structure on the water clarity and productivity of Crater Lake (Oregon, USA) using structural equation modeling.	Department of the Interior, National Park Service	CHANDRA,SUDEEP		10,018	3/1/2013
Tourism, Gaming and Entertainment		UNR		QUAGGA MUSSEL IN LAKE TAHOE	Assist policy decisions regarding the prevention of invasive species: testing the survival and growth of quagga mussel in Lake Tahoe.	Department of Agriculture, Forest Service	CHANDRA,SUDEEP		314,182	12/31/2014
Tourism, Gaming and Entertainment	Agriculture	UNR		CONTRACEPTIVES/FERAL HORSES	The project will address the following objectives: 1. Healthy Rangelands for multiple uses. 2. Improved campus-based range management education programs. 3. Healthy economies at the ranch, community, and county level. 4. Public land decision-making models that value and support public inputs.	Department of Agriculture, National Institute of Food & Agriculture	THAIN,DAVID S.		27,140	6/30/2012
Tourism, Gaming and Entertainment	Agriculture	UNR		DESERT BIGHORN SHEEP HEALTH	Understand factors influencing health of bighorn sheep populations. The two main objectives are: 1) Discover factors influencing health and persistence of bighorn sheep populations and 2) Identify the impact of domestic livestock on forage quality and availability in regions with desert bighorn sheep populations.	Department of Agriculture, National Institute of Food & Agriculture	THAIN,DAVID S.		64,094	6/30/2012
Tourism, Gaming and Entertainment		UNR		MODELS/MLRA 25 UPLAND SITES	Conceptual state-and-transition models for the upland and riparian ecological sites within the Nevada component of the Major Land Resource Areas 23, 24 and 25 will be developed for inclusion by the Natural Resource Conservation Service (NRCS) in their ecological site descriptions (ESDs). Development of these conceptual models will improve the utility of ESDs and will immediately be useful to field office operations, technical service providers, state and federal land management agencies, and other users.	Department of Agriculture, Natural Resources Conservation Service	STRINGHAM,TAMZEN		79,986	6/30/2015
Tourism, Gaming and Entertainment		UNR		TREE HEALTH/LAKE TAHOE BASIN	Quantify the incidence and severity of tree diseases, pathogens, and other biotic and abiotic damaging agents on the Nevada State Park and US Forest Service land within Nevada Tahoe; quantify changes in incidence and severity of tree diseases, pathogens, and other damaging agents in areas that have been treated by Nevada Department of Forestry and the US Forest Service; and to use remote sensing technology to quantify tree crown damage to different fuel treatments.	State of Nevada, State Department of Conservation & Natural Resources, Division of State Lands	NOWAK,ROBERT S.		126,350	6/30/2012
Tourism, Gaming and Entertainment	Agriculture	UNR		SYNERGISTIC MONITORING/VEG YR4	Monitor and learn from vegetation management treatments, this project will hire an ecologist and possibly assistants to inventory and copy land treatment data available from agency offices from past land treatment projects.	State of Nevada, Department of Wildlife	SWANSON,SHERMAN R.		25,000	6/30/2012
Tourism, Gaming and Entertainment		UNR		BIGHORN SHEEP DISEASE	Test a number of predictions that emerge from conservation and evolutionary genetics studies of other bighorn sheep populations to establish a comparable framework for Nevada's populations.	Boone & Crockett Club	MATOCQ,MARJORIE		25,902	6/30/2012
Tourism, Gaming and Entertainment		UNR		ASIAN CLAMS RISK ASSESSMENT	Evaluate the risk of spread of Asian clams in Lake Tahoe and their potential impacts to Lake clarity.	State of Nevada, State Department of Conservation & Natural Resources, Division of State Lands	CHANDRA,SUDEEP		101,720	9/30/2012
Tourism, Gaming and Entertainment		UNR		MARLETTE LAKE NDOW 2010	Conduct a limnological assessment of Marlette Lake (NV), create a short monitoring plan for detecting invasive species and summarize information that will inform NDOW on the creation of a Fisheries Mgt. Plan.	State of Nevada, Department of Wildlife	CHANDRA,SUDEEP		75,934	12/31/2012
Tourism, Gaming and Entertainment		UNR		MARLA BAY COLDWATER CLAM REMOV	Sample removal population and recolonization of coldwater clams in Marla Bay prior to and after the deployment of bottom barriers to determine control techniques for clam populations.	University of California, Davis	CHANDRA,SUDEEP		15,147	3/31/2012
Tourism, Gaming and Entertainment		UNR		LAKE TAHOE LARGE MAT CLAM CTRL	Sample Lake Tahoe of invasive clams prior to and after the deployment of bottom mat barriers to determine next steps for controlling clam population.	University of California, Davis	CHANDRA,SUDEEP		11,458	3/31/2012
Tourism, Gaming and Entertainment	Business IT Ecosystems	UNR		CO-EVOLVING TACTICS	A revolutionary genetic algorithm based on an artificial intelligence learning system using newly developed technology and self-learning from subject matter is to be developed, tested, and evaluated for decision making simulations.	Department of Defense, Department of the Navy	MAHON,JENNIFER		24,752	3/31/2012
Tourism, Gaming and Entertainment	Health and Medical Services	UNR		AIR FILTRATION/RESPIRATORY DIS	Investigate the effects of air filters, commonly used in homes and business' in Nevada in protecting against the harmful effects of exposure to secondhand cigarette smoke.	Flight Attendant Medical Research Institute	PRITSOS,CHRIS		324,360	6/30/2012
Tourism, Gaming and Entertainment		UNR		GBCESU: DEVILS HOLE HABITAT	Advance the scientific understanding of public resources and their impact at Devil's Hole, Nevada.	Department of the Interior, National Park Service	TYLER,SCOTT W.		88,030	4/30/2013
TOTAL									3,941,286	

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Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessment and Monitoring Design for Evaluating Desert Tortoise Vegetation Enhancement	To enhance desert tortoise habitat in conjunction with a Fish and Wildlife Service desert tortoise translocation, BLM seeks to conduct a project to better understand the effectiveness of seeding and watering to increase desert tortoise forage species and vegetation enhancement. The project will occur in the desert tortoise long-term study and translocation site near Jean, Nevada. The BLM will conduct the actual seeding and watering treatments. The purpose of the project proposed here is to provide technical assistance to BLM in developing a scientifically rigorous experimental design and monitoring plan for evaluating the effectiveness of the vegetation enhancement treatments.	U.S. Bureau of Land Management	Abella, Scott		19,847	12/31/2013
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessment and Restoration of Mesquite and Acacia Woodlands within Lake Mead Recreational Area	The purpose of this project is for NPS and the University of Nevada, Las Vegas to collaborate in understanding the distribution of mesquite/acacia communities within Lake Mead National Recreation Area (LMNRA), assess the possible threats to the woodlands and the most effective restoration techniques for this vegetation type.	National Park Service (DOI)	Abella, Scott		170,898	9/30/2012
Clean Energy		UNLV		Develop and Test Mojave Native Plant Materials	Establish a Mojave native plant materials program to provide locally adapted native plant materials for landscape vegetation rehabilitation.	U.S. Bureau of Land Management	Abella, Scott		160,000	8/31/2013
Clean Energy		UNLV		Developing Appropriate Restoration Practices for Arizona Sonoran Desert Uplands Invaded by Buffelgrass	The goal of this project is to assess three factors related to understanding buffelgrass invasion and to develop appropriate restoration practices for buffelgrass-invaded sites: (1) buffelgrass and native plant seed banks (density along invasion gradients and responses to heat under simulated fire in comparison to native species), (2) soil properties along buffelgrass invasion gradients, and (3) interactions with native plants that may be good candidates for inclusion in seed mixes for restoring sites where buffelgrass has been treated. This collaborative project will produce a literature review report and reports on each of the three factors and their implications for managing buffelgrass and native ecosystems invaded by buffelgrass.	National Park Service (DOI)	Abella, Scott		94,999	3/1/2014
Clean Energy		UNLV		Gypsum Soil Restoration and Revegetation in Lake Mead National Recreation Area: Treatment, Monitoring, and Management Activities	Conduct experiments testing various methods of restoration of the vegetative community and surface structure in gypsum soils.	National Park Service (DOI)	Abella, Scott		256,970	9/30/2012
Clean Energy		UNLV		Investigation of Non-Native Species Invasion into Rare Plant Habitat within Lake Mead National Recreation Area	This project will provide information on the role of biotic and abiotic factors on habitat invasibility. Specifically, the study will document seed viability patterns below and above ground and will be evaluated through experiments conducted in field and greenhouse settings.	National Park Service (DOI)	Abella, Scott		94,799	5/30/2013
Clean Energy		UNLV		Investigation of Plant Colonization and Succession in the Lake Mead Shoreline Drawdown Zone	This project will investigate vegetation colonization and succession along the newly exposed shoreline of Lake Mead.	National Park Service (DOI)	Abella, Scott		120,111	5/1/2013
Clean Energy		UNLV		Monitoring Seeding Effectiveness for Augmenting Native Species Establishment on the Goodsprings and Bonnie Springs Fires, Red Rock Canyon National Conservation Area, Southern Nevada	This project will result in the continuation of (1) effectiveness monitoring of Bureau of Land Management (BLM) native species seeding treatments for revegetating two wildfires in Red Rock Canyon National Conservation Area of southern Nevada, and (2) monitor natural recovery of the communities on these two fires.	U.S. Geological Survey	Abella, Scott		75,000	5/10/2013
Clean Energy		UNLV		Science Support for Tule Desert Fuel Breaks and Greenstrips Project	The purpose of this cooperative agreement between the Bureau of Land Management (BLM) and the University of Nevada, Las Vegas (UNLV) is to provide research opportunities for Environmental Science undergraduate students, while assessing the fuel break and greenstrips treatments for success and/or failure.	U.S. Bureau of Land Management	Abella, Scott		56,000	9/20/2013
Clean Energy		UNLV		CAREER: Vulnerability of Water Infrastructure to Climate Variability and Change: Implications for Sustainable Water Management - ARRA	The motivation of this research is to understand the complex and dynamic interactions among population growth, water-energy nexus, climate change, and vulnerability in a coupled human-environmental system.	National Science Foundation	Ahmad, Sajjad		400,000	7/31/2014
Clean Energy		UNLV		Career: Vulnerability of Water Infrastructure to Climate Variability and Change: Implications of Sustainable Water Management - REU - ARRA	The motivation of this research is to understand the complex and dynamic interactions among population growth, water-energy nexus, climate change, and vulnerability in a coupled human-environmental system.	National Science Foundation	Ahmad, Sajjad		30,000	7/1/2014
Clean Energy		UNLV		CAREER: Development of Novel Polymer Electrolytes - Synthesis and Applications in Fuel Cells	The goal of this project is to build an interdisciplinary materials research and education program by developing a novel class of polymer electrolyte materials that will be useful for high-temperature fuel cell applications and enhance our understanding of the structure-property relationships of these materials at the molecular level.	National Science Foundation	Bae, Chulsung		450,000	8/31/2013
Clean Energy		UNLV		Development of Biofuels Using Ionic Transfer Membranes - Phase 3	Develop a more advanced ionic coating materials that can facilitate efficient transport of sodium via structural and morphological controls of the ionic polymers.	U.S. Department of Energy	Bae, Chulsung		207,388	9/30/2012
Clean Energy		UNLV		Development of Ultrafiltration Membrane-Separation Technology for Energy-Efficient Water Treatment and Desalination Process	This proposal outlines a research plan to develop new polymeric membrane materials that will significantly enhance our understanding of membrane fouling mechanism and advance the development of anti-fouling membranes. The principal investigator proposes a new strategy to synthesize robust polysulfone membrane materials functionalized with various ionic groups and concentrations.	U.S. Department of Energy	Bae, Chulsung		752,600	9/14/2015
Clean Energy		UNLV		Development of Water-Soluble Semi-Conducting Polymers for Solar Cell Applications	Development of novel water-soluble conducting polymers (both p-type and n-type) have that have high conversion efficiency in solar cells.	Korea Institute of Industrial Technology	Bae, Chulsung		37,040	8/31/2012
Clean Energy		UNLV	Desert Research Institute	Liquid Crystal-Based Photovoltaic Cells - Task 2.5.2	Organic photovoltaic cells (OPVC) promise inexpensive electricity form sunlight, but the state of the art OPVCs do not last long. They are unstable because the light-harvesting nanoscale structures aggregate, forming large, inert domains. This aggregation in unavoidable in the current generation of OPVCs because they require two components that must be immiscible. To circumvent the aggregation problem, we propose to take advantage of the unique and tunable phase behavior of OPVC based liquid crystals. Our project spans chemistry, devices, and the development of infrastructure for photovoltaic research.	US Department of Energy	Bae, Chulsung		62,500	9/30/2012
Clean Energy		UNLV	Desert Research Institute	Nano-Structured Polymer Electrolyte Membranes for Hydrogen Fuel Cell Applications Task 7.1.2	This proposal outlines a research plan to develop new proton-conductive materials that will significantly advance progress in fuel cell membrane technology.	US Department of Energy	Bae, Chulsung		67,500	9/30/2012
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium: Task 1.3 Algal Based Fuels	All three NSHE research institutions have on-going RandD related to algal fuels. DRI is exploring the potential of utilizing geothermal fluids for growing algae; UNR is developing modified algal strains to maximize lipid productions; UNLV is working on various engineering aspects related to efficient use of light and improved harvesting techniques. This task will support these on-going activities, help coordinate the work of all three institutions, and extend this work in several new directions.	US Department of Energy	Bae, Chulsung		56,450	9/30/2012
Clean Energy		UNLV	Desert Research Institute	Education and Workforce Development 2 - Task 4.1.2	We propose to develop a workforce training certificate program in renewable energy systems integration with electric grid, to enhance the local workforce performance and expand further the installation of renewable power generation plants in Nevada.	US Department of Energy	Baghzouz, Yahia		29,999	9/30/2012
Clean Energy		UNLV		Optimizing Bifacial PV Shade Structures for the Southwest	Undertake to quantify the increased energy generating potential of the first commercial-scale bifacial PV array on a fixed-tilt and a tracking PV shade structure in Las Vegas, NV.	Nat'l Renewable Energy Lab	Baghzouz, Yahia		196,403	8/14/2012

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Clean Energy		UNLV		Recovery Act: A Nationwide Consortium of Universities to Revitalize Electric Power Engineering Education by State-of-the-Art Laboratories - ARRA	Task 1. During the first year, acquire two of the power electronics laboratory stations or one station of the electric drives laboratory and become familiar with the hardware and experiments. 2. Use the above hardware and UMN-developed experiments in our course (EE 442/642) as we deem appropriate. 3. Modify the UMN experiments as needed for our local needs and possibly develop new experiments. 4. Disseminate the UMN laboratories and our new or modified experiments to other regional universities, technical and community colleges. 5. Attend and actively participate in yearly workshops involving all consortium universities presenting our experiences and new developments to the other participants. 6. Submit a brief quarterly progress report to the University of Minnesota who will provide an online form for the report.	University of Minnesota-FPT	Baghzouz, Yahia		16,666	7/29/2012
Clean Energy		UNLV	Desert Research Institute	Smart Grid-Balancing Intermittent Renewable Generation with Controllable HVAC Load - Task 7.2.2	This project will focus on the smart integration of intermittent renewable generation, namely wind and photovoltaic energy, by matching the output of these generators with heating, ventilation and air conditioning (HVAC) loads on actual NV Energy distribution feeders in Northern and Southern Nevada. The project will consider factors that are critical to the successful exploitation of renewable energy including: intermittency, integration, penetration, coordination, reliability, power quality and optimal operation. The project will provide feasibility data for the expansion of wind and photovoltaic energy production to meet residential, commercial and industrial loads throughout the country.	US Department of Energy	Baghzouz, Yahia		45,000	9/30/2012
Clean Energy		UNLV		Energy Consumption and Carbon Foot-Print of Wastewater Treatment - Phase 1 - Detailed Study of the Aeration System	We propose to use system dynamic modeling approach to evaluate the energy consumption and carbon-foot print for a Clark County wastewater treatment plant. The focus is on the unit operations (e.g. aeration, sludge handling, disinfection) themselves, not on ancillary facilities. Such a model would allow for determination of energy consumption and carbon foot-print of each unit operation present in the plant. Clark County plants are ideal for such study because some of them contain very advanced technology, such as UV radiation, membrane systems and ozonation. In addition, Clark County manages large and small treatment plants and reuse plants that also could benefit from an energy mass balance aiming at increased sustainability.	Clark County Water Reclamation District	Batista, Jacimaria		22,033	6/30/2012
Clean Energy		UNLV		Potential Treatment of Shale Water	The objective of the work described in this proposal are: 1) To estimate the potential quality and amount of water that would be generated in the mining and processing of oil shale in the United States. 2) To perform a preliminary feasibility study to determine whether the technology developed by Mr. Dan Ziol would be suitable to treat the waters from oil shale. 3) To perform laboratory testing, using an actual shale water, to investigate whether the technology can meet the desired water standards.	Earl Corporation	Batista, Jacimaria		45,122	6/30/2012
Clean Energy		UNLV		Collaborative Research: Using Single-Molecule Force and Fluorescence Microscopy to Elucidate the Molecular Mechanism of Bioinspired Magnetite Synthesis in Magnetotactic Bacteria - ARRA	The objective of this research is to use in-vivo and in-vitro single-molecule techniques to investigate the molecular mechanism for protein-mediated biomineralization of magnetite crystals on the cell membrane of a living magnetotactic bacterium.	National Science Foundation	Bazylnski, Dennis		146,261	8/31/2012
Clean Energy		UNLV		Development and Validation of an ATR-C Radiation Transport Model	The main objective of this project is to develop a Monte Carlo model of the ATR-C in Phase I and in Phase II to validate that model while demonstrating the usefulness of ATR-C for future criticality experiments.	Idaho National Laboratory	Beller, Denis		94,769	9/30/2013
Clean Energy		UNLV		Development of a Nuclear Criticality Safety Education and Training Program at UNLV	The proposed nuclear criticality safety education and training program at the University of Nevada, Las Vegas (UNLV) will support the nuclear industry including reactors, used fuel storage and also enrichment and fuel cycle facilities. Within this education and training program, a new nuclear criticality safety (NCS) track will be established as part of the current Master of Science in Materials and Nuclear Engineering degree program at UNLV. This track will include introduction to nuclear criticality safety, Monte Carlo methods, criticality data evaluations, criticality design calculations, and/or criticality experiments. In addition, we will work with various nuclear criticality safety groups (e.g., NSTec, LANL, URENCO USA) to develop an Independent Study/Selected Topics in Nuclear Criticality Safety course that is specifically targeted at the needs of these groups. These criticality safety courses, geared towards nuclear professionals, will be offered both as in house courses at UNLV and as distance learning education.	Nuclear Regulatory Commission	Beller, Denis		198,660	6/6/2014
Clean Energy		UNLV		Nuclear Criticality Safety Program - Task 31	Provide technical support and deliverables for establishing and maintaining a fully compliant Nuclear Criticality Safety Program.	National Security Technologies	Beller, Denis		155,052	9/30/2012
Clean Energy		UNLV		Dramatic Residential Demand Reduction in the Desert Southwest - ARRA	The objective of the proposed work is to demonstrate dramatic peak demand reduction in residential new construction via distributed generation, distributed energy storage, energy efficiency, direct load control, and price-responsive load control.	U.S. Department of Energy	Boehm, Robert	Pulte Homes Nevada Energy	5,724,709	10/1/2013
Clean Energy		UNLV	Desert Research Institute	Education and Workforce Development - Task 4.1.2	Prepare a web-based course on solar energy for manpower training development.	US Department of Energy	Boehm, Robert		35,453	9/30/2012
Clean Energy		UNLV		Low Cost High Concentration Photovoltaic Systems for Utility Power Generation	Additional tasks: Task 1: Testing of the 8700 single plate module-UNLV will move Geoff's special module to the top part of the UNLV 7700 frame. UNLV will design and fabricate brackets for mounting the 8700 module such that the plate can be removed easily and the module can be aligned easily. UNLV working with Amonix will prepare a test plan. Before mounting the module, UNLV will install special instrumentation that might be required by the test plan such as thermocouples and voltage/current sensing wires. UNLV will install the module on the UNLV 7700 testing frame. UNLV will conduct the testing specified in the test plan at the required periodic interval. Task 2: Structure bending-The large Amonix 7700 structural system is subject to gravity and wind bending that affect the power/energy performance. Initial measurements (soon to be published) indicated various possible structural bending errors. UNLV will work with Amonix to develop tests to quantify the structural bending errors. UNLV will prepare a test plan for each test, fabricate any fixtures required, conduct the test, analyze and document the data. Task 3: Beam centroid measurements-UNLV has developed an instrument that can determine the position of the beam centroid on the surface of the cell. UNLV will install this system on the UNLV 7700 system, conduct measurements over several days, analyze the data, and document the results.	Amonix - Federal Pass Through	Boehm, Robert		163,500	7/31/2012
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium - Task 2.4 High Performance Wall Sections and Windows	It is proposed to develop both an interior testing evaluation facility as well as an on-sun evaluation facility to determine the performance of building facade components. Both window and wall types of sections will be the focus of this.	US Department of Energy	Boehm, Robert		199,761	9/30/2012

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Clean Energy		UNLV		Southwest Solar Transformation Initiative (SSTI)	Project will be focused on documenting the current status and opportunity for advancing solar electricity adoption by reducing roadblocks and developing a roadmap for collaboration across communities in the Southwest. The following work will be done: Obtain appropriate administrative commitment and approvals for engaging the University in the agreed-upon research and analysis activities over the course of the Phase I performance period (December 2011-December 2012). Recruit and manage a limited number, (2-4) students to work on Phase I research and analysis activities. Provide for regular (estimated at every 2 weeks) check in calls with SEI/Optony staff in order to debrief on progress, identify/access resources, and consult on specific areas of research and analysis. Work with SEI/Optony to coordinate periodic campus payments related to Phase I support activities, that includes providing for channel to log/report student hours and associated tasks and to disburse periodic (every 2 weeks to once a month) student stipend payments. Provide for documentation of campus cost share in the form of in-kind services funded outside of any federal grants or other federal sources. Coordinate with SEI/Optony staff to digest and integrate students work into Phase I deliverables and presentation of findings back to regional teams (currently planned at the 6 month and 12 month mark). Consider and (if feasible) arrange for student intern presence at one of the final regional team presentations. Collaborate with SEI/Optony to identify and detail a potential campus role in Phase II activities (pending funding).	Strategic Energy Innovations	Boehm, Robert		16,932	2/28/2013
Clean Energy		UNLV		Cost of US Dependence on Foreign Oil	The Center for Business and Economic Research at the University of Nevada, Las Vegas to prepare a 20-25 page report about the consequences of U.S. dependence on imported oil for the National Energy Policy Institute. The report will survey the contemporary economic thinking about the costs of U.S. dependence on imported oil and whether recent oil market developments have significantly changed perspectives on this issue, with the goal of developing comprehensive modeling approach for estimating these costs in a manner that is well grounded in the economic literature. In addition, the report will present quantitative estimates of the annual per barrel costs of U.S. dependence on foreign oil for each year from 2010 through 2035.	National Energy Policy Institute	Brown, Stephen		25,000	8/31/2012
Clean Energy	Business IT Ecosystems	UNLV		Effects of US Tax Code on GHG	The National Academies Committee is mandated to estimate the greenhouse gas (GHG) emissions effects of current provision of U.S. tax law. The Committee seeks external modeling assistance to analyze a number of provisions under consideration. The scope of work for this modeling includes the following tasks: Task 1: Review and Planning of Needed Analyses; Task 2: Model Runs and Analyses; Task 3: Technical Memos.	National Academy of Sciences	Brown, Stephen		14,000	9/30/2012
Clean Energy		UNLV		09-315 Development of Alternative Technetium Waste Forms	In the US advanced fuel cycle program, the UREX+1 process is proposed to separate transuranic elements from spent nuclear fuel. The fission product Tc will be extracted into an organic phase containing tributylphosphate together with uranium within the first process steps.	Battelle Energy Alliance, LLC	Czerwinski, Kenneth		656,347	9/30/2012
Clean Energy		UNLV		Development of a Synthetic Debris for Nuclear Forensics - Task 41	The radiochemistry focused research efforts performed by the University of Nevada, Las Vegas under the National Center for Nuclear Security will have four components: Task 1: surrogate Material synthesis and characterization. Task 2: Utilize collected Trinitite data. Task 3: Activation product analysis. Task 4: Rapid radiochemical separations. These efforts will be coordinated through the UNLV Radiochemistry program and exploit existing expertise in chemical speciation, radioelement materials synthesis, compound characterization, separations and radioisotope counting techniques. Materials will be prepared and characterization to provide data for the development of standards, rapid separations and crucial nuclear data. Irradiations will be performed in conjunction with NSTec utilizing their neutron sources, primarily supports Tasks 1 and 3. It is anticipated collaborations with DOE laboratories within the research areas will be pursued. The project will occur over a 36 month time frame.	National Security Technologies	Czerwinski, Kenneth		341,205	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Evaluation of Phases, Properties and Interactions in Uranium Metal and Cladding with Simulated Burnup	The research to be performed under this proposal will evaluate the influence of high burnup on fuel phases and fuel-cladding chemical interactions relevant to advanced, fast neutron spectrum nuclear reactors. The project will focus on evaluating material properties of U-Zr alloys during simulated burnup and interaction with HT-9 cladding material.	TerraPower, LLC	Czerwinski, Kenneth		865,000	9/30/2014
Clean Energy		UNLV		Graduate Student Fellowships for Radiochemistry Ph.D. Program at the University of Nevada, Las Vegas	The proposed fellowships will provide support for two graduate students in the UNLV Radiochemistry Program. The students will obtain a Ph.D. in Radiochemistry in one of the focus areas in the existing program. A primary goal of the studies in the UNLV Radiochemistry is to elucidate radioelement speciation under the full range of explored experimental conditions.	U.S. Department of Energy	Czerwinski, Kenneth		150,000	6/30/2017
Clean Energy		UNLV		IGERT: Returning the Radio to Chemistry	The stipend and participant support will support on PhD graduate student in the first year and 2 PhD graduate students in years 2-5. The student must be a US citizen or permanent resident as mandated by the grant. The student(s) will work on research projects that are collaborative with Memorial Sloan-Kettering Cancer Center and Hunter College or other institutions in the IGERT consortium. The PI and participating faculty from UNLV will send their students to the annual IGERT retreat at the ACS meeting. Also, the site PI, Professor Czerwinski and participating faculty from UNLV, will assist the IGERT PI and faculty in preparation of course material, setting up distance learning and conferencing sites for the academic institutions and other institutions. The site PI and UNLV faculty participants will assist in developing materials for the IGERT website.	Hunter College of CUNY	Czerwinski, Kenneth		128,700	6/30/2012
Clean Energy		UNLV		Radio Chemistry Fuel Cycle Summer School Program - 2012	The University of Nevada, Las Vegas (UNLV) will be responsible for conducting an intensive 6 week course in radiochemistry with a focus on the nuclear fuel cycle. The course is expected to introduce radiochemistry through the physics of radioactive decay and chemistry of radioelements, discussing the relationship between the periodic table and the chart of nuclides. The course should describe the chart of nuclides, detailing the information, concepts, and data used as foundation for exploring isotopes. Details on alpha decay, beta decay, gamma decay and fission should be presented. The methods and data from the investigation of nuclear properties, nuclear forces and nuclear structure are to be covered. The fundamental chemical properties in radiation and radiochemistry, including the relationship between speciation, kinetics and thermodynamics, the influence of radiolysis on chemistry, radioisotope production and separations, are to be explored. The use of radiochemistry in research and technology development should be covered with attention given to the nuclear fuel cycle. The proposed course will also leverage a recently developed lecture series on the modern nuclear fuel cycle that provides an explanation of radiochemical separations from fundamental chemistry to engineering applications. The course is envisioned to be comprised of both lectures as well as a laboratory component. UNLV staff should form the central core of the faculty for this program, with guest lecturers from universities and national laboratories providing background on the latest educational and research opportunities in this field. The school will be limited to about 12 undergraduate students, chosen from a national search. Academic credit for this program is anticipated.	Idaho National Laboratory	Czerwinski, Kenneth		250,000	12/30/2012

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Clean Energy		UNLV		The Nuclear Science and Security Consortium - Nuclear Chemistry and Education	The Radiochemistry program at UNLV was started in 2004 and performs studies in a broad range of radiochemistry and nuclear science topics. The program, a partnership between the Chemistry Department and the Health Physics Department at UNLV, and administered through the Graduate School, offers the Ph.D. degree in Radiochemistry serves 24 students who work with faculty in nuclear fuel cycle radiochemistry, synthesis and characterization of radioelement containing materials, and develop of novel radioanalytical separations and methods. Professors in the program average around \$2M annual in federal and industrial grants in the program project areas including foundation science, the nuclear fuel cycle, environmental radiochemistry and nuclear forensics. The education and training program is know for rigorous, hands-on methods to prepare students for the research arena. As of October 2010, seven students have received a doctoral degree in Radiochemistry. National laboratory researchers and international institutions collaborate and partner with the Radiochemistry program. The current research direction of the UNLV Radiochemistry Program emphasizes evaluating the chemical forms, structure and coordination of radioelement containing compounds. A range of spectroscopic, radiochemical, scattering, microscopic and computational methods are used to examine these species. Three research areas are emphasized; radioelement compound synthesis and characterization, fuel cycle separations, and radioanalytical methods.	University of California, Berkeley	Czerwinski, Kenneth		378,189	6/30/2012
Clean Energy		UNLV		Solar Cell Nanotechnology	The objective of this project is to develop a low cost nonlithographic nanofabrication technology for the fabrication of thin film porous templates as well as uniform arrays of semiconductor nanostructures for the implementation of high efficiency solar cells. Solar cells based on semiconductor nanostructures are expected to have very high energy conversion efficiencies due to the increased adsorption coefficients of semiconductor nanostructures. In addition, the thin film porous template can be used for optimum surface texturing of solar cells leading to additional enhancement in energy conversion efficiency.	U.S. Department of Energy	Das, Biswajit		738,000	12/31/2012
Clean Energy	Logistics and Operations	UNLV		De-Icing Study	Formulate a salt mixture that lessens the impact of sodium on roadside vegetation and soils in the Mt. Charleston area based on a three step approach. Step one would include field based assessment of salt accumulation in soils along roadside areas that naturally accumulated snow melt in the Mt. Charleston area. In addition, native vegetation would be analyzed for chemical composition in leaves and needles of the dominant species. Step two would involve a screening process conducted in a greenhouse at UNLV in which the dominant species would be grown as young seedlings and subjected to a range of salt loading mixtures. In step three, statistical techniques would be employed to determine the optimum salt mixture based on both plant response and the bulk cost associated with each individual salt.	Nevada Division of State Lands	Devitt, Dale		30,200	7/1/2012
Clean Energy		UNLV	Univ of Nevada, Reno	EPSCoR ISP - Great Basin Climatology	The overarching goal of this ISP is to demonstrate the quality and utility of the Nevada CAN data via analysis of multiple datasets from network instruments and observations in a collaborative interdisciplinary environment and communication of these results to the scientific and land management communities.	Univ. of Nevada, Reno	Devitt, Dale		23,000	9/30/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 4 (Water)	Setting up the highly instrumented transects in northern and southern Nevada. These transects will be used to assess the potential impact of global warming on water resources in Nevada.	NSF EPSCoR	Devitt, Dale		1,212,554	8/31/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Selenium Whitney Drain Study	We propose to conduct a selenium monitoring study associated with the Whitney drainage system area. Water samples will be collected monthly from the Whitney drain and at least 6 monitoring wells up-gradient from the Whitney Drain and analyzed for selenite, selenate and total selenium.	So. Nevada Water Authority	Devitt, Dale		75,000	7/26/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education) - Undergraduate Research Opportunities Program (UROP)	Scholarship awards to students and materials and supplies funds for the faculty mentors.	NSF EPSCoR	Farley, John		62,115	8/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education) - Undergraduate Research Opportunities Program (UROP)	Scholarship awards to the students and materials and supplies funds for the faculty mentors.	NV System of Higher Education	Farley, John		25,800	8/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education) - Undergraduate Research Opportunities Program (UROP)	Student travel to Nevada Undergraduate Research Symposium hosted by the University of Nevada, Reno on April 18-19, 2012.	NV System of Higher Education	Farley, John		2,600	6/30/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education) - Undergraduate Research Opportunities Program (UROP)	This account is for Undergraduate Research Opportunity Scholars. It will include scholarship awards to the students and materials and supplies for the faculty mentors.	NV System of Higher Education	Farley, John		11,000	8/31/2012
Clean Energy		UNLV		Ethnoarchaeological Investigation of the Native Alaskan Seal Poke Storage System	Conduct ethnoarchaeological research of the Native Alaskan seal poke storage system. The seal poke storage system is a highly innovative and efficient subsistence technique and yet no scholarly research has been devoted to it. The primary goal of this study is to document how the pokes and storing facilities are manufactured and the health implications of changes in the storage of traditional foods. This is important to better identify and model storage facilities in the archaeological record as well as potential health implications of contemporary storage techniques.	National Science Foundation	Frink, Liam		132,118	7/31/2013
Clean Energy		UNLV		Natural Life History of Quagga Mussels (Dreissena Bugensis): Reproduction, Veliger Development and Settlement, Growth and Nutritional Status in Las Vegas Bay and Boulder Basin of Lake Mead	This collaborative project will investigate the life history of quagga mussels in Lake Mead through five objectives: 1) investigate the annual reproduction cycle of quagga mussels at different depths in Las Vegas Bay and Boulder Basin of Lake Mead. 2) determine the development and settlement of veligers in Las Vegas Bay and Boulder Basin to further address relatively lower abundance of quagga mussels in Las Vegas Bay compared to that in the open water of the Boulder Basin. 3) monitor the monthly growth and nutritional status of quagga mussels at different depths in Las Vegas Bay and Boulder Basin of Lake Mead. 4) Examine which environmental factor(s) are critical in determining the reproductive behavior of adults, development and settlement of veligers, and growth of quagga mussels in Las Vegas Bay and Boulder Basin of Lake Mead. Many environmental parameters are currently monitored by US Bureau of Reclamation, Southern Nevada Water Authority, and US Geological Survey. 5) compare the life history of quagga mussels in Lake Mead and Lake Michigan and find out what's the similarity and difference between these two regions.	National Park Service (DOI)	Gerstenberger, Shawn		114,016	1/30/2013
Clean Energy		UNLV		Quagga Mussel Research at Lakes Mead, Mohave and Havasu, Nevada	The purpose of this project is boater education and data collection using the protocols and format of the 100th Meridian Initiative at Lakes Mead, Mohave and Havasu in Nevada.	U.S. Fish & Wildlife Service	Gerstenberger, Shawn		28,750	12/31/2012
Clean Energy		UNLV		Weatherization and Energy Efficiencies for Healthy Homes-ARRA	The Nevada Healthy Homes Partnership Program of the Department of Environmental and Occupational Health (DEOH), at the University of Nevada Las Vegas, will assist the City of North Las Vegas in implementing weatherization/energy efficiency efforts to improve housing quality within Southern Nevada. Weatherization and energy efficiency efforts will be provided to low-income housing and will include activities, but not limited to, window and door replacement, window and door weather stripping, furnace tune-ups, vent checks and repair, structural fixes, solar screen replacement, energy efficient light bulb replacement or other energy/weatherization related repairs as deemed necessary by DEOH representatives.	City of North Las Vegas-FPT	Gerstenberger, Shawn		19,000	12/8/2012
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium - Task 4 Education and Workforce Development	This task will be used to advance the education of UNLV undergraduate and graduate students in renewable energy in such topics as research, technological advances, policy development, and implementation issues.	US Department of Energy	Giguet, Aurore		83,494	9/30/2012

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Clean Energy	Tourism, Gaming and Entertainment	UNLV		Shivwits Research Project 2010 Field School	Conduct additional field work in 2011. NPS archaeologists and UNLV faculty and students will collaborate to continue archaeological field work to address research questions related to chronology, subsistence, seasonality and settlement patterns, and interaction and exchange including: excavations at two or more sites, revisit previously recorded sites, conduct additional survey, and geologic and soils studies.	National Park Service (DOI)	Harry, Karen		80,851	11/15/2014
Clean Energy		UNLV		Analysis and Characterization of Irradiated and Non-Irradiated Specimen Samples from the Advanced Test Reactor (ATR) - the Contribution of UNLV as a National Scientific Partner Facility (NSUF)	As part of the radiochemistry and nuclear engineering academic program at UNLV, a number of laboratory resources have been developed since 2003 to support experimental work with radioactive materials. Research activities with significant radioactive materials can be performed in the radiochemistry laboratories at the Harry Reid Center for Environmental Studies, with additional capabilities available for environmental samples in the Health Physics research laboratories, at the Science and Engineering Building (SEB) at UNLV. The overall goal of UNLV is to provide infrastructure and analytical support to researchers at the ATR NSUF in respect to their needs. Dr. Hartmann and Dr. Ma will coordinate and direct these efforts at UNLV.	Idaho National Laboratory	Hartmann, Thomas	20,330	9/30/2013	
Clean Energy		UNLV		Idaho National Laboratory Joint Appointment Agreement	The overall goal of the collaboration outlined is to support the characterization and property analysis of transmutation fuels development investigated at INL.	Battelle Energy Alliance, LLC	Hartmann, Thomas		397,828	10/31/2012
Clean Energy		UNLV		Irradiation Testing and Molecular Modeling of Irradiation-Assisted Diffusion and Microstructural Evolution	The mission of the proposed work is to contribute to the development of advanced nuclear fuels in collaboration with the Nuclear Fuels and Materials Division of the Idaho National Laboratory. More specifically, the Subcontractor shall investigate interdiffusion phenomena in surrogate sub-systems of advanced transmutation fuels to allow for a refined understanding of useable lifetime of fuels and fuel components.	Battelle Energy Alliance, LLC	Hartmann, Thomas		327,516	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Microstructural Characterization of AS-Fabricated Fuel Plates	The mission of the proposed work is to contribute to the development of Low-Enriched Uranium (LEU) nuclear fuels in collaboration with the Idaho National Laboratory (INL). Specifically, the University of Nevada, Las Vegas (UNLV) will perform microstructural characterization of selected as-fabricated LEU monolithic U-Mo fuel plates for the Reduce Enrichment for Research and Test Reactors (RERTR) Program. The RERTR Fuel Development Program is developing the LEU nuclear fuels to replace existing High-Enriched Uranium (HEU) fuels currently used in some research reactors throughout the world. An important part of the fuel development program is irradiation testing of fuel plates in the Advanced Test Reactor (ATR). In order to successfully complete this testing and subsequent post-irradiation examinations (PIE), it is critical that the starting microstructures of the as-fabricated fuel plates be determined. This data will be used to generate required As-Fabricated Characterizations Summary Reports produced by the INL. This data will also be used to support generation of the RERTR Fuel Qualification Report. A variety of microstructural characterization techniques can be employed to adequately perform microstructural characterization. These techniques included, but are not limited to, optical metallography (OM), scanning electron microscopy (SEM), transmission electron microscopy (TEM), and X-ray diffraction (XRD).	Idaho National Laboratory	Hartmann, Thomas		100,001	12/1/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		The Experimental Synthesis and Characterization of Technetium (Tc) Bearing Binary and Complex Oxides	Our goal in this proposed research is to fabricate and characterize technetium-bearing fluorite derivative oxide compositions as candidate waste forms for disposition of technetium and other fission product elements from used nuclear fuel.	Los Alamos Nat'l Lab	Hartmann, Thomas		200,000	9/30/2012
Clean Energy		UNLV	Nevada System of Higher Education	Biological Ca Isotopic Fractionation in Desert Soils as a Potential Biosignature	We propose to test Ca isotopic fractionation by biological soil crusts and the rhizosphere of creosote bushes as a potential biosignature in arid soils, such Ca isotopic fractionation might be preserved in paleosols, and which may be a good analog for martian soil processes.	NASA EPSCoR	Hausrath, Elisabeth		29,977	3/30/2013
Clean Energy		UNLV		CAREER: Linking novel thermophiles with ecosystem function: study of a model spring in Nevada	The project converges on four objectives: 1) To use spring chemistry to predict microbial metabolisms. 2) To determine which respiratory activities occur in situ. 3) To determine which organisms are primary producers and examine their potential activities using a sub-community transcriptomics approach. 4) To culture thermophiles in the laboratory and study them in mixed and pure culture.	National Science Foundation	Hedlund, Brian		841,632	8/31/2012
Clean Energy		UNLV	Desert Research Institute	Novel Thermophilic Microorganisms and Cellulases for Improving Second-Generation Biofuels Technologies - Task 1.1.2	The project focuses on degradation of a major agricultural waste, AFEX-treated corn stover and a major candidate non-food crop and industrial waste resource, poplar shavings.	US Department of Energy	Hedlund, Brian		157,559	9/30/2012
Clean Energy		UNLV		PIRE: Toward a Holistic and Global Understanding of Hot Spring Ecosystems: A US-China Based International Collaboration	This project builds on an existing foundation of collaboration between US and Chinese geobiologists to nucleate a large, international team to focus on the microbial diversity, biogeography, and ecosystem-level functioning within geothermal source pools in the largest hot spring complex in China, the Tengchong Geothermal Field in Yunnan Province. The long-term goal of this project is to develop a holistic and global view of geobiology in geothermal systems to complement and build upon what is known about life in other geothermal sites, such as Yellowstone National Park. In addition, US students and scientists will have a unique opportunity to experience the biologically, geologically and culturally-diverse regions in southwestern China and develop long-lasting international collaborations.	National Science Foundation	Hedlund, Brian	Montana State University Miami University Stanford University San Francisco State University Arizona State University University of Georgia Research Foundation Northern Arizona University California University - Fullerton	1,319,124	
Clean Energy		UNLV		PIRE: Toward a Holistic and Global Understanding of Hot Spring Ecosystems: A US-China Based International Collaboration - Participant Support	This project builds on an existing foundation of collaboration between US and Chinese geobiologists to nucleate a large, international team to focus on the microbial diversity, biogeography, and ecosystem-level functioning within geothermal source pools in the largest hot spring complex in China, the Tengchong Geothermal Field in Yunnan Province. The long-term goal of this project is to develop a holistic and global view of geobiology in geothermal systems to complement and build upon what is known about life in other geothermal sites, such as Yellowstone National Park. In addition, US students and scientists will have a unique opportunity to experience the biologically, geologically and culturally-diverse regions in southwestern China and develop long-lasting international collaborations.	National Science Foundation	Hedlund, Brian		75,023	7/31/2015

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Clean Energy		UNLV		Working Toward a Competitive Secondary Biofuels Industry: Biochemical Characterization of Novel Thermophilic Cellulases	This proposal focuses on the expression and biochemical characterization of cellulose genes from a currently funded metagenomics project focusing on thermophilic cellulolytic microbial communities. Objective 1: Bioinformatic analysis of putative cellulase genes. Objective 2: Heterologous expression and characterization of novel cellulases.	U.S. Department of Energy	Hedlund, Brian		44,526	12/31/2012
Clean Energy		UNLV	NV System of Higher Education	DOE EPSCoR - Management - State Funds	The Project Director works with the Director of the Nevada EPSCoR Office and the staff of the Nevada EPSCoR office, the NSHE Research Affairs Council and NSHE faculty to accomplish the tasks listed. The general tasks are: (1) Engage NSHE faculty to compete for DOE EPSCoR solicitations; (2) Facilitate the solicitation process for the statewide solicitation (FOA from DOE) to include: engage external reviewers, facilitate panel review, organize reviewers comments; and (3) Ensure timely submission of the DOE EPSCoR statewide proposal and provide input and narrative for the program management; if applicable (4) develop a technical advisory committee for the DOE funded proposal and host an annual meeting with the committee and project team.	NV System of Higher Education	Hemmers, Oliver		14,745	6/30/2012
Clean Energy		UNLV		Gravity Insensitive Solid-Gas Sorption Climate Control System	The proposed project is the development of thermal management systems based on heat pumps that replace mechanical compressors with thermally driven sorption system of Solid-Gas Sorption Heat Pumps.	National Aeronautics and Space Administration	Hemmers, Oliver	Rocky Research	603,172	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		KIT-UNLV Cooperation Agreement	KIT and UNLV agree to jointly perform experiments to determine the electronic, chemical, and structural properties of selected materials and their surfaces. These materials will be conceived, synthesized, prepared, and pre-characterized at KIT, and further complementary characterization experiments will be performed at UNLV and, through the activities of the UNLV Chemistry Department, also at the ALS. Samples to be studied may include (but are not limited to) materials and thin film systems of relevance for energy conversion (batteries, fuel cells, and photovoltaic devices), nanomaterials, biomaterials, and materials for research on waste disposal issues.	Karlsruhe Institute of Technology	Heske, Clemens		1,396,284	12/31/2014
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Next Generation CdTe Photovoltaic Technology	Representative CdTe cells fabricated at Colorado State with the new deposition sources will be sent to UNLV for interfacial studies. For the CdS/CdTe interface, the UNLV group will cleave the completed cell laterally inside an oxygen-free glove-box environment and use its extensive array of analysis tools to characterize the electronic and chemical properties of the two exposed surfaces. The results of the studies will be discussed and fed back into the fabrication process in a rapid fashion. Process modifications will be proposed, and the UNLV characterization capabilities will be employed to monitor the impact of such process modifications. Professor Heske and the graduate student at UNLV will participate remotely in the research meetings and will attend the larger meetings in person.	Colorado State University	Heske, Clemens		128,475	7/31/2013
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Surface Validation: Physical and Electronic Characterization of Materials for Photoelectrochemical Hydrogen Production	The objective of this effort is to obtain advanced characterization of semiconductor samples of interest to NREL. The samples must have potential for deployment in photoelectrochemical water-splitting systems. Perform research to determine the chemical composition and bonding environment, electronic surface band gap, the band edge positions, work function, and surface morphology for samples produced at NREL and other members of the Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) photoelectrochemical working group.	Nat'l Renewable Energy Lab	Heske, Clemens		190,000	11/3/2012
Clean Energy		UNLV		The Separation and Analysis of Manufactured Nanomaterials in Environmental Samples	The contractor shall provide the necessary personnel, facilities, equipment, and otherwise do all things necessary for or incidental to the successful separation, characterization, and analysis of manufactured nanomaterials in environmental matrices selected from the following: surface, ground water, wastewater, plants and fish tissues, biosolids, sediments, and soils.	Environmental Protection Agency	Hodge, Vernon		119,765	8/30/2012
Clean Energy		UNLV		Losing in Las Vegas: Educational Inequality, Ideology, and Reform in the West	To better understand the historical, social, and political contexts that have shaped decades of failed education reform in West Las Vegas, the purpose of this case study is to examine the social and community forces located at the intersection of educational inequality, ideology, and district-led school reform efforts designed to equalize educational opportunities for children in historically underserved communities.	Spencer Foundation	Horsford, Sonya		37,500	6/30/2012
Clean Energy		UNLV		Energy Education - Southwest Gas	Continue a cooperative agreement between UNLV and SWG that was established to train educators and students. Energy education will be provided to teachers, students and selected residents within the SWG service area.	Southwest Gas Corp	Jacoby-Garret, Paula		36,000	6/30/2013
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessing the Occurrence and Prevalence of an Emergent Disease Agent (Batrachochytrium Dendrobatidis) in Anuran Populations within Southern Nevada	One of the first steps in understanding the impact of Bd (batrachochytrium dendrobatidis - a casual agent of disease in amphibians) on anuran species in southern Nevada is to document its occurrence within the region and to determine prevalence in particular systems. Herein we propose to conduct such sampling. We will sample at numerous sites across the region in an attempt to simply document occurrence. For a few important anuran populations, we will conduct more intensive sampling to actually determine prevalence with statistical assurance - which could include the documentation of no occurrence. Sampling will be targeted during cooler seasons when Bd is expected to be most prevalent; however, if documented in the region, our objective is to determine changes in prevalence within a population between cool and hot seasons.	Nevada Div. of Wildlife	Jaeger, Jef		25,165	6/30/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessment of Desert Bighorn Sheep on Desert National Wildlife Refuge, Nevada: Phase 1	The following activities are added - Provide a retrospective vegetation analysis of vegetation changes on the DNWR and use it to aid in the development of the predictive habitat models. Utilize aerial and satellite imagery over the last several decades (potentially dating back to the 1950s) to assess landscape scale changes in vegetation structure that may have contributed to wildlife changes and impact fire regimes. Such change may have been facilitated, or exacerbated, by climate change. This research will take advantage of recent efforts to develop high resolution vegetation maps of current conditions in order to identify medium-resolution spectral patterns of biologically significant vegetation characteristics that can then be assessed backwards through time.	U.S. Fish & Wildlife Service	Jaeger, Jef		117,942	12/31/2014
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Conservation Actions for the Relict Leopard Frog at Lake Mead National Recreation Area	Conduct monitoring, research, and management activities for the relict leopard frog (Rana onca), a species of conservation concern covered by the Clark County Multiple Species Habitat Conservation Plan and managed under a cooperative strategy with the Relict Leopard Frog Conservation Team. The project outlined here is intended to implement and coordinate management, monitoring and conservation actions for R. onca as outlined in the cooperative strategy, with the goal of conserving existing relict leopard frog populations and establishing new populations. Important conservation actions for the relict leopard frog are annually cyclical in nature, generally beginning in very early spring and ending in December of each year. This project is intended to include: monitor existing natural populations; monitor experimental populations, identify and implement management actions to improve or mitigate habitat conditions at existing sites; manage a headstarting program to raise eggs collected from wild frogs to later stages for translocation to new sites; and assist efforts by land managers in overall management for R. onca through identification of new sites for translocations, and coordinating and documenting activities of the interagency Relict Leopard Frog Management Team.	National Park Service (DOI)	Jaeger, Jef		240,000	3/31/2014
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Conservation Actions for the Relict Leopard Frog at Lake Mead National Recreation Area - Matching Project	The project is intended to implement and coordinate management, monitoring and conservation actions for R. onca, with the goal of conserving existing relict leopard frog populations and establishing new populations. Important conservation actions for the relict leopard frog are annually cyclical in nature, generally beginning in very early Spring and ending in December each year. This project is intended to implement conservation actions for a period of three years (from 2011 through 2013).	NV Department of Wildlife	Jaeger, Jef		109,996	6/30/2014

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Clean Energy		UNLV		Development of a Habitat Management Plan to Maintain Viability of Desert Bighorn Sheep Population in the River Mountains, Nevada: Analysis of Mitochondrial DNA Diversity and Connectivity	The research proposed is designed to provide information for the development of an interagency adaptive habitat plan for long-term management of the River Mountain bighorn sheep population.	National Park Service (DOI)	Jaeger, Jef		101,842	6/30/2012
Clean Energy		UNLV		Relict Leopard Frog	Conduct mark-recapture estimates simultaneously with visual encounter survey at a minimum of four sites selected to represent different habitat conditions for areas occupied by natural and experimental populations of the species.	U.S. Fish & Wildlife Service	Jaeger, Jef		37,835	9/30/2013
Clean Energy		UNLV		Collaborative Research: Ocean Redox Evolution at the Dawn of Animal Life: An Integrated Geological and Geochemical Study of the Ediacaran Yangtze Platform in South China	We propose an integrated sedimentological, geochemical, and paleobiological study across two platform-to-basin transects of the Ediacaran Yangtze platform to test the following hypotheses....	National Science Foundation	Jiang, Ganqing		154,613	7/31/2012
Clean Energy		UNLV		Collaborative Research: Testing Himalayan Tectonic and Erosional History via Chronostratigraphic Correlation Between the Lesser Himalaya and Indian Craton	Expand approach in order to test a reigning paradigm in Himalayan geology, namely that specific geochronological and geochemical signatures are unique to the LH, and distinguish this lithotectonic zone from other zones.	National Science Foundation	Jiang, Ganqing		55,459	9/30/2014
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Development of Thermal Transient Flow Rate Sensors for High Temperature, Irradiation, Corrosive Environment	In an advanced very high temperature reactor (VHTR), the coated particle fuel is burned in a graphite-moderated reactor that is cooled with special coolants. One type of coolant materials that has been actively researched on is liquid fluoride salt, which unfortunately is very corrosive to structure material. As such and also caused by the extreme operating environment imposed by the reactor, including high radiation level, and high temperature (outlet temperature is up to 1000C), most existing instruments will fail to function reliably. In order to improve monitoring capability and system reliability in a nuclear reactor, research and development of salt-wetted instrumentation for both operations and maintenance is required. This proposal addresses one such equipment that is used to perform on-line, long term measurement of coolant flow rates.	Battelle Energy Alliance, LLC	Jiang, Yingtao		344,318	9/30/2013
Clean Energy		UNLV	Desert Research Institute	Enabling Technology for Solar Energy Development in Nevada - Task 2.8.2	Large-scale solar facilities where trackers/heliostats are used to concentrate sunlight onto a collector have the potential to be the most economical arrangement for solar power generation. This project examines cost reductions of those facilities through three types of improvements. First, we examine the potential benefits of encasing heliostats within protective domes, which reduce the structural, mechanical, and electrical requirements for tracker mechanisms. Second, we examine a system that separates the high load function of moving large numbers of heliostats from the low-load, high-precision function of fine tuning the heliostat operation. Third, we examine the coupling between windblown dust and the presence of large-scale solar installations not only from the perspective of how best to keep optical components free of dust, but also from the perspective that it may be possible to stabilize degraded land simply by installing solar arrays.	US Department of Energy	Johnson, Allen		145,424	9/30/2012
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium - Task 2.3 Solar Research Tower	UNLV researchers will design a 1-15 MW solar tower research facility to be located in or near Las Vegas, as well as investigate several novel solar tracker mechanisms to incorporate and test at the facility.	US Department of Energy	Johnson, Allen		199,762	9/30/2012
Clean Energy		UNLV		Smart Grid WNM Communication Algorithm Support - Task 29	The School of Computer Science at UNLV shall provide laboratory space, faculty and computational assets in order to: 1)Develop low-cost secure Smart Grid WNM algorithm and 2)Build a demonstration platform for SDRD (RSLN-01-12).	National Security Technologies	Kim, Yoohwan		36,000	9/30/2012
Clean Energy		UNLV		Collaborative Research: Paleoclimate and Cultural Change in Mesoamerica: Testing the Hypothesis of an El Nino/Southern Oscillation Forcing of Late Holocene Rainfall Variability	The objective of this proposal is to develop several high-resolution (~2 to 5 yr), time-overlapping and replicated d18O records over the past five millennia from U-series dated stalagmites collected in an ENSO-sensitive region of southwestern Mexico. The data will test the hypothesis that southern Mexico experienced prolonged wet conditions during the MCA, coincident with a more La Niña-like state of low sea surface temperatures in the eastern Pacific Ocean.	National Science Foundation	Lachniet, Matthew		346,491	5/31/2013
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium: Task 2.2 Enabling Technology for Solar Energy Development in Nevada	Large-scale solar facilities where trackers/heliostats are used to concentrate sunlight onto a collector have the potential to be the most economical arrangement for solar power generation. This project examines cost reductions of those facilities through three types of improvements. First, we examine the potential benefits of encasing heliostats within protective domes, which reduce the structural, mechanical, and electrical requirements for tracker mechanisms. Second, we examine a system that separates the high load function of moving large numbers of heliostats from the low-load, high-precision function of fine tuning the heliostat operation. Third, we examine the coupling between windblown dust and the presence of large-scale solar installations not only from the perspective of how best to keep optical components free of dust, but also from the perspective that it may be possible to stabilize degraded land simply by installing solar arrays.	US Department of Energy	Lee, Joon		55,688	9/30/2012
Clean Energy		UNLV		Development of Biofuels Using Ionic Transfer Membranes	Development of a tubular NaSICON (Sodium Super Ionic Conductors) membrane process that produces high-purity sodium methoxide from low-cost aqueous sodium hydroxide.	U.S. Department of Energy	Lipinska-Kalita, Kristina		1,292,612	9/30/2012
Clean Energy		UNLV		Hollow Glass Microspheres	The objective of this research project is to fabricate and study new types of glass-based materials that could be promising candidates for hydrogen storage media.	U.S. Department of Energy	Lipinska-Kalita, Kristina		523,325	10/31/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV		Development of Thermal Transient Flow Rate Sensors for High Temperature, Irradiation, Corrosive Environment	In an advanced very high temperature reactor (VHTR), the coated particle fuel is burned in a graphite-moderated reactor that is cooled with special coolants. One type of coolant materials that has been actively researched on is liquid fluoride salt, which unfortunately is very corrosive to structure material. As such and also caused by the extreme operating environment imposed by the reactor, including high radiation level, and high temperature (outlet temperature is up to 1000C), most existing instruments will fail to function reliably. In order to improve monitoring capability and system reliability in a nuclear reactor, research and development of salt-wetted instrumentation for both operations and maintenance is required. This proposal addresses one such equipment that is used to perform on-line, long term measurement of coolant flow rates.	Battelle Energy Alliance, LLC	Ma, Jian		106,951	9/30/2013
Clean Energy		UNLV	Desert Research Institute	Nevada Renewable Energy Consortium - Task 1.3 Algal Based Fuels	All three NSHE research institutions have on-going RandD related to algal fuels. DRI is exploring the potential of utilizing geothermal fluids for growing algae; UNR is developing modified algal strains to maximize lipid productions; UNLV is working on various engineering aspects related to efficient use of light and improved harvesting techniques. This task will support these on-going activities, help coordinate the work of all three institutions, and extend this work in several new directions.	US Department of Energy	Ma, Jian		143,311	9/30/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 5 (Policy and Outreach Component)	The objective of this component is to develop data collection, modeling, and visualization tools to better understand institutional and societal aspects of climate change and perform outreach to translate and communicate this science.	NSF EPSCoR	Neill, Helen		1,304,321	6/30/2013

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Clean Energy		UNLV		Mapping the Physical Properties of the Surface Layer with Remote Sensing and Spectroscopic Field Measurements for Habitat Modeling in the Mojave Desert Ecoregion	This proposed research builds upon the PI's prior experience in the area of thermophysical modeling and mapping, and seeks to extend this methodology to geomorphic surfaces that can be studied using currently available datasets collected by NASA Earth Observing System satellites over the past decade. The impact of surface materials and surface changes to habitat modeling has been underdeveloped due to the lack of quantitatively derived mechanical composition datasets. Therefore, this project is aimed at mapping surfaces within the Mojave Desert at a high spatial resolution and large spatial extent, utilizing multiple wavelengths from visible to thermal infrared. The result will be the development of quantitative datasets that can be further utilized in habitat models to better understand the dynamic surface processes that are influencing the current and possible future distributions of threatened species in the Mojave Desert Ecoregion.	U.S. Geological Survey	Nowicki, Scott		64,625	12/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCOR RII UNLV Task 7 (Education - Curriculum Development Project)	Disburse subawards to Great Basin College and to the University of Nevada, Reno for Curriculum Development Awards.	NV System of Higher Education	Nussbaum, Edward	University of Nevada, Reno Great Basin College	60,000	8/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCOR RII UNLV Task 7 (Education)	The Education Component has several tasks that will involve faculty from UNLV, UNR, DRI and NSC. These include K-12 section: An annual workshop and course for cohorts of Nevada Middle School Teachers. Undergraduate Research component: School-year and summer competitive research funding opportunities for students working on climate change and other STEM research projects. Graduate Research component: Competitive graduate assistantships for students doing work related to climate change. A curriculum component which will develop courses on, an undergraduate minor in and a graduate certificate in climate change.	NSF EPSCoR	Nussbaum, Edward		234,407	8/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCOR RII UNLV Task 7 (Education) - Losing the Lake: Promoting Sustainability Awareness Through Educational Computer-Simulations of Lake Mead Water Levels and Water Supply to the Las Vegas Valley	Goal 1: Link climate models and water flow simulations for education purposes. Goal 2: Design a serious, learning-appropriate simulation game. Goal 3: Build on existing EPSCoR infrastructure. Goal 4: Utilize the simulation game to promote educational outreach.	NV System of Higher Education	Nussbaum, Edward	University of Nevada, Reno	99,686	6/30/2012
Clean Energy		UNLV		Collaborative Research: Advancing Chemistry by Enhancing Learning in the Laboratory (ACELL)	The two main goals of this project are: to provide for the professional development of chemistry faculty by expanding their understanding of issues surrounding learning in the laboratory environment; to facilitate the development of a community of practice of laboratory educators by providing mentoring in educational theory and practice, regular workshops, and a presence at scheduled chemical education conferences.	National Science Foundation	Orgill, MaryKay		97,158	8/31/2013
Clean Energy		UNLV		UNLV Canopy GIS Development	In this proposal, the mapping of landcover classes for the CityGreen analysis for the Las Vegas Canopy Study is presented. Areal imagery acquired by the National Agricultural Imaging Program during 2006 will be used and landcovers of 1)Bladed Ground, 2)Barren Ground, 3)Open Space, 4)Parking lots, 5)Buildings, and 6) Water Features, will be mapped. The maps will be prepared using Geographic Information System (e.g. ArcGIS shapefiles) containing geometry (shapefiles with polygons) of these landcover types. In the digitization of landcover classes, necessary QA/QC will be performed to assure the accuracy of mapping. The resulting product will be furnished with FGDC compliant standard metadata.	Nevada Division of Forestry	Palmer, Craig		72,100	12/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	EPSCoR Urban Water ISP	This project focuses on the impact of climate change on water systems in urban areas of Las Vegas Valley and Reno as critical case studies for understanding water management in arid regions. The emphasis of the research will be on linking climate models with water supply (e.g., hydrologic scenarios) and demand, and how water managers use information within the decision-making process.	NSF EPSCoR	Piechota, Thomas	University of Nevada, Reno Desert Research Institute	148,000	8/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	EPSCoR Urban Water ISP - Hosting	Hosting activity on Integrative Science Project.	NSF EPSCoR	Piechota, Thomas		2,000	8/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCOR RII UNLV Task 1 (Admin)	The work required for this task includes overall management of UNLV PIs, acting as a Liaison for the Policy and Outreach, and Water Components of the project, and other project-wide PI responsibilities.	NSF EPSCoR	Piechota, Thomas		155,674	8/31/2012
Clean Energy		UNLV	NV System of Higher Education	NSF EPSCoR RII UNLV Task 7 (Education)	Repost funds for the Nevada EPSCoR Graduate Student Research Assistants.	NV System of Higher Education	Piechota, Thomas		217,420	8/31/2012
Clean Energy		UNLV		Resource Conservation and a Sustainable Las Vegas - Tasks 2, 3, 4	This research project will develop educational, research, and outreach activities that address the challenges of Las Vegas related to a secure energy supply through conservation, clean and adequate water supply, economic growth and diversification, air quality, and the best use of land, and usable public places.	U.S. Department of Energy	Piechota, Thomas		244,992	5/31/2013
Clean Energy		UNLV		University of Nevada, Las Vegas Water in the 21st Century Multi-Disciplinary Research Project	The main objectives of this research are to (1) support graduate students working on sustainability research; (2) provide seed grants to interdisciplinary research teams that are evaluating the energy/water relationships for sustainability; (3) host a regional workshop on sustainability.	U.S. Department of Energy	Piechota, Thomas	Clark County School District	300,413	5/31/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Information Management Research and Development Support for Forest Inventory Analysis (FIA) National Information Management Systems (NIMS)	Tasks to support the National Inventory and Monitoring Applications Center (NIMAC) include but are not limited to continued support to Wisconsin Continuous Forest Inventory (WisCFI) database, website and web tools. And UNLV will provide Project Management for the Development of the Design and Analysis Tools for Inventory and Monitoring (DATIM) development effort. Resources will primarily be the UNLV staff, with some additional support from other sources.	U.S. Forest Service	Pollard, James		2,059,414	6/30/2013
Clean Energy		UNLV		Nuclear Science and Security Consortium - Nuclear Chemistry and Education	Develop ION Beam Nuclear Transmutation Doping (IBNTD) (US patent 7,795,120) as a viable method to produce sturdy, compact and precision-layer-doped wide bandgap devices to be used for direct energy conversion (DEC) to harness energy from spent nuclear fuel and as rugged sensors for monitoring extreme conditions inside a nuclear reactor and waste site and also to be used for precision devices to measure extreme environments (such as in a nuclear reactor).	University of California, Berkeley	Pravica, Michael		189,157	6/30/2016
Clean Energy		UNLV		Nevada Retrofit Initiative	Conduct focus group meetings and market surveys to define targeted neighborhoods; assist in critic of marketing plan; assist in evaluation of market plan results; evaluate survey results; repeat surveys for new neighborhoods as identified.	Nevada Office of Energy	Priest, Susanna		100,000	12/31/2012
Clean Energy		UNLV		Administrative Assistant Support Services	Provide administrative assistant support services. The contractor shall provide personnel possessing the skills, knowledge and training to satisfactorily perform the non-personal, administrative support services required under this contract. The work contributes to the effective performance of the Wilderness Stewardship program. Duties and support functions have an impact on administrative Wilderness Stewardship operations. Contacts serve to provide and exchange information, improve work efforts, ensure proper reporting procedures, and facilitate daily operations.	National Park Service (DOI)	Rees, Margaret		10,325	10/31/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Custodianship of the Walking Box Ranch Property	This Agreement entered into by the Department of Interior, Bureau of Land Management (BLM) and the University of Nevada, Las Vegas (UNLV), is to collaboratively engage in protection of the existing structures and property at Walking Box Ranch and provide for the continued use of the facilities for scientific research and public use.	U.S. Bureau of Land Management	Rees, Margaret		1,099,994	9/11/2013
Clean Energy		UNLV		Limnological Assistance for Lake Mead National Recreation Area	Continue to provide technical assistance with specific aspects of limnological-related resource management stemming from the Limnological Assistance for Lake Mead National Recreation Area Task Agreement. Specifically, provide analysis of mercury contamination in peregrine falcons within Lake Mead National Recreation Area (Lave Mead NRA).	National Park Service (DOI)	Rees, Margaret		460,735	11/30/2012

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Clean Energy		UNLV		Nevada Interagency Volunteer Program: Helping Hands Across Public Lands - Phase II	The project is designed to recruit, train, manage, recognize, and retain community members to (1) conduct interagency conservation projects on federal public lands in Clark County, Nevada and (2) serve as voluntary workforce to support federal land management agency projects in Clark County, Nevada.	National Park Service (DOI)	Rees, Margaret		1,487,286	12/31/2012
Clean Energy		UNLV		Southern Nevada Agency Partnership, Cultural Site Stewardship Program - Steward Retention and Program Transfer	This is a collaborative project designed to recruit, train, manage, and retain community members to serve as a voluntary workforce to regularly monitor assigned cultural sites on federal public lands in Clark County, Nevada to include but not limited to Red Rock Canyon National Conservation Area, Sloan Canyon National Conservation Area, Spring Mountains National Recreation Area, Lake Mead National Recreation Area, Desert National Wildlife Complex and other lands managed by the Bureau of Land Management and other federal agencies. Cultural resource sites throughout the county continue to sustain damage from both natural and human elements, particularly as development presses against the boundaries of federal public lands. Site stewards are: (1) assigned one or more at-risk sites to visit on a regular basis (no less than monthly), (2) trained to record observations, and (3) required to report minor and major impacts to federal authorities. Under the direction of the Interagency Cultural Site Stewardship Team (ICSST), this project will transfer appropriate program information to the entity selected by the ICSST to manage the program. The National Park Service has been designated the lead agency for the ICSST. The program benefits cultural resources on public lands by providing the ability to monitor more at risk cultural sites. The public outreach through the Cultural Site Stewardship Program increases public awareness of the significant value of heritage resources and existing state and federal laws pertaining to historic preservation.	National Park Service (DOI)	Rees, Margaret		150,000	3/1/2013
Clean Energy		UNLV		Take Pride in America - Phase III	In partnership with the BLM the recipient will further develop the community-driven Take Pride in America partnership in southern Nevada to decrease litter and desert dumping through continued education, clean-ups, and comprehensive messaging campaign that was initiated in Southern Nevada Public Land Management Act (SNPLMA) Round 4 and 5 Conservation Initiative category. The project will continue to provide the necessary equipment required for litter collection including dumpsters and trash bags at key locations. Through continued Messaging, volunteer clean-ups, delivering of GIS data base and education the public lands will improve through stability of lands, watersheds and trash removal. Many of the troubled parcels are surrounded by private home owners and business. Continuing the implementation of Don't Trash Nevada will build further stewardship of public lands, and improve vacant lots and improve property values in these areas. The parcels will become safer to recreate on once trash is removed. The public is less likely to further damage sites when the attractive nuisance is removed, further improving public lands for the use of all public and other authorized uses.	U.S. Bureau of Land Management	Rees, Margaret		729,419	9/30/2012
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Walking Box Ranch Research and Training Center and Museum Project Planning and Design	This Agreement, entered into by the Department of Interior, Bureau of Land Management (BLM), and the University of Nevada, Las Vegas (UNLV), is to collaboratively engage in conceptual planning and design and the associated environmental assessments for the Walking Box Ranch Field Research and Training Center on the 40-acre "Headquarters Parcel" of the Walking Box Ranch, as well as planning and design for the restoration, enhancement, and protection of the historic ranch property buildings for the Walking Box Ranch Museum. The agreement will also facilitate consultation between the BLM and UNLV during the construction phase of the facilities.	U.S. Bureau of Land Management	Rees, Margaret		2,599,996	9/12/2013
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 3 (Ecological Change)	Serving as the UNLV member of the Ecological Change Steering Committee.	NSF EPSCoR	Riddle, Brett		25,394	8/31/2012
Clean Energy		UNLV		Southern Nevada District Office - Plant Conservation Program: Restoration and Youth	Provide a foundation for successful implementation of a collaboration between the University of Nevada, Las Vegas Wesley E. Niles Herbarium and the Task 2: Plant Taxonomic Identification and Herbarium Management, of the BLM SNDO Plant Conservation Program: Restoration and Youth. The overall goal of Task 2 is to provide opportunities to youth and interns to gain experience in plant identification and herbarium management in an academic setting in the Las Vegas Valley. The Niles Herbarium provides the unique and ideal academic setting for reaching these goals. However in order to do so, the Niles Herbarium must be staffed at a minimum level of an expert part-time plant curators and a collections manager. We seek funding to retain such a position through collaboration with the BLM.	U.S. Bureau of Land Management	Riddle, Brett		30,000	5/31/2016
Clean Energy		UNLV		Household Organization During the Pithouse Period at the Harris Site, Mimbres River Valley, New Mexico	This project will address two primary research topics: The first is household organization during the Pithouse period. The second research topic will examine the relationship between sedentism, subsistence strategies, and household organization.	National Science Foundation	Roth, Barbara		171,400	1/31/2013
Clean Energy		UNLV	Desert Research Institute	Solid State Organic PV Cells-Field Evaluation of the Cells - Task 2.6.2	This project will assess the field performance of dye sensitized solar cells a compared to the crystalline silicon based PV cells.	US Department of Energy	Sadineni, Suresh		71,421	9/30/2012
Clean Energy		UNLV		Technical and Financial Feasibility of Solar Projects in India	1. the evaluation of solar resources at various strategic locations of the country. 2. study the technical feasibility of various solar technologies 3. study the financial feasibility of the considered solar technologies for application in Indian conditions. 4. submit the final report at the end of project period.	Greenway Solar Pvt Ltd	Sadineni, Suresh		25,844	7/31/2012
Clean Energy		UNLV	Desert Research Institute	Biomass and Biofuel Production from Planet Species Suited for Nevada's Arid Environment - Task 1.4.2	The goals of this research are to develop the agronomic expertise to grow Grindelia squarros (gumweed) and Euphorbia lathyrus (gopherweed) in both Northern and Southern Nevada and develop the infrastructure to process these and other energy crop species for liquid fuel production and direct thermal conversion to electricity.	US Department of Energy	Shen, Jeffery		76,512	9/30/2012
Clean Energy		UNLV		WRKY Transcription Factors that Regulate Plant Responses to Drought Stress: Tools to Aid Plant Productivity Enhancement	Oligoarray analysis of rice drought-regulated genes. Analysis of rice promoters from drought-regulated WRKY genes using MEME, MotifSampler and other bioinformatic tools. Produce and analyze rice OsWRKY74 and -84 overexpression and knockdown mutants. Working with PD to correlate all results to determine drought-responsive WRKY genes and related cis-acting promoter elements, and to predict about drought responsive WRKY genes in other crop plants.	South Dakota State University	Shen, Jeffery		138,201	7/13/2012
Clean Energy		UNLV		Ais Giorkis: A Rare Upland Cypriot Neolithic Community: Testing Ground Penetrating Radar Results to Support Additional Research	The past 20 years have revolutionized our understanding of the early colonization the Mediterranean islands, with Cyprus playing a key role. Recent investigations have documented unexpectedly early Neolithic occupations that set the framework for the subsequent development of complex civilizations on the island. In particular, an early Neolithic occupation termed the Cypro-PPNB has extended the time depth of the Neolithic. Ais Giorkis is one of a handful of sites belonging to this period, and has been under investigation for several seasons; we anticipate another major campaign in 2012. To do so requires support from the National Science Foundation (NSF), which has funded much of the earlier investigation. This request to the Brennan Foundation is for a brief study in 2011 to enhance data robusticity for an NSF proposal.	Brennan Foundation	Simmons, Alan		5,000	5/24/2012
Clean Energy		UNLV	Nevada System of Higher Education	Biotic Processes Regulating the Carbon Balance of Desert Ecosystems - DOE FACE 2	Our overall objectives are to develop and apply modern statistical methods for synthesizing existing data from 10 years of the FACE experiment with new data from the final harvest/analyses within the context of process-based models developed by Kiona Ogle, University of Wyoming, who would join our team. This data-model synthesis approach will allow us to infer the impacts of elevated co2 in combination with natural precipitation variability, on multiple, interconnected ecosystem processes related to carbon, water and nutrient cycling across a range of time scales.	US Department of Energy	Smith, Stanley		1,053,187	9/14/2012

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Clean Energy		UNLV		Scratching the Surface at Joshua Tree National Park: Introducing Non-Vascular Plants to the Public - Bryophyte Component	This project is a collaborative effort between the University of Nevada, Las Vegas (UNLV) and National Park Service staff at Joshua Tree National Park (JOTR) and complements a concurrent CESU Task Agreement involving lichens in JOTR. Both projects are intended to contribute to further understanding of species distribution, habitat specificity, and conservation of bryophytes and lichens throughout the region. There are three objective for this project: (1) develop educational materials on bryophytes to be used in a variety of formats, including printable brochures, web-based photo gallery, poster exhibits, wayside exhibits, or other interpretive materials as deemed appropriate by the Interpretive Division; (2) develop a long-term monitoring project involving Citizen Scientists that measure bryophyte diversity and cover within JOTR; and (3) develop a printable checklist of the non-vascular species found within the park and update the NPSpecies database.	National Park Service (DOI)	Stark, Lloyd		44,433	4/1/2013
Clean Energy		UNLV		Web-Based Simulations for Communicating Sustainability Issues to Stakeholders	This research project addresses the need to improve public outreach and education about sustainability. Specifically, we aim to develop best practices for using web-based simulation models to communicate sustainability issues between policy-makers and the general public. This is an applied research project focused on Southern Nevada, but the results from the research will have broader implications. As an applied project, this has multiple benefits. First, it provides new technology and educational materials for engaging the public in discussions about sustainability in Southern Nevada. Second, the research results will help improve communication of complex environmental issues to the public.	U.S. Department of Energy	Stave, Krystyna		50,993	12/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 4 (Water) Faculty Start Up	Start up funds for new faculty hire. Setting up the highly instrumented transects in northern and southern Nevada. These transects will be used to assess the potential impact of global warming on water resources in Nevada.	NSF EPSCoR	Stephen, Haroon		96,750	8/31/2012
Clean Energy	Mining, Materials, and Manufacturing	UNLV	Desert Research Institute	Synthesis and Characterization of Novel (IV, II) VI Group Materials for Solar Energy Utilization - Task 2.7.2	The search for new sources of clean energy is rapidly becoming one of the most pressing technological challenges that we are facing today. Still development of inexpensive methods for synthesizing materials that demonstrate both visible light activity and high solar energy utilization along with stability is a challenge. This project will address this critical challenge by focusing on optical, electronic, and catalytic properties of crystalline/polycrystalline and amorphous galena doped by zinc thin films/composites/nano-particles.	US Department of Energy	Stolte, Wayne		100,863	9/30/2012
Clean Energy		UNLV		09-442 Rapid Automated Dissolution and Analysis Techniques for Radionuclides in Recycle Process Streams	The project will focus on identification of radiochemical separation procedures for the analysis of nuclear fuel processing samples that show the potential to be implemented on an automation platform.	Battelle Energy Alliance, LLC	Sudowe, Ralf		378,213	9/30/2012
Clean Energy		UNLV		Development of a Synthetic Debris for Nuclear Forensics - Task 41	The radiochemistry focused research efforts performed by the University of Nevada, Las Vegas under the National Center for Nuclear Security will have four components: Task 1: surrogate Material synthesis and characterization. Task 2: Utilize collected Trinitite data. Task 3: Activation product analysis. Task 4: Rapid radiochemical separations. These efforts will be coordinated through the UNLV Radiochemistry program and exploit existing expertise in chemical speciation, radioelement materials synthesis, compound characterization, separations and radioisotope counting techniques. Materials will be prepared and characterization to provide data for the development of standards, rapid separations and crucial nuclear data. Irradiations will be performed in conjunction with NSTec utilizing their neutron sources, primarily supports Tasks 1 and 3. It is anticipated collaborations with DOE laboratories within the research areas will be pursued. The project will occur over a 36 month time frame.	National Security Technologies	Sudowe, Ralf		227,942	9/20/2012
Clean Energy		UNLV		Neutron Capture Measurements on Tm-171 and Pm-147	The objective of the proposed project is to study neutron capture reaction on Tm 171Tm and 147Pm using the Detector for Advanced Neutron Capture Experiments (DANCE) at the Manuel Lujan Jr Neutron Scattering Center at the Los Alamos Neutron Science Center (LANSCE) and to measure the respective neutron capture cross sections for these isotopes.	National Nuclear Security Administration	Sudowe, Ralf		600,000	1/10/2013
Clean Energy		UNLV		Efficient Numerical Techniques of Two-Phase Transport Model in the Cathode of Hydrogen Polymer Electrolyte Fuel Cell - ARRA	The purpose of this project is to develop advanced efficient computational techniques in order to perform efficient, accurate and state of the art simulations for two-phase transport model in the cathode of hydrogen polymer electrolyte fuel cell (FEPC).	National Science Foundation	Sun, Pengtao		90,000	8/31/2013
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Assessment of Desert Bighorn Sheep on Desert National Wildlife Refuge, Nevada: Phase 1	The following activities are added - Mule deer will be collared with GPS transmitters to allow researchers to estimate the numbers of mule deer on the Sheep Range and monitor their movements and predation/mortality events. This will help understand how mountain lions are choosing deer versus bighorn sheep as prey.	U.S. Fish & Wildlife Service	Thompson, Daniel		221,718	12/31/2014
Clean Energy		UNLV		Spring Mountain Butterfly Life History and Autecology Studies	Additional funding for additional fieldwork - more surveying of the south loop.	U.S. Forest Service	Thompson, Daniel		523,802	3/31/2013
Clean Energy		UNLV		CAREER: Protein Metabolism in Mammalian Hibernation	1) Describe the mechanism of translational arrest in hibernators through use of an in vitro translation assay that will allow for direct assessment of initiation and elongation as well as the role of IRES-mediated initiation of translation under the conditions of torpor. 2) Use available ground squirrel cDNA microarrays to determine what genes are actively being transcribed and/or translated during the various stages of the torpor cycle. 3) Determine the mechanism of ubiquitin-dependent proteolytic regulation during torpor through use of in vitro proteolysis and ubiquitylation assays. 4) Continue participation in the development of undergraduate and graduation curricula a UNLV and encouragement of participation in research by both undergraduate and graduate students. 5) Develop a cable-access television program through collaboration with other UNLV entities that will serve to promote science literacy in elementary school children by introducing them to the native flora and fauna of Southern Nevada.	National Science Foundation	van Breukelen, Frank		439,926	4/30/2013
Clean Energy		UNLV		Long Term Ecological Research (LTER)	During this 6 year grant LTER4 Walker will complete the following: 1. Finish writing all data-based Puerto Rico papers (about 5 remain)2. Complete edited book linking restoration and succession now begun with Springer. 3. Complete book written with R. del Moral (Cambridge) about how humans interact with disturbance. 4. Edit a book on managements/science conflict with Lugo and other co-editors. This might involve a symposium to bring potential chapter authors together. Probably with Springer. 5. Write a book on island biology with Peter Bellingham. 6. Contribute to landslide symposium in China. 7. Participate in annual meetings in Puerto Rico.	University of Puerto Rico	Walker, Lars		55,000	11/30/2012
Clean Energy		UNLV		Collaborative Research: Thermochronology of Dominant Thrust Sheets in the Sevier Fold-Thrust Belt, Utah and Nevada: Determining Fault Timing and Slip Rates	This project will provide extensive thermochronology data sets for parts of the Sevier belt that will be made available in digital format and useful for comparison to other areas. Results of this study will improve understanding of fault slip and thermal histories of fold-thrust belts and relation to hydrocarbon maturation.	National Science Foundation	Wells, Michael		219,562	2/28/2014
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Horseshief Spring Site Characterization	This agreement establishes an archaeological and ethnographic research program for the public lands managed by the Needles Field Office in California. The program will document human occupation in the region.	U.S. Bureau of Land Management	Winslow, Diane		34,000	8/31/2014
Clean Energy		UNLV		Evaluation of Control Technology for Invasive Quagga Mussels	This project will utilize experimental techniques and culturing methodology specific only to quagga mussels and evaluate the effects of control methodologies by: 1. Evaluation of the effects of UV radiation on larval quagga mussels at Lake Mead Nevada. 2. Evaluation of the effects of pulse pressure technology on adult and larval quagga mussels. 3. Develop and recommend other control methodologies as a joint effort between the USGS and the University of Nevada, Las Vegas. 4. Develop graduate student mentoring opportunities focused on control of aquatic invasive species in particular the quagga mussel invasion of the Lower Colorado River.	U.S. Geological Survey	Wong, David		40,012	9/14/2012

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Clean Energy	Tourism, Gaming and Entertainment	UNLV		Hot Water Decontamination of Watercrafts	We propose a scientific investigation of pressurized hot water applied to watercraft as a decontamination practice to determine minimal thresholds (temperature and duration) for 100% zebra mussel mortality. We also propose to systematically investigate the efficacy of pressurized water in removing quagga/zebra mussel removal.	U.S. Fish & Wildlife Service	Wong, David		100,378	7/31/2012
Clean Energy		UNLV		Phase 2: Preventing Quagga Mussel Colonization in Lake Mead: Effectiveness of Low Doses of EarthTec in Different Seasons	Our previous study on the lethal effects of EarthTec on quagga mussels demonstrates that EarthTec is an effective agent when used to kill invasive quagga mussel adults, juveniles, and veligers (Watters et al. 2011). Although lower doses (1 ppm) could significantly reduce colonization of quagga mussel veligers, this dose could not completely prevent colonization in December 2010. A separate experiment was conducted in January 2011, and it was found that a dose between 2 and 3 ppm was able to prevent colonization. However, the experiments were conducted in a period when the veligers are most competent in colonization in Lake Mead (Gerstenberger et al 2011). Therefore, 1 to 2 ppm of EarthTec may still be able to prevent colonization in other seasons when veligers are less competent. Since the veliger dynamics in Lake Mead vary by seasons, the proposed study will determine the lowest dose of EarthTec that can result in zero colonization at different seasons. Therefore, the present study can provide a cost-effective (minimum dose of EarthTec to prevent colonization of quagga mussels) and environment-friendly management tool for those agencies that are interested in dealing with invasive quagga mussels by using EarthTec. It will take 18 months to complete the entire project which includes conducting the experiment, data interpretation and analysis, and drafting the report.	Earth Science Laboratories, Inc	Wong, David		70,005	2/28/2013
Clean Energy		UNLV		Preventing Quagga Mussel Colonization in Freshwater Ecosystem: Antifouling Effect of Phenylcapsaicin	By using different concentrations of phenylcapsaicin, this proposed project is to find out: 1) If phenylcapsaicin can result in zero colonization of quagga mussels; 2) The minimum dose of phenylcapsaicin that results in zero colonization of quagga mussels; 3) The effectiveness of phenylcapsaicin at different water depths; 4) The duration of the effectiveness of phenylcapsaicin; 5) The effectiveness comparison between phenylcapsaicin and capsaicin.	aXichem AB	Wong, David		54,175	10/31/2013
Clean Energy		UNLV		Development of Ultrafiltration Membrane-Separation Technology for Energy-Efficient Water Treatment and Desalination Process	This proposal outlines a research plan to develop new polymeric membrane materials that will significantly enhance our understanding of membrane fouling mechanism and advance the development of anti-fouling membranes. The principal investigator proposes a new strategy to synthesize robust polysulfone membrane materials functionalized with various ionic groups and concentrations.	U.S. Department of Energy	Yim, Woosoon		25,000	9/14/2015
Clean Energy		UNLV		Hydrological Database Interface	We intend to construct a MySQL database which stores hydrological and other monitoring data related to WIPP and to build a front end by which to upload, verify and export the data.	Sandia National Laboratories	Yim, Woosoon		60,912	12/31/2012
Clean Energy		UNLV		Novel Technologies for Best Management of Nonpoint Sources Pollution	The project shall include performance of column and small-scale flow-tank experiments, theoretical investigations of reaction and dynamics of solutes in variable forms and structures of polymeric porous matrices, and integration of experimental and theoretical works through numerical analyses and illustrative pilot-scale simulations, and involve the exchange of scientific personnel, sharing and exchanging of data and scientific information, and scientific research.	Korea Institute of Geoscience and Mineral Resources	Yu, Zhongbo		42,180	6/30/2014
Clean Energy		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 2	The purpose of Task 2 is to serve in the committee of climate modeling component for managing and overseeing the climate modeling research in the project.	NSF EPSCoR	Yu, Zhongbo		40,593	8/31/2012
Clean Energy		UNLV	Nevada System of Higher Education	From Macro to Micro/Nano: Career Planning for High School Students Towards a Brighter Future in Biomedical Engineering, Renewable Energy, and Microelectronics	Micro/Nanotechnology which covers a variety of subjects including chemistry, physics, material, engineering and biology has the potential to drastically improve electronics, medicine, energy harvesting/storage and beyond. As faculty working in these fast growing areas, we feel that high school students, especially those from Clark County School District, should be provided an opportunity to learn the basics, academic requirement and job prospect of micro/nano technologies and their applications, at the time when they are considering to go to college. Such knowledge shall help the students make an informed decision to pursue relevant college degrees in engineering or science which lead to rewarding careers that are beneficial to the students individually and to the state of Nevada in its pursuit of diversified economy. To broaden interests of high school students to attend colleges, we propose to develop a community outreach program that involves four major activities (1) training high school science teachers to acquire relevant knowledge; (2) hosting lab tours and workshops at either participating high school campuses or at UNLV main campus; (3) organizing a summer camp for high school students; and (4) creating and regularly updating an interactive website that connects university educators and high school students. Prompt interactions among high school students and the faculty will help attract more students to pursue advanced degrees. Each activity laid out above will be assessed and measured by a professional examiner so that the program can better serve students and the community.	US Department of Education	Zhao, Hui		45,000	9/29/2012
Clean Energy		UNLV		Studies of Streaming Potentials Generated by a Two-Phase Flow with Applications to Detecting Water Encroachment Towards Oil Wells	The central goal of this proposal is to gain fundamental knowledge necessary to design a novel technique which monitors water approaching oil production wells using electrokinetic phenomena through a combined theoretical and experimental approach.	American Chem. Society - Petroleum Research Fund	Zhao, Hui		100,000	8/31/2013
Clean Energy		UNLV		Towards Economically Competitive Nanocrystal-Based Solar Cells Through a Novel Nano Fabrication Technology Using Electric Fields	The central goal of this research is to design novel nanostructured architectures and establish the fundamental principles that will enable novel assembling processes towards massive production of the next-generation low-cost, high efficiency nanocrystal-based solar cells.	U.S. Department of Energy	Zhao, Hui		46,395	6/30/2012
Clean Energy	Agriculture	UNR		NVREC BIOMASS & BIOFUEL PRODUC	Develop the agronomic expertise to grow these plants in both Northern and Southern Nevada and to develop the infrastructure to process these and other energy crop species for liquid fuel production and direct thermal conversion to electricity.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	SHINTANI,DAVID K.		76,248	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNR		NANOSTRUCTURED PROTON EXCHANGE	Synthesize and characterize a composite polyimide (PI) matrix proton exchange membrane with heteropolyacid proton conductors capable of operation at elevated temperatures and low humidities common to Nevada.	Department of Energy/Alliance Sustainable Energy	FUCHS,ALAN		330,436	9/12/2012
Clean Energy	Mining, Materials, and Manufacturing	UNR	UNIVERSITY OF UTAH; UNIVERSITY OF IDAHO	CNTR FOR MATERIALS RELIABILITY	Research focuses on materials performance during spent fuel reprocessing by molten salt electrolysis and consists of four tasks: 1. electrochemical reprocessing of spent fuels, 2. first principle modeling of nuclear fuels, 3. immobilization of radionuclides by titanate nanotubes, and 4. nanotube oxide heterostructures for energy conversion.	Department of Energy	CHIDAMBARAM,DEVICHARAN	VIKAS TOMAR	2,681,400	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNR	CSIRO; TDA RESEARCH INC	AMORPHOUS ALLOY MEMBRANES	Preparation techniques of low cost membranes for hydrogen separation used in energy generation.	Department of Energy	CHANDRA,DHANESH	TED B FLANAGAN	1,163,596	9/30/2012
Clean Energy	Mining, Materials, and Manufacturing	UNR		ADVANCED ENERGY STORAGE	Develop new strategies and battery materials with three to four times more energy than the current capacity of known thermal energy storage materials.	Intel Corporation	CHANDRA,DHANESH	KRISHNAN RAJA	420,000	2/28/2013
Clean Energy	Mining, Materials, and Manufacturing	UNR		PROTON EXCHANGE MEMBRANES	Synthesize, characterize and evaluate novel proton exchange membranes for fuel cells using UNR's recently synthesized supramolecular proton exchange membranes.	Department of Defense, Department of the Army	FUCHS,ALAN		400,000	9/15/2012
Clean Energy		UNR	DRI	HYPERSPECTRAL IMAGE DATA	Radiation signatures related to the nuclear fuel cycle are to be investigated and identified, resulting in development of enabling technologies for nonproliferation remote sensing.	Department of Energy	CALVIN,WENDY M.		810,000	9/14/2012

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Clean Energy		UNR		ARRA: EGS EXPLORATION	A non-invasive exploration methodology integrating geology, geophysics, and geochemistry for identifying potential drilling targets for Engineered Geothermal Systems is to be developed and tested.	Department of Energy/Altarock Energy Incorporated	KARLIN,ROBERT		78,141	9/1/2012
Clean Energy		UNR	LAWRENCE BERKELEY NATIONAL LABORATORIES	ARRA: GEOTHERMAL MODEL FOR EGS	Develop a complex model of Engineered Geothermal Systems to more accurately predict how new fluid technologies would perform in a reservoir. Application of the model may discover new solutions to heat extraction from an enhanced fracture system of Engineered Geothermal Systems.	Department of Energy	DANKO,GEORGE		1,278,070	1/31/2013
Clean Energy		UNR		ARRA: NATL GEOTHERMAL DATA SYS	Work plan 1. Digitize records, including electrical logs, from all geothermal explorations and production wells in Nevada. 2. Log, photograph, and selectively sample for archiving available core from geothermal exploration and production wells in Nevada. 3. Digitize annual production statistics from power plants in Nevada 4. Develop metadata on any new electronic records to NGDS formats. 5. Convert existing metadata to NGDS standards. 6. Add to NBMG files with additional paper records, digitize these, and add them to the NBMG database and GBCGE geothermal database, which is feeding into the NGDS under separate funding. 7. Maintain the Western Region server hub.	Department of Energy/Arizona Geological Survey	PRICE,JONATHAN G.		371,688	5/23/2013
Clean Energy		UNR		ARRA: NATL GEOTHERMAL DATABASE	The Center will update and expand its geothermal collection, to ensure its continued usefulness. Center is advancing on two fronts 1) a consortium industry partners, and 2) participation in the DOE National Geothermal Database proposal, co-led by Boise State University.	Department of Energy/Boise State University	SHEVENELL,LISA A.		308,978	5/31/2014
Clean Energy		UNR	GFZ	SAN EMIDIO GEOTHERMAL FIELD	A modeling study to integrate all available geo-data into one coherent 3D model allowing for a complex analysis and discrimination of dilatational fault segments.	Department of Energy/United States Geothermal Incorporated	FAULDS,JAMES E.		108,254	4/30/2012
Clean Energy		UNR		ARRA: NATL GEOTHERMAL TASK 8	Enhance the accuracy and availability of Nevada's geothermal database. All data, including electrical logs, from all geothermal explorations and production wells in Nevada will be digitized. Logs, photographs, and selected core samples from geothermal exploration and production wells in Nevada will be archived. Annual production statistics from power plants in Nevada will be assembled and digitized. Metadata on any new and existing electronic records will be converted to NGDS standards.	Department of Energy/Arizona Geological Survey	PRICE,JONATHAN G.		254,202	5/23/2013
Clean Energy		UNR		HIDDEN GEOTHERMAL SYSTEMS	Utilize the sciences of magnetotellurics, soil gas chemistry, and structural analysis to find previously undiscovered geothermal systems.	Department of Energy/University of Utah	FAULDS,JAMES E.		77,215	9/30/2012
Clean Energy		UNR		ARRA: EVAL OF PLPT GEOTHERMAL	Integrate state-of-the-art exploration technologies with geologic framework and reservoir modeling to determine the efficacy of future geothermal production at the Astor Pass Site within the Pyramid Lake Paiute Reservation.	Department of Energy/Pyramid Lake Paiute Tribe	LOUIE,JOHN N.		903,619	12/31/2012
Clean Energy		UNR		ARRA: EGS EXPLORATION	Develop and test a unique non-invasive exploration methodology by integrating geology, geophysics, and geochemistry to identify potential drilling targets for Engineered Geothermal Systems.	Department of Energy/Altarock Energy Incorporated	TIBULEAC,ILEANA M.		146,708	9/1/2012
Clean Energy		UNR		GEOTHERMAL RESOURCE	The Great Basin Center for Geothermal Energy will (1) produce a web-based, stakeholder geothermal information system for Nevada geothermal data relevant to assessing and developing geothermal resources, and (2) manage an applied research program to find relevant, peer reviewed geothermal research addressing the goal of increasing applications of geothermal energy in the Great Basin. Workshops will be conducted to inform industry of the availability of this knowledge resource base.	Department of Energy	CALVIN,WENDY M., LOUIE, JOHN N., SHEVENELL, LISA A., FAULDS, JAMES E., LECHLER, PAUL J., BLEWITT, GEOFFREY, SHEVENELL, LISA, A., AREHART, GREG B., COOLBAUGH, MARK F., BELL, JOHN W., TARANIK, JAMES V.	ANNE ELIZABETH EGGER	5,794,147	12/31/2012
Clean Energy		UNR		RENEWABLE ENERGY CNTR-MGMT	Re-enforce the application of "renewable energy related technologies focusing on geothermal" specific to northern Nevada.	Department of Energy/Midwest Research Institute, National Renewable Energy Laboratory	CALVIN,WENDY M., KIM, KWANG J.		750,000	5/15/2012
Clean Energy		UNR		TASK C: GEOTHERMAL-LIFE CYCLE	Develop multiple projects related to solar and geothermal energy. A low cost, high capacity, visible light efficient, flexible solar cell will be developed and tested. Hydrogen generation by natural gas decomposition using molten salt solar thermal storage will be investigated. Existing wastewater infrastructures will be exploited to develop new sources of renewable fuels. A chemically promoted mechanical dewatering of wastewater sludge will also be developed. Surveys of shallow temperature and soil gas will be conducted. surveys. An analysis of the life Cycle for geothermal energy exploration and products will be performed. Effective outreach training and workforce development activities will be conducted.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	CALVIN,WENDY M., MISRA, MANORANJAN, SUBRAMANIAN, VAIDYANANTHAN		546,224	9/30/2012
Clean Energy		UNR		ARRA: STRUCT CONTROLS/EGS&CONV	Successful exploration strategies in extended terrenes will be developed by characterizing structural controls of engineered geothermal systems of candidate and conventional geothermal reservoirs in the Great Basin.	Department of Energy	FAULDS,JAMES E.		935,505	1/31/2013
Clean Energy		UNR		EXPANDING GEOTHERMAL USE	The Great Basin Center for Geothermal Energy (GBCGE) will promote research and utilization of geothermal resources in the Great Basin based on a library of peer reviewed research. The GBCGE will also hold stakeholder workshops and training and outreach activities, assist in the University of Nevada, Reno renewable energy curriculum, and maintain data and other information on a public web site.	Department of Energy	CALVIN,WENDY M.		1,000,000	8/31/2012
Clean Energy		UNR		HYDROCARBON THERMOCHEMISTRY...	Develop ion chemistry techniques for enhancing the determination of thermochemical values for neutral hydrocarbon radicals significantly influencing combustion kinetics.	Department of Energy	ERVIN,KENT M.		880,951	12/31/2012
Clean Energy		UNR		ELECTRON INTERACTIONS	Investigations of highly complex multi-electron interactions governing inelastic processes involving positive ions in plasma environments, such as those occurring in stellar cores and atmospheres, x-ray lasers, thermonuclear fusion reactors and materials processing discharges.	Department of Energy	PHANEUF,RONALD A.		1,552,000	1/31/2013
Clean Energy		UNR		INERTIAL CONFINEMENT FUSION	Model and analyze the aluminum line absorption spectra recorded in shock heating and compression experiments of aluminum thin layers embedded in plastic slab targets including both the effects of Stark broadening and dense plasma shift in absorption line shapes.	Department of Energy/University of Rochester	MANCINI,ROBERTO C.		374,385	9/30/2012
Clean Energy		UNR		PLASMA-WALL INTERACTION	Characterize the basics of the interaction of dense magnetized plasma with a metal wall, under conditions relevant to fusion energy science.	Department of Energy	BAUER,BRUNO S.		1,331,392	9/30/2012
Clean Energy		UNR	TEXAS A&M-TEXAS ENGINEERING EXPERIMENT STATION	SIMULATION/NUCLEAR ENGINEERING	Develop a novel mathematical methodology to address the lack of consistency of the nonlinear simulation and the low accuracy of the spatio-temporal discretization in the modeling of nuclear systems.	Department of Energy/Idaho National Laboratory, Battelle Energy Alliance	SOLIN,PAVEL		587,382	9/30/2012
Clean Energy		UNR	UoU	PHOTO-ELECTROCHEMICAL GENER...	Utilization of a novel hybrid titania nanotube arrays to generate hydrogen from water using sunlight.	Department of Energy	MISRA,MANORANJAN		2,720,000	9/30/2012
Clean Energy		UNR	UNIVERSITY OF UTAH	NEXT BIODIESEL FROM FOOD WASTE	Production of high quality biodiesel from alternative livestock feeds in conjunction with a heterogeneous catalytic process and also develop a process to utilize the glycerin by-product in as economically attractive energy source.	Department of Energy	MISRA,MANORANJAN		1,000,000	8/31/2012

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Clean Energy		UNR		NVREC SENSITIZED SOLAR CELLS	Engineering techniques to address unique development of solar cells.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	SUBRAMANIAN,VAIDYANATHAN, KING, BENJAMIN T., ALPUCHE AVILES, MARIO A., GREINER, MILES, CORONELLA, CHARLES, KIM, KWANG J.		457,013	9/30/2012
Clean Energy		UNR		BANDGAP/SOLAR ENERGY CONVERSION	Develop models for driven synthesis of photocatalysis for visible light water splitting reactions as applied to solar energy conversion.	National Science Foundation	SUBRAMANIAN,VAIDYANATHAN		256,785	7/31/2014
Clean Energy		UNR		HYDROTHERMAL COND/CORN STOVER	UNR will design a reactor for ZERE Energy and Biofuels, Inc., and conduct a biomass inventory in the state of Nevada.	Department of Energy/Idaho National Laboratory, Battelle Energy Alliance	CORONELLA,CHARLES		50,000	11/30/2012
Clean Energy		UNR		ROOFTOP WIND PANEL SYSTEMS	Conduct an analytical and experimental investigation of novel rooftop wind panel systems with horizontal Savonius and Darrieus rotors, and power electronic on-grid and off-grid interfaces.	National Science Foundation	TRZYNADLOWSKI,ANDRZEJ M.		216,375	8/31/2012
Clean Energy		UNR		ROBOTIC CATHETERIZATION	A robotic catheter using Ionic Polymer-Metal Composite for renewable energy applications is being developed and evaluated.	National Science Foundation	KIM,KWANG J.		204,103	5/31/2013
Clean Energy		UNR		NEVADASAT	Collaborating eight institutions will develop courses to support new curriculum in sustainability and energy systems.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	WANG,ERIC L.		35,000	6/30/2012
Clean Energy		UNR		MICROFLUIDICS FOR MICROALGAE	A microfluidic based sensor for large-scale microalgae culturing for use in bio-diesel fuel production will be developed.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	GEIGER,EMIL J.		19,994	5/4/2012
Clean Energy		UNR		NSF GK-12 E-FELLOWSHIP PROGRAM	Prepare graduate research fellows (E-Fellows) to become future STEM leaders in energy technologies and energy awareness through partnership with local middle and high schools.	National Science Foundation	LEANG,KAM K.		1,212,182	8/31/2014
Clean Energy		UNR		INTEGRATED SUSTAINABILITY INIT	Reduction of the environmental impact of the University of Nevada, Reno (UNR) campus by transformation of infrastructure and institutional practices. and development of collaborative programs to reduce consumption and waste.	Department of Energy	COLLOPY,MICHAEL W.		951,500	9/30/2012
Clean Energy		UNR		TASK B: BIOFUELS	Design a low cost, high capacity, visible light efficient, flexible solar cell and additionally research Hydrogen Generation by Natural Gas Decomposition Using Molten Salt Solar Thermal Storage. Exploit existing wastewater infrastructure to develop new sources of renewable fuels and develop chemically promoted mechanical dewatering of wastewater sludge. Create the Outreach Training and Workforce Development.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	CUSHMAN,JOHN C.		204,833	9/30/2012
Clean Energy		UNR		NVREC MICROALGAE BIOFUEL PROD	Test municipal wastewater for its suitability for use in growing microalgae as a biofuel feedback.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	CUSHMAN,JOHN C.		74,982	9/30/2012
Clean Energy		UNR		NVREC MICROALGAE BIOFUEL FEEDS	Test municipal wastewater for its suitability for use in growing microalgae as a biofuel feedback.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	GUSTIN,MAE S.		53,093	9/30/2012
Clean Energy		UNR		CARBON, CLIMATE AND FUEL	Compare and evaluate long-term impacts of fire suppression, prescribed fire, and fuel treatments on the long-term potential for Lake Tahoe forests to sequester carbon or otherwise contribute to reducing greenhouse gas emissions in a global change context.	Department of Agriculture, Forest Service/Portland State University	WEISBERG,PETER J.		66,068	7/31/2012
Clean Energy		UNR		PGE GEOTHERMAL LEASE AREAS	Identify and conduct structural analyses of faults in the East Fork, Hood Riverlease block to provide a relatively quick and inexpensive approach to determine whether (or where) further evaluation of these faults is warranted.	Optim Incorporated	CASHMAN,PATRICIA H.		47,287	4/30/2012
Clean Energy		UNR		BRADY'S GEOTHERMAL STUDY	Enhance the characterization of the Brady Geothermal Field by conducting a comprehensive synthesis of geophysical and geological data sets along with detailed structural and 3D modeling studies.	Ormat Technologies Inc.	FAULDS,JAMES E.		52,053	12/31/2012
Clean Energy		UNR		GIS DATA INTEGRATION & FIELD	Computer-based algorithms will be designed to enhance and process the acquired imagery to better emphasize geothermal field anomalies.	Imageair Incorporated	COOLBAUGH,MARK F.		43,064	12/31/2012
Clean Energy		UNR		CONVERSION OF WASTE FEEDSTOCKS	Develop and validate a reliable mathematical model of a biomass reactor.	Pacific Renewable Fuels & Chemicals	CORONELLA,CHARLES		5,000	3/31/2012
Clean Energy		DRI		Renewable Energy Center (NV)	Renewable Energy Center (NV)	Department of Energy	Ross, Mr. Peter D		690,000	3/31/2012
Clean Energy		DRI		DRI Renewable Energy Center REEF Phase II	DRI Renewable Energy Center REEF Phase II	Department of Energy Federal-Other	Hoekman, Dr. Kent		546,587	7/31/2011
Clean Energy		DRI	UNR/UNLV/CE Construction	Nevada Renewable Energy Consortium	Nevada Renewable Energy Consotium	Department of Energy Federal-Other	Gertler, Dr. Alan W		1,981,614	12/31/2012
Clean Energy		DRI	UNR	DOE Algal-Based Renewable Energy for Nevada	DOE Algal-Based Renewable Energy for Nevada	Department of Energy Federal-Other	Fritsen, Dr. Chris H		1,651,402	10/31/2011
Clean Energy		DRI		Amargosa Desert Vadose Zone Research - USGS Student Services	Amargosa Desert Vadose Zone Research - USGS Student Services	DOI - US Geological Survey Federal-Other	Pohll, Dr. Greg M		45,294	8/14/2011
Clean Energy		DRI		Aquatic Macroinvertebrate and their Habitats; Monitoring Development and Evaluation	Aquatic Macroinvertebrate and their Habitats; Monitoring Development and Evaluation	DOI - Fish and Wildlife Federal-Other	Sada, Dr. Don W		50,000	9/1/2013
Clean Energy		DRI		Biomass Burning, Dust, Sea Salt, Volcanic & Pollution Aerosols in the Arctic during the Last 2 Millennia: High Resolution Aerosol Records from NEEM & an Array of Archived Ice Cores	Biomass Burning, Dust, Sea Salt, Volcanic & Pollution Aerosols in the Arctic during the Last 2 Millennia: High Resolution Aerosol Records from NEEM & an Array of Archived Ice Cores	National Science Foundation Federal-Other	McConnell, Dr. Joe R		499,090	8/31/2012
Clean Energy		DRI		Borrego Springs Alluvial Fan Active and Inactive Area Mapping	Borrego Springs Alluvial Fan Active and Inactive Area Mapping	Bureau Veritas North America, Inc Businesses	Miller, Ms. Julie J		67,820	6/30/2012

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Clean Energy		DRI		Canal lining and afforestation to prevent raised groundwater tables and field salinization in Khorezm, Uzbekistan	Canal lining and afforestation to prevent raised groundwater tables and field salinization in Khorezm, Uzbekistan	NSF/U.S. Civilian Research and Development Foundation Other Non Profit Organizations	Lutz, Ms. Alex		22,499	2/9/2013
Clean Energy		DRI		CMG Collaborative Research: Tempered Stable Models for Preasymptotic Pollutant Transport in Natural Media	CMG Collaborative Research: Tempered Stable Models for Preasymptotic Pollutant Transport in Natural Media	National Science Foundation Federal-Other	Zhang, Mr. Yong		315,809	8/31/2013
Clean Energy		DRI		Collaborative Research: Aerosol Concentrations, Sources and Transport Pathways within the Arctic Polar Dome during Recent Millennia	Collaborative Research: Aerosol Concentrations, Sources and Transport Pathways within the Arctic Polar Dome during Recent Millennia	National Science Foundation Federal-Other	McConnell, Dr. Joe R		622,124	8/31/2013
Clean Energy		DRI		Collaborative Research: Analysis of McCall Glacier Ice Core and Related Modern Process Studies	Collaborative Research: Analysis of McCall Glacier Ice Core and Related Modern Process Studies	National Science Foundation Federal-Other	McConnell, Dr. Joe R		231,015	8/31/2011
Clean Energy		DRI		Collaborative Research: Climate, Ice Dynamics and Biology using a Deep Ice Core from the West Antarctic Ice Sheet Ice Divide	Collaborative Research: Climate, Ice Dynamics and Biology using a Deep Ice Core from the West Antarctic Ice Sheet Ice Divide	National Science Foundation Federal-Other	Taylor, Dr. Ken C		355,118	7/31/2011
Clean Energy		DRI		Collaborative Research: Cyberinfrastructure Development for the Western Consortium of Idaho, Nevada, and New Mexico	Collaborative Research: Cyberinfrastructure Development for the Western Consortium of Idaho, Nevada, and New Mexico	National Science Foundation Federal-Other	Dana, Dr. Gayle L		460,534	8/31/2012
Clean Energy		DRI		Collaborative Research: Establishing the Chronology and Histories of Accumulation and Ice Dynamics for the WAIS Divide Core	Collaborative Research: Establishing the Chronology and Histories of Accumulation and Ice Dynamics for the WAIS Divide Core	National Science Foundation Federal-Other	Taylor, Dr. Ken C		99,995	6/30/2015
Clean Energy		DRI		Collaborative Research: Ice core paleoclimate records from Combatant Col, British Columbia, Canada	Collaborative Research: Ice core paleoclimate records from Combatant Col, British Columbia, Canada	National Science Foundation Federal-Other	McConnell, Dr. Joe R		210,236	8/31/2012
Clean Energy		DRI		Collaborative Research: Integrated High Resolution Chemical and Biological Measurements on the Deep WAIS Divide Core	Collaborative Research: Integrated High Resolution Chemical and Biological Measurements on the Deep WAIS Divide Core	National Science Foundation Federal-Other	McConnell, Dr. Joe R		809,174	12/31/2013
Clean Energy		DRI		Collaborative Research: Investigating Upper Pleistocene Rapid Climate Change using Continuous, Ultra-High-Resolution Aerosol and Gas Measurements in the WAIS Divide Ice Core	Collaborative Research: Investigating Upper Pleistocene Rapid Climate Change using Continuous, Ultra-High-Resolution Aerosol and Gas Measurements in the WAIS Divide Ice Core	National Science Foundation Federal-Other	McConnell, Dr. Joe R		456,000	8/31/2015
Clean Energy		DRI		Comprehensive Evaluation of the Geothermal Resource Potential within the Pyramid Lake Paiute Reservation	Comprehensive Evaluation of the Geothermal Resource Potential within the Pyramid Lake Paiute Reservation	DOE/Pyramid Lake Paiute Tribe Other Domestic Governments	Pohll, Dr. Greg M		1,021,425	12/31/2012
Clean Energy		DRI		Consultant Services for Smoky Canyon Mine	Consultant Services for Smoky Canyon Mine	BLM/American Geotechnics Businesses National Science Foundation	Albright, Mr. Bill H		108,200	8/31/2012
Clean Energy		DRI	UC Merced, UC Davis	Continued Core Atmospheric and Snow Measurements at the Summit, Greenland Environmental Observatory	Continued Core Atmospheric and Snow Measurements at the Summit, Greenland Environmental Observatory	National Science Foundation Federal-Other	McConnell, Dr. Joe R		1,254,266	6/30/2014
Clean Energy		DRI	Nevada State Div of Water Resources/Univ of Idaho	Desert Terminal Lakes - Water Resources Evaluation Program	Desert Terminal Lakes - Water Resources Evaluation Program	DOI - Bureau of Reclamation Federal-Other	Thomas, Dr. Jim M		3,300,000	12/31/2013
Clean Energy		DRI	Univ of Idaho	Developing Historical and Future Agricultural Evapotranspiration and Irrigation Water Requirements	Developing Historical and Future Agricultural Evapotranspiration and Irrigation Water Requirements	DOI - Bureau of Reclamation Federal-Other	Huntington, Mr. Justin L		267,623	9/30/2013
Clean Energy		DRI		Development of a Regional Water Management Plan for the Carson River Watershed	Development of a Regional Water Management Plan for the Carson River Watershed	DOI-Bureau of Reclamation/Carson Water Subconservancy District Nevada Local Governments	Lutz, Ms. Alex		14,305	2/28/2012
Clean Energy		DRI		Evaluation of Landfill Conditions and Potential Impacts on Water Resources in Rural Clark County, NV	Evaluation of Landfill Conditions and Potential Impacts on Water Resources in Rural Clark County, NV	US Department of Agriculture Federal-Other	Pohlmann, Mr. Karl F		143,300	9/30/2012
Clean Energy		DRI		Evaluation of Nearshore Ecology and Aesthetics - C/S	Evaluation of Nearshore Ecology and Aesthetics - C/S	USDA - Forest Service Federal-Other	Susfalk, Mr. Rick B		101,818	9/30/2012
Clean Energy		DRI		Expertise in Support of Administrative Hears on SNWA Water-Right Applications in Spring, Cave, Dry Lake, and Delamar Valleys	Expertise in Support of Administrative Hears on SNWA Water-Right Applications in Spring, Cave, Dry Lake, and Delamar Valleys	Southern Nevada Water Authority Nevada Local Governments	Thomas, Dr. Jim M		95,000	12/31/2011
Clean Energy		DRI		Final Design and Restoration of Area A of Middle Rosewood Creek	Final Design and Restoration of Area A of Middle Rosewood Creek	DOI-Bureau of Reclamation/Nevada Tahoe Conservation District Nevada Local Governments	Susfalk, Mr. Rick B		150,580	1/31/2016

CLEAN ENERGY SECTOR

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Clean Energy		DRI		Finalizing a Nevada Wetland Program Plan (WWP) and Assessing Biotic Integrity of the State's Priority Wetlands: Isolated Great Basin and Mojave Desert Springs	Finalizing a Nevada Wetland Program Plan (WWP) and Assessing Biotic Integrity of the State's Priority Wetlands: Isolated Great Basin and Mojave Desert Springs	EPA/Nevada Natural Heritage Program State of Nevada	Sada, Dr. Don W		341,152	11/30/2014
Clean Energy		DRI		Glaciochemical Analysis of 2010/2011 West Antarctic Ice Cores	Glaciochemical Analysis of 2010/2011 West Antarctic Ice Cores	Woods Hole Oceanographic Institute Other Higher Ed Institutions	McConnell, Dr. Joe R		60,299	2/29/2012
Clean Energy		DRI		Groundwater Model Development to Assess Aquifer Recharge and Recovery in the City of Fernley	Groundwater Model Development to Assess Aquifer Recharge and Recovery in the City of Fernley	DOI-Bureau of Reclamation/City of Fernley Nevada Local Governments	Pohl, Dr. Greg M		75,210	6/30/2012
Clean Energy		DRI		Hybrid BMP Design and Monitoring in Incline Village	Hybrid BMP Design and Monitoring in Incline Village	Nevada Tahoe Conservation District Nevada Local Governments	Susfalk, Mr. Rick B		22,000	3/31/2013
Clean Energy		DRI		Ice Core Analysis and Incorporation of the Arctic Circle Traverse (ACT) Radar	Ice Core Analysis and Incorporation of the Arctic Circle Traverse (ACT) Radar	NSF/University of Utah Other Higher Ed Institutions	McConnell, Dr. Joe R		150,621	8/31/2012
Clean Energy		DRI		Integrated Water Quality Monitoring on the Truckee River	Integrated Water Quality Monitoring on the Truckee River	Community Foundation of Western Nevada Other Non Profit Organizations	McKay, Mr. Alan A		318,012	6/30/2013
Clean Energy		DRI		Integrated Water Quality Monitoring on the Truckee River	Integrated Water Quality Monitoring on the Truckee River	EPA/State of Nevada - Dept of Environmental Protection State of Nevada	McKay, Mr. Alan A		80,000	12/31/2013
Clean Energy		DRI	UC Santa Barbara/USGS/AZ Water Science Center	Investigation of Methods of Potential Value to Monitor Groundwater Recharge in the Mountains of California	Investigation of Methods of Potential Value to Monitor Groundwater Recharge in the Mountains of California	California Energy Commission Other Domestic Governments	Earman, Mr. Sam B		399,990	3/31/2013
Clean Energy		DRI		Investigations of the Effect of Virgin River Water Quality on Native Fishes	Investigations of the Effect of Virgin River Water Quality on Native Fishes	Washington County Water Conservancy District Other Domestic Governments	Chen, Mr. Li		132,565	6/30/2012
Clean Energy		DRI		Measuring Black Carbon and Source Tracers in Canadian Snow and Ice	Measuring Black Carbon and Source Tracers in Canadian Snow and Ice	Environment Canada Foreign Entities	McConnell, Dr. Joe R		50,677	3/31/2012
Clean Energy		DRI		Modeling Soil-Water-Vegetation Response to Climate Change	Modeling Soil-Water-Vegetation Response to Climate Change	USDA/Univ of Az/Ben-Gurion University of the Negev Foreign Entities	Chen, Mr. Li		26,500	8/30/2012
Clean Energy		DRI		Near-Shore Water Quality Monitoring at Lake Tahoe	Near-Shore Water Quality Monitoring at Lake Tahoe	State of NV Div State Lands-Dept Conserv & Nat Resources State of Nevada	Susfalk, Mr. Rick B		52,566	11/30/2011
Clean Energy		DRI		Nevada Infrastructure for Climate Change Science, Education and Outreach - Task 5 (Policy)	Nevada Infrastructure for Climate Change Science, Education and Outreach - Task 5 (Policy)	NSF/Nevada System of Higher Education Other Higher Ed Institutions	Chief, Ms. Karletta		45,189	8/31/2013
Clean Energy		DRI		Nevada Water Resources Data, Modeling and Visualization (DMV) Center - Phase I	Nevada Water Resources Data, Modeling and Visualization (DMV) Center - Phase I	Department of Energy Federal-Other	Jackman, Mr. Tom M		1,066,841	3/31/2012
Clean Energy		DRI		Nevada Water Resources Data, Modeling, and Visualization (DMV) Phase II	Nevada Water Resources Data, Modeling, and Visualization (DMV) Phase II	Department of Energy Federal-Other	Jackman, Mr. Tom M		729,000	9/14/2012
Clean Energy		DRI		NIWR Program (Effects of CC on Snowpack; Hyporheic Exchange Truckee River; Tamarisk Water Use; LV Water System Resiliency)	NIWR Program (Effects of CC on Snowpack; Hyporheic Exchange Truckee River; Tamarisk Water Use; LV Water System Resiliency)	DOI - US Geological Survey Federal-Other	Thomas, Dr. Jim M		262,634	2/28/2013
Clean Energy		DRI		NSF EPSCoR: Nevada Infrastructure for Climate Change Science, Education and Outreach	NSF EPSCoR: Nevada Infrastructure for Climate Change Science, Education and Outreach	St of Nev/Nevada System of Higher Education Other Higher Ed Institutions	Young, Dr. Michael H		28,540	8/31/2011
Clean Energy		DRI		Numerical Modeling for Water Demands Under Climate Change	Numerical Modeling for Water Demands Under Climate Change	DOI - Bureau of Reclamation Federal-Other	Huntington, Mr. Justin L		175,318	9/30/2012
Clean Energy		DRI		PIRE: International Collaboration for Education, Training, and Research in Ice Core Science (ICE-ICS)	PIRE: International Collaboration for Education, Training, and Research in Ice Core Science (ICE-ICS)	NSF/Oregon State University Other Higher Ed Institutions	McConnell, Dr. Joe R		235,015	8/31/2011
Clean Energy		DRI		Polaris Creek Wetland/Stream Environment Zone (SEZ) Restoration for Tahoe Total Maximum Daily Load (TMDL), BMP Efficiency Testing, Habitat Enhancement, and Outreach	Polaris Creek Wetland/Stream Environment Zone (SEZ) Restoration for Tahoe Total Maximum Daily Load (TMDL), BMP Efficiency Testing, Habitat Enhancement, and Outreach	California-Tahoe Resource Conservation District Other Domestic Governments	Heyvaert, Mr. Alan C		160,018	4/30/2012
Clean Energy		DRI		Predicting the Interactions between Flow, Sediment, and Riparian Vegetation	Predicting the Interactions between Flow, Sediment, and Riparian Vegetation	Department of Interior Federal-Other	Chen, Mr. Li		45,000	9/30/2012
Clean Energy		DRI	Univ of Idaho	Professional Services for Climate and Watershed Investigations in Eastern Great Basin Nevada	Professional Services for Climate and Watershed Investigations in Eastern Great Basin Nevada	Southern Nevada Water Authority Nevada Local Governments	Thomas, Dr. Jim M		342,000	9/30/2013
Clean Energy		DRI	UNR	Proposal to Determine Inter-Annual and Intra-Annual Population Dynamics of Soft Sediments Dwelling D. Bugensis in Boulder Basin, Las Vegas Bay and Overton Arm, Lake Mead	Proposal to Determine Inter-Annual and Intra-Annual Population Dynamics of Soft Sediments Dwelling D. Bugensis in Boulder Basin, Las Vegas Bay and Overton Arm, Lake Mead	DOI - National Park Service Federal-Other	Acharya, Mr. Kumud		143,219	1/30/2012
Clean Energy		DRI		Quality Assurance Review of L31N Groundwater Flow Data for 2006-2009	Quality Assurance Review of L31N Groundwater Flow Data for 2006-2009	South Florida Water Management District Nevada Local Governments	Susfalk, Mr. Rick B		27,422	6/30/2012

CLEAN ENERGY SECTOR

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Clean Energy		DRI		Rainbow Wash Watershed study	Rainbow Wash Watershed study	Maricopa County Flood Control District Other Domestic Governments	Chen, Mr. Li		80,000	10/31/2011
Clean Energy		DRI		Response of Black Rock-High Rock Emigrant Trails National Conservation Area Springs to Climate Change	Response of Black Rock-High Rock Emigrant Trails National Conservation Area Springs to Climate Change	DOI - Bureau of Land Management Federal-Other	Sada, Dr. Don W		277,420	9/1/2013
Clean Energy		DRI		Tahoe Stormwater Particle Assessment and Management for Urban and Roadway Runoff - C/S	Tahoe Stormwater Particle Assessment and Management for Urban and Roadway Runoff - C/S	USDA - Forest Service Federal-Other	Heyvaert, Mr. Alan C		163,664	10/31/2012
Clean Energy		DRI		Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - CEMP	Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - CEMP	Department of Energy Federal-Other	Chapman, Ms. Jenny B		1,049,844	10/31/2016
Clean Energy		DRI		Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - CRMP and AIP	Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - CRMP and AIP	Department of Energy Federal-Other	Chapman, Ms. Jenny B		788,153	10/31/2016
Clean Energy		DRI		Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - Soils	Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - Soils	Department of Energy Federal-Other	Chapman, Ms. Jenny B		89,344	10/31/2016
Clean Energy		DRI		Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - UGTA	Technical Research Engineering and Development DOE/NNSA/NSO contract (TREDS) - UGTA	Department of Energy Federal-Other	Chapman, Ms. Jenny B		235,693	10/31/2016
Clean Energy		DRI		Technical Support to Southern Nevada Health District for oversight of Reid Gardner Landfill	Technical Support to Southern Nevada Health District for oversight of Reid Gardner Landfill	Southern Nevada Health District Nevada Local Governments	Pohlmann, Mr. Karl F		40,583	6/30/2012
Clean Energy		DRI		Truckee River Flood Management Project	Truckee River Flood Management Project	Manhard Consulting, Ltd Businesses	McGraw, Mr. David S		98,678	10/31/2011
Clean Energy		DRI		Walker Basin Project, Phase 2	Walker Basin Project, Phase 2	National Fish and Wildlife Foundation/University of Nevada, Reno Other Higher Ed Institutions	Thomas, Dr. Jim M		1,706,317	1/1/2012
Clean Energy		DRI		Water Quality Analyses and Reporting	Water Quality Analyses and Reporting	World Vision Inc Other Non Profit Organizations	Thomas, Dr. Jim M		79,500	9/30/2011
Clean Energy		DRI		Water Supply Study of Grass Valley, NV	Water Supply Study of Grass Valley, NV	7Q10, Inc Businesses	Cooper, Dr. Clay		29,384	7/27/2015
Clean Energy		DRI		Watershed-Based Plan for the Pyramid Lake Paiute Tribe	Watershed-Based Plan for the Pyramid Lake Paiute Tribe	EPA/State of Nevada - Dept of Environmental Protection State of Nevada	Knust, Ms. Anna		132,752	12/31/2013
Clean Energy		DRI		Wetlands Up-Scale Selenium Cycle	Wetlands Up-Scale Selenium Cycle	Southern Nevada Water Authority Nevada Local Governments	Acharya, Mr. Kumud		74,832	6/15/2012
Clean Energy		DRI		World Vision Water Projects	World Vision Water Projects	World Vision Inc Other Non Profit Organizations	Thomas, Dr. Jim M		614,798	9/15/2014
TOTAL									99,748,936	

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

HEALTH & MEDICAL SERVICES SECTOR

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Health and Medical Services		UNLV		Biosurveillance in a Highly Mobile Population	Work activity including status meeting attendance or teleconferencing, research, alternative generation and discussion and both algorithm and data validation will be required in support of all four major tasks.	QinetiQ-FPT	Cochran, Christopher		123,253	5/15/2012
Health and Medical Services		UNLV		AAPHD Project	The purpose of this study is to explore the relationships between exposure to environmental tobacco smoke (ETS) and untreated dental decay and mean Decayed, Missing and Filled Teeth (DMFT) scores in Nevada teens (13-18). Using data from 68,576 participants from year two through nine (7/1/2002-6/30/2010) of the Crackdown on Cancer (CDOC) project, the author will examine whether the exposure to ETS was significantly associated with untreated dental decay and mean DMFT scores, while controlling for caries risk factors such as socioeconomic status (SES), tobacco use (cigarettes, cigars), marijuana use and living in an area with or without fluoride. According to Dimmyer et, al., SES, tobacco/marijuana use and community water fluoridation are factors identified as significant modulators of dental caries. The author and a Research Assistant will then conduct a community pilot project to further determine if the frequency/duration/amount of exposure to smoked tobacco products (cigarettes, cigars) had any relationship with the prevalence (untreated decay) and severity (DMFT scores) of dental decay. Results of this study will guide the development of an oral health education program that addresses the association of ETS exposure among adolescents with oral health risk. The project will also provide evidence to support the necessary tobacco-related policy changes that are required to improve the oral health of children.	American Association of Public Health Dentistry	Demopoulos, Christina		5,000	5/30/2013
Health and Medical Services		UNLV		NSF-RCN: X-Ray Motion Analysis Research Coordination Network	We propose to create a network of researchers applying x-ray motion analysis (XMA) in the field of comparative vertebrate musculoskeletal biomechanics.	Brown University	Lee, David		25,101	2/28/2013
Health and Medical Services		UNLV		Transcription-Associated Mutagenesis in Bacillus Subtilis Cells in Conditions of Stress - RAHSS Supplement	The main goal of this project is to elucidate molecular mechanisms that generate genetic diversity in cells experiencing stress or non-replicating conditions. The specific objective of this project is to determine how the process of transcription mediates the formation of mutations in stressed cells.	National Science Foundation	Robledo, Eduardo		6,500	2/28/2013
Health and Medical Services		UNLV		Transcription-Associated Mutagenesis in Bacillus Subtilis Cells in Conditions of Stress - REU	This supplement will provide an eight-week research experience in the field of bacterial and molecular genetics to two UNLV undergraduate students. The educational objective of this supplement is to further the research experience for two undergraduate students in Dr. Robledo's laboratory. The experimental objectives for the participating students are to examine a) the accumulation of mutations in essential genes and b) how the formation of transcription-induced secondary DNA structures influences accumulation of mutations in cells in conditions of nutritional stress.	National Science Foundation	Robledo, Eduardo		29,150	2/28/2013
Health and Medical Services		UNLV		Transcription-Associated Mutagenesis in Bacillus Subtilis Cells in Conditions of Stress	To test the transcription-associated mutagenesis concept, we will pursue two major experimental objectives. 1) We will determine whether decreases in the level of transcription correlate with decreases in the accumulation of mutations in a gene under selection. 2) We will investigate the role of the formation of transcription-induced DNA secondary structures in the accumulation of mutations in stationary phase.	National Science Foundation	Robledo, Eduardo		375,000	2/28/2013
Health and Medical Services		UNLV		USPFO for Nevada	The contractor shall provide customized comprehensive dental readiness services to include: annual dental examinations, clinically indicated radiologic studies (to include panorex), oral health education and Class 3 dental treatment for alerted Soldiers (as identified by the state/territory).	Nevada Army National Guard	Thiriot, Rick		0	7/31/2013
Health and Medical Services		UNLV		How Did TANF Respond to Great Recession?	1)Examination of changes in the TANF caseload during and before the recession for every state and comparison with receipt of unemployment compensation and the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp program); 2)Determination of whether TANF's responsiveness to the 2001 and 2007 recessions differed from the responsiveness of Aid to Families with Dependent Children (AFDC, TANF's predecessor program), to previous recessions. 3) An examination of selected aspects of state TANF programs to understand why TANF rolls did not increase.	The Brookings Institution	Albert, Vicky		11,000	7/27/2012
Health and Medical Services		UNLV		Regional Shipping Point for the National Center for Biomedical Research and Training (NCBRT)	1. Provide adequate secure and climate controlled space/facility infrastructure to store up to three months of course materials, associated course equipment to include 70 simulation weapons(pistols/rifles), simulation ammunition, shipping containers, ship and receive these items to and from course locations, and clean and maintain course equipment and simulation weapons. 2. Provide adequate secure and climate controlled space/facility infrastructure to accommodate a single office space to include telephone service (one telephone and one fax) and internet service for use by staff when onsite at location. 3. Provide labor services necessary to pack and ship course materials and equipment for up to 10 course locations, based on course delivery schedule to be provided by NCBRT; and to receive, unpack, inventory and re-pack received items at the conclusion of each course delivery. Documentation of all shipments will be noted utilizing the provided electronic tracking forms. Copies of post course inventories shall be forwarded to the NCBRT Material Manager via email or other mutually agreed-upon method. 4. Provide labor to clean and maintain simulation weapons and course equipment upon receipt of these items from course site. This will include also the proper documentation of such utilizing the provided electronic tracking forms. 5. Provide adequate safe guard of simulation weapons ammunition, course equipment, course materials, shipping containers and office furniture and equipment while in the possession of UNLV and annually submit an inventory listing of all NCBRT property in custody of UNLV to NCBRT. 6. Return the items in like condition as received from NCBRT (at NCBRT's expense), normal wear and tear expected, and free from contamination, on or before the expiration date, unless the agreement period is formally extended or terminated before the end date. 7. Reimburse NCBRT at the current price of replacement or repair, in case of loss or damage of the property in UNLV's possession during the agreement period. 8. Permit inspection of the property listed in this agreement after proper notification.	Louisiana State University	Bryant, Ross		16,720	9/30/2012
Health and Medical Services		UNLV		Nellis Dunes Recreational Area Dust Exposure and Human Risk Assessment	This study will address the following questions in the context of being exposed to dust at NDRA (Nellis Dunes Recreational Area): 1) What is the risk to the public when performing recreational activities at Nellis Dunes? 2) What is the risk to federal employees, or people performing other non-recreational activities at Nellis Dunes? The proposed project is a scientific study to determine the potential human health risks from dust emission exposure for the 300,000+ annual visitors who recreate at the NDRA, including non-recreating visitors and federal personnel.	U.S. Bureau of Land Management	Buck, Brenda	University of Utah	1,206,361	3/20/2014
Health and Medical Services		UNLV		Communities Putting Prevention to Work (CPPW)	Assist the Southern Nevada Health District (SNHD) Office of Chronic Disease Prevention and Health Promotion (OCDPHP) Chronic Disease Prevention Program with planning, implementation and evaluation of grant objectives related to the Communities Putting Prevention to Work (CPPW) Obesity Grant.	Southern Nevada Health District - FPT	Bungum, Tim		18,678	5/31/2012
Health and Medical Services		UNLV		In-Situ Synchrotron X-Ray Diffraction Study of Quartz Deformation - ARRA	The primary goal of the proposed research is to explore the role of intergranular interactions in a deforming polycrystal using a combination of high pressure in-situ synchrotron x-ray diffraction experiments, elastic plastic self consistent modeling studies and detailed microstructural analysis of the experimental samples.	National Science Foundation	Burnley, Pamela		305,314	8/31/2013
Health and Medical Services		UNLV		Clark County: Sample Analysis	Establish a new BioWatch Laboratory to serve the jurisdiction of Las Vegas.	Clark County Dept of Air Quality and Environmental Mgmt	Buttner, Mark		392,404	6/30/2012
Health and Medical Services		UNLV		Clark County: Sample Analysis	Establish a new BioWatch Laboratory to serve the jurisdiction of Las Vegas.	Clark County Dept of Air Quality and Environmental Mgmt	Buttner, Mark		796,339	6/30/2012

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Health and Medical Services		UNLV		The Work Life of Nurse Faculty	The purpose of this study is to examine factors associated with the work life of nurse faculty in the United States and how those factors may affect their intent to become, stay, or consider leaving the faculty role. The aims of this study are to discover the factors that influence nurses to become nursing faculty and what the faculty's reasons are for staying in nursing education. Identifying this information will assist nursing education leaders to develop improved strategies for the recruitment, retention, and improved work life environments for faculty.	American Nurses Foundation	Candela, Lori		3,095	8/31/2012
Health and Medical Services		UNLV		California-Nevada Public Health Training Center (CA-NV PHTC)	The PI from UNLV will serve as the lead contact at this academic partner, and assume overall responsibility for project communications, reports, and resource management. She will coordinate partnership meetings and direct development and implementation of training materials, training venues, and training resources.	San Diego State University Research Foundation	Chino, Michelle		111,838	8/31/2012
Health and Medical Services		UNLV		Ventanilla De Salud	The Consulate General of Mexico in Las Vegas, Nevada, services an average of 100 Mexican nationals per day, and desires to partner with UNLV, through the CHDR to: (1) Provide quality bilingual, bicultural healthcare education, advocacy and referrals to Mexican nationals and their families at the Consulate. (2) Disseminate health information through one-on-one educational interventions as well as group presentations at the Consulate. (3) Assist in the enrollment of Latinos of Mexican origin in health insurance programs. (4) Provide necessary guidance to enable Latino families of Mexican origin to find quality primary care/services. (5) Conduct a needs assessment survey at the Consulate to provide a base for the program's structure and evaluation. (6) Seek sustainability and continued funding for the "Ventanilla de Salud Program".	Consulate General of Mexico in Las Vegas, Nevada	Chino, Michelle		15,000	12/19/2012
Health and Medical Services		UNLV	University of Nevada, Reno	INBRE - CHD Knowledge and Risk Factors Among Filipino-Americans	CHD is the leading cause of death of Filipino-Americans (FAs) in the United States. FAs are the second largest Asian subgroup in the US and the second largest immigrant population in the US following Mexican-Americans. Despite this, little information is known about the CHD knowledge and the CHD risk factors of FAs. The aims of this proposed research are to: a)examine the baseline CHD knowledge of FAs and b) examine the CHD risk factors prevalent among FAs.	National Institutes of Health	Dalung-Angosta, Alona		86,123	5/31/2012
Health and Medical Services		UNLV	NV System of Higher Education	Blood Flow Measurement Telemetry System	Biotelemetry of physiological events will be critical in the development of life systems in space. A major issue facing telemetry (the wireless transmission of data) is a lack of blood flow sensors. Current technologies require too much power. We will use passive infrared sensors (PIRS) to create a blood flow sensor that requires no external power.	NV System of Higher Education	Das, Biswajit		1,000	9/30/2012
Health and Medical Services		UNLV		UNLV School of Dental Medicine and Future Smiles/Clark County Dental Initiative	The UNLV School of Dental Medicine (SDM) assumed the role of fiscal agent for Seal Nevada South (SNS) as of July 1, 2011. SNS will expand the program into 6 CCSD elementary schools in the next 12 months in addition to having 2nd year dental hygiene students and 3rd/4th year dental students providing the preventive services with the supervision of SDM Faculty. SDM has a pending agreement with the CCSD to offer dental treatment in elementary schools with pediatric dental residents and predoctoral dental students. If this agreement is approved, SNS will work closely with the restorative program to provide the preventive services to additional schools. With the current state of the economy, it is extremely difficult to access dental services. By having a restorative program with the same administration as SNS, it will allow for a smooth transition for the SNS children to receive necessary follow-up dental care. SNS preventative care will be delivered using mobile/portable dental equipment in school-based and community-based settings.	Oral Health America	Demopoulos, Christina	Future Smiles	20,000	6/30/2012
Health and Medical Services		UNLV		UNLV School of Dental Medicine and Southern Nevada Dental Society Give Kids a Smile	The major goals in providing continuity of care for the children in the Give Kids a Smile (GKAS) program include: 1)Provide the remaining restorative care that was not completed at GKAS program, at no charge to the parent/guardian (SDM/SNDS); approximately 35% of GKAS participants 2)Schedule children who were not able to be seen in the GKAS program due to behavioral management issues with the pediatric residents in the SDM pediatric clinic (SDM). 3)Connect children who participated in the GKAS program with dental home at the SDM for continuity of care and routine preventive visits to ensure good oral hygiene and dietary habits (SDM). 4)Assist the families in receiving the dental care needed for their children (SNDS).	American Dental Association Foundation	Demopoulos, Christina	Southern Nevada Dental Society	6,251	7/29/2012
Health and Medical Services		UNLV		Establishing Safety, Permanency, and Well-Being for Children Residing in Relative Care: A Data Diffusion Plan	The goal of the proposed project is to strengthen social workers' abilities to translate evidence-supported data pertaining to relative caregiving into useful information, practice, and policies	The Lois and Samuel Silberman Fund	Denby-Brinson, Ramona		40,000	9/30/2013
Health and Medical Services		UNLV		Improving Service Delivery to Youth in the Child Welfare System	The sub-award to UNLV involves two main activities: (1) evaluation services and (2) research services. Category #1 Evaluation Services: A longitudinal project implementation evaluation beginning at Year-One will occur consisting of the following components: 1. Process Evaluation 2. Needs Assessment 3. Cost Analysis; and 4. Fidelity Assessment. Also, a longitudinal satisfaction evaluation will occur. Category #2 - Research Services A longitudinal outcome evaluation (comprising baseline, 6 month and 12 month follow up) will be done in the form of an experimental research study consisting of the following components: 1. 200 pre- and adolescent foster youth in an experimental research group condition; and 2. 200 pre- and adolescent foster youth in a control research group condition.	Clark County Department of Family Services	Denby-Brinson, Ramona		63,413	6/30/2016
Health and Medical Services	Additional Promising Possibilities	UNLV		Traditional Foods/CDC-IPA	Under the supervision of the Deputy/Field Director, Native Diabetes Wellness Program, PEB, DDT, CDC in Albuquerque, NM, Dr. Dodge-Francis shall accomplish the following: 1) provide technical assistance to 17 CDC traditional foods grantees on evaluation design for process and outcome measures; 2) oversee and have lead responsibility for gathering and presenting data from grantee presentations and written reports; 3) assist in creation and interpretation of shared data elements from the survey monkey system developed by NDWP; 4) attend two grantee meetings each year; 5) attend the DOT Diabetes conference at least twice during the traditional foods grantee period; and 6) provide ideas/storylines/review/read/comment on Eagle Books for youth as they are developed by CDC NDWP.	Centers for Disease Control	Dodge-Francis, Carolee		58,454	1/2/2013
Health and Medical Services		UNLV		An Outcome Study Involving Drug Abusing Mothers in Child Protective Services	The specific aims of this Stage IA/IB study are to: (1) develop the first family-based behavioral therapy treatment manual to explicitly address drug abuse within the context of child neglect, (2) develop accompanying protocol adherence measures, including video scenarios depicting effective implementation of the developed treatment procedures, (3)train program staff to effectively use the developed interventions, (4) examine the reliability, feasibility and clinical utility of the developed manual, as well as the developed method of protocol adherence in clinical case trials involving drug abusing mothers who have evidence child neglect, (5) conduct a controlled comparison of the developed behavior therapy and treatment as usual(TAU) Family Services (random assignment of participants to experimental conditions), (6) utilize structured clinical methods to assess severity of child neglect, (7) maintain standardization and uniformity of treatments by incorporating treatment manuals, therapist protocol checklists, structured supervision of therapists, assessment of treatment protocol adherence via objective review by independent raters, standardized program introduction during all initial treatment sessions, and equal duration of treatments, (8) utilize objective	National Institutes of Health	Donohue, Bradley		1,333,102	6/30/2012
Health and Medical Services		UNLV		Testing Therapist Training Interventions to Implement an EBT for Adolescents	Writing results for the following research: Aim 1: Evaluate the relative effectiveness of three training interventions with increasing intensity. Aim 2: Examine the relative capacity of the two more intensive training interventions. Aim 3: Evaluate moderators of gains in therapist knowledge and implementation of CM throughout the study period.	Medical University of South Carolina	Donohue, Bradley		18,547	6/30/2012

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UNLV, UNR AND DRI

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Health and Medical Services		UNLV		The Development of a Higher Order Thinking Rubric	Using a non-experimental research design, the aim of this study is to determine the psychometric properties of the Higher Order Thinking Rubric, an instrument created to assess the cognitive developmental stage of higher order thinking during high-fidelity simulation (HFS).	Sigma Theta Tau International Honor Society of Nursing	Doolen, Jessica		4,965	10/31/2012
Health and Medical Services		UNLV	University of Nevada, Reno	Geriatric Education Centers	Become a consortium member of the Nevada Geriatric Education Center (NGEC) for the project timeframe of July 1, 2010 through June 30, 2015. During this period UNLV will provide services and conduct activities as outlined in the Geriatric Education Center Award Program application submitted by UNR.	Health Resources & Services Admin.	Dounis, Georgia		77,000	6/30/2012
Health and Medical Services		UNLV	University of Nevada, Reno	Geriatric Training for Physicians, Dentists and Behavioral and Mental Health Professionals	UNLV will provide services and conduct activities outlined in the Geriatric Training and Physicians, Dentists and Behavioral and Mental Health Professionals Grant Program.	Health Resources & Services Admin.	Dounis, Georgia		169,340	6/30/2012
Health and Medical Services		UNLV	Nevada System of Higher Education	Cell Cycle-Dependent Radiation Biomarkers Expressed During Manned Space Flight	This proposal aims to test the hypothesis that a unique subset of the molecular secondary effects of radiation exposure can be attributed to DNA damage during replication. Using microarray technology, it is feasible to simultaneously analyze mRNA expression for all of the approximately 25,000 genes that comprise the human genome. This approach has been used to investigate the overall effects of radiation on cultured cells. This proposal describes a strategy to differentiate primary radiation effects from those secondary effects that are related to DNA damage during replication. The latter defines the subset of radiation exposure biomarkers that are cell cycle-dependent. The eventual goal for this project will be to investigate radiation biomarkers that are produced by exposure to the types of radiation found in space.	NASA EPSCoR	Gary, Ronald		26,194	3/30/2013
Health and Medical Services		UNLV	University of Nevada, Reno	INBRE Year 7 - UNLV Genomics Core	The UNLV Genomics Core provides research services including microarray, quantitative real-time PCR, gel and blot imaging (via storage phosphor, fluorescence scanning, and chemiluminescence detection), protein electrophoresis (one- and two-dimensional), and flow cytometry. INBRE grant funding supports the costs for personnel who maintain and operate equipment and also for instrumentation service contracts.	National Institutes of Health	Gary, Ronald		191,868	5/31/2012
Health and Medical Services		UNLV		Early Intervention Endorsement Cohort	An instructor will be provided to facilitate an early intervention cohort for completion of the courses noted below which will be taught on weekends in four (4) modules. These courses will support early intervention staff in southern Nevada in meeting their endorsement criteria within the required timeline. Due to budget cuts UNLV does not have faculty capacity to support this effort without funds to support temporary faculty.	Nevada Department of Health and Human Services - FPT	Gelfer, Jeffrey		19,734	6/30/2013
Health and Medical Services		UNLV		Nevada Healthy Homes Partnership	Conduct the Nevada Healthy Homes and Lead Prevention Poisoning Prevention Initiative. The Nevada Healthy Homes and Lead Poisoning Initiative will develop a strategic plan for a statewide initiative focusing on two broad needs. First, is the need to address exterior/interior housing hazards that put resident populations in metropolitan Clark County at risk of multiple housing-related health problems, including asthma, unintentional injuries, and childhood lead poisoning. A second focus of planning will be directed towards developing the capacity to address housing-related health hazards in the remaining two metropolitan counties in Nevada, Washoe County and Carson City. DEOH, along with existing and new partners, will provide outreach and training program specifically focused on equipping northern Nevada communities with the capacity-building knowledge and skills needed to reduce or eliminate housing-related health hazards and to promote housing that is healthy, safe, affordable and accessible.	Centers for Disease Control	Gerstenberger, Shawn	State of Nevada Health Division Southern Nevada Health District	591,697	8/31/2012
Health and Medical Services		UNLV		Potential Impacts of Invasive Quagga Mussels on Diet and Feeding Habitats of Young of the Year (YOY) Striped Bass in Lake Mohave	UNLV will provide assistance with experimental design, sample collection and analysis, data interpretation and statistical analysis, and report to Nevada Department of Wildlife (NDOW) on potential impacts of invasive quagga mussels on diet and feeding habitats of YOY striped bass in Lake Mohave.	Nevada Department of Wildlife	Gerstenberger, Shawn		40,000	6/30/2013
Health and Medical Services		UNLV		Steroid Hormone Signaling in Genetically Obese Drosophila	We propose to use the power of the Drosophila genetics to investigate the role of steroid signaling in obesity and identify the genes and allele combinations responsible for the increased obese phenotype. Because the fly system has been instrumental in identifying conserved signaling pathways responsible for many human disease pathologies, we expect that information learned will have direct applications to human health.	National Institutes of Health	Gibbs, Allen		285,893	4/30/2015
Health and Medical Services		UNLV		Reliability and Validity of the HPI Caliper and Body Composition Formula	This study will evaluate the reliability and validity of the HPI caliper and Body Composition formula.	Health Profile Institute, Inc	Golding, Lawrence		25,000	6/30/2012
Health and Medical Services		UNLV		Hospital Cost Review Project - FPT	1.The parties agree that the services or activities to be performed or contracted by the Center as follows: a. To collect and analyze patient discharge data currently known as Universal Billing (UB) Forms from hospitals pursuant to NRS 449.485. b. To collect quarterly report utilization and financial data from hospitals pursuant to NRS 439B.440. These reports are known as the Nevada Hospital Quarterly Reports (NHQRs). c. To collect quarterly utilization data from hospice facilities, long-term care facilities including skilled nursing facilities and facilities for the mentally retarded, ambulatory surgical centers (AMBSURG), medical resonance imaging (MRI) facilities and computer tomography scanner (CT) facilities. 2. to provide reports to the DHCFP as delineated in the deliverables section. The Center is designated as a public health entity with regard to the procession of this information for the purposes of the Health Information Portability and Accountability Act (HIPAA). 3. The Center may perform specific tasks and provide reports and data as requested by outside entities. The Center will bill for the outside entities directly for any such tasks and reports. 4. The Center will maintain and safeguard all information received, developed, reported, or distributed under this Contract in compliance with state and federal laws. 5. The Center will be compensated for its services as delineated. Deliverables will be submitted by electronic means unless otherwise stated in Contract or otherwise agreed to by both parties. The DHCFP will have twenty (20) days from receipt to accept or reject any deliverable.	Nevada Department of Health and Human Services - FPT	Greenway, Joseph		159,016	6/30/2013
Health and Medical Services		UNLV		Hospital Cost Review Project - State	1.The parties agree that the services or activities to be performed or contracted by the Center as follows: a. To collect and analyze patient discharge data currently known as Universal Billing (UB) Forms from hospitals pursuant to NRS 449.485. b. To collect quarterly report utilization and financial data from hospitals pursuant to NRS 439B.440. These reports are known as the Nevada Hospital Quarterly Reports (NHQRs). c. To collect quarterly utilization data from hospice facilities, long-term care facilities including skilled nursing facilities and facilities for the mentally retarded, ambulatory surgical centers (AMBSURG), medical resonance imaging (MRI) facilities and computer tomography scanner (CT) facilities. 2. to provide reports to the DHCFP as delineated in the deliverables section. The Center is designated as a public health entity with regard to the procession of this information for the purposes of the Health Information Portability and Accountability Act (HIPAA). 3. The Center may perform specific tasks and provide reports and data as requested by outside entities. The Center will bill for the outside entities directly for any such tasks and reports. 4. The Center will maintain and safeguard all information received, developed, reported, or distributed under this Contract in compliance with state and federal laws. 5. The Center will be compensated for its services as delineated. Deliverables will be submitted by electronic means unless otherwise stated in Contract or otherwise agreed to by both parties. The DHCFP will have twenty (20) days from receipt to accept or reject any deliverable.	Nevada Department of Health and Human Services	Greenway, Joseph		710,984	6/30/2013

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Health and Medical Services		UNLV		Hospital Cost Review Project-Attachment B	1.The parties agree that the services or activities to be performed or contracted by the Center as follows: a. To collect and analyze patient discharge data currently known as Universal Billing (UB) Forms from hospitals pursuant to NRS 449.485. b. To collect quarterly report utilization and financial data from hospitals pursuant to NRS 439B.440. These reports are known as the Nevada Hospital Quarterly Reports (NHQRs). c. To collect quarterly utilization data from hospice facilities, long-term care facilities including skilled nursing facilities and facilities for the mentally retarded, ambulatory surgical centers (AMBSURG), medical resonance imaging (MRI) facilities and computer tomography scanner (CT) facilities. 2. to provide reports to the DHCFP as delineated in the deliverables section. The Center is designated as a public health entity with regard to the procession of this information for the purposes of the Health Information Portability and Accountability Act (HIPAA). 3. The Center may perform specific tasks and provide reports and data as requested by outside entities. The Center will bill for the outside entities directly for any such tasks and reports. 4. The Center will maintain and safeguard all information received, developed, reported, or distributed under this Contract in compliance with state and federal laws. 5. The Center will be compensated for its services as delineated. Deliverables will be submitted by electronic means unless otherwise stated in Contract or otherwise agreed to by both parties. The DHCFP will have twenty (20) days from receipt to accept or reject any deliverable.	Nevada Department of Health and Human Services	Greenway, Joseph		410,000	6/30/2013
Health and Medical Services		UNLV		Advisor to the State of Nevada, FY 2012	Make available the Dean of the School of Community Health Sciences, Dr. Mary Guinan, to act as a consulting Physician to the State of Nevada Health Division, through its Bureau of Health Care Quality and Compliance, with regard to infectious disease issues within the State of Nevada.	Nevada Department of Health and Human Services Health Div	Guinan, Mary		145,699	6/30/2012
Health and Medical Services		UNLV		Developmental Origins of Domain-Specificity in Auditory Cognition	The proposed experiments aim to 1)determine the extent to which adult listeners apply music-and speech-specific biases when confronted with unfamiliar auditory structures and 2)determine whether these biases change or remain stable from infancy to adulthood.	National Science Foundation	Hannon, Erin		229,976	4/30/2014
Health and Medical Services		UNLV		Large Amplitude Training for Children with Cerebral Palsy: A Planning and Feasibility Study	The long-term goal of the research team is to refine the LSVT BIG movement intervention for children with Cerebral Palsy (CP) in order to conduct a large-scale clinical trial to address this intervention's effectiveness, clinical pragmatism and dose response relationships. To achieve this goal, multiple steps must be completed first to achieve the long-term goal of the proposed feasibility and planning grant. Therefore, the requested AACPD funds will be used to support the investigative team to achieve the following four aims: 1) Identify potential collaborators needed for a large-scale study of LSVT BIG, including statisticians and other key collaborator/consultants. 2) Plan successful recruitment strategies at multiple sites. 3) Prepare to pilot-test a day camp session in which children in a similarly aged group would receive an adapted LSVT BIG therapy 4x/week x 1 week to test feasibility and effects on gait and functional mobility. 4) Identify an appropriate external funding source to which a proposal for a larger scale, clinical trial of this intervention, including examination of dose response relationships, would be prepared.	American Academy for Cerebral Palsy and Development Med	Hickman, Robbin		25,000	12/31/2013
Health and Medical Services		UNLV		Project Connect: Connecting Districts with Highly Qualified Teachers in Low-incidence Disabilities	The primary purpose of the proposed four (4) year project, Project Connect, is to prepare 60 highly qualified special education teachers in the area of low-incidence disabilities.	U.S. Department of Education	Higgins, Kyle		796,960	7/31/2013
Health and Medical Services		UNLV		Regulation of Platelet-Activating Factor Acetylhydrolase During Inflammation	The goal of the proposed research is to investigate the dynamic interaction of inflammatory mediators and plasma platelet-activating factor acetylhydrolase expression and activity. The objective of the current research is to investigate the cellular and molecular mechanisms involved in the expression and regulation of PAF acetylhydrolase in response to inflammatory mediators in human monocyte/macrophages to gain new knowledge of the regulation of this enzyme in response to the periodontal pathogen <i>P. gingivalis</i> .	National Institutes of Health	Howard, Katherine		360,000	6/30/2014
Health and Medical Services		UNLV		Dental Faculty Loan Repayment Program (DFLRP)	The purpose of the Dental Faculty Loan Repayment Program (DFLRP) established at the University of Nevada, Las Vegas, School of Dental Medicine (UNLV SDM) is to aid in the recruitment and retention of full-time dental faculty.	Health Resources & Services Admin.	Hughes, Cody		402,412	6/30/2013
Health and Medical Services		UNLV	University of Nevada, Reno	INBRE: Inhibitory Signaling in Animal Model of Schizophrenia	The funds being allocated for the 2011-2012 INBRE award will be utilized to complete a number of cellular and molecular biology assays on tissue that we collected during the previous INBRE award cycle. In our investigations we have completed a number of behavioral studies characterizing a novel model of schizophrenia (INBRE award 2010-2011). We have also completed a portion of the cellular and molecular characterization of changes in discrete brain regions in the model system as they relate to data on schizophrenia populations. The work that is planned for the 2011-2012 award will be to complete these experiments as well as to expand on the targets being investigated. Our initial data suggest that our novel model satisfies many of the criteria for a model of schizophrenia, however the mechanisms responsible as well as potential therapeutic targets require additional examination of specific cellular and network function. The 2011-2012 INBRE award will support a portion of these experiments. Specifically, we are currently examining if changes in inhibitory transmitters and receptors may be responsible for the deficits observed in our model as well as potentially in human schizophrenia populations.	National Institutes of Health	Kinney, Jefferson		28,800	5/31/2012
Health and Medical Services		UNLV	University of Nevada, Reno	Kleiger INBRE	The goal of my research is to understand the Ubiquitin Proteasome System (UPS) in eukaryotes and specifically to uncover structure-function relationships for ubiquitin ligase enzymes. We will employ biochemical and biophysical techniques designed to elucidate the mechanism of action of these enzymes. My lab will also study the UPS in vivo using cell-based assays to characterize the phenotypes of cells carrying mutant alleles of these enzymes.	National Institutes of Health	Kleiger, Gary		178,420	5/31/2012
Health and Medical Services		UNLV		Evaluating the Enhanced Services of the Clark County Adult Drug Court	The primary purpose of this project is to determine if the expansion of residential treatment services for ADC participants is increasing the number of successful program participants and, subsequently, reducing recidivism.	Clark County Adult Drug Court	Koetzle, Deborah		90,000	9/30/2012
Health and Medical Services		UNLV		Evaluation of the NDCO Reentry Program - Second Chance Act Adult Offender Reentry Demonstration Project	The Nevada Department of Corrections received Second Chance funding from the Bureau of Justice Assistance to provide reentry services to individuals reentering the community. The program is intended to help formally incarcerated persons successfully transition back into the community by providing a number of services including assessment, case management, and treatment services. As part of the award, the NDOC is required to have an evaluation of the services. The research questions to be addressed include: 1. What are the characteristics of participants targeted by the Second Chance program? 2. What services are provided to program participants? 3. What is the successful completion rate? What are the characteristics of those who successfully complete the programs? 4. What is the recidivism rate of program participants? What factors predict recidivism? Date collection will be restricted to existing data. The Department of Corrections records data related to participant characteristics, process measures and outcome measures. These data will be provided to UNLV research staff in an electronic form and uploaded into a SPSS database. any data not available in electronic form will be collected by DOC staff and entered into a SPSS database by UNLV research staff. Recidivism checks will be run by NDOC. UNLV research staff will review all records and code the recidivism data. These data will be entered into a SPSS database and merged with the original database. Data analysis will include basic descriptives, bivariate analyses and multivariate techniques such as logistic regression. These techniques will allow for the identification of correlates related to both program completion and recidivism. SPSS will be used to conduct all analyses.	Nevada Department of Corrections-FPT	Koetzle, Deborah		16,610	9/30/2012

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Health and Medical Services		UNLV		Translation of Evidence-Based PE in Elementary Schools	The specific aims of this project are to: 1. Identify strategic translation and dissemination tactics that target principals, PE teachers, district superintendents/district PE coordinators, school board members, and members of PTA. 2. Refine our existing brochure and develop new written and video (DVD and digital format) translation and dissemination materials. 3. Conduct translation and dissemination using the strategies and products developed in Aims 1 and 2.	Robert Wood Johnson Foundation	Lounsbury, Monica		19,600	7/31/2012
Health and Medical Services		UNLV		Community Health Clinical Teaching: A Virtual Poverty Simulation in Second Life	The purpose of this study is to develop a poverty simulation for community health (CH) nursing students through the online virtual world of Second Life and to evaluate the pedagogical effectiveness of this active learning virtual experience.	National League for Nursing	Menzel, Nancy		12,040	9/30/2012
Health and Medical Services		UNLV		Southern Nevada Health District Accreditation Proposal	Dr. Nancy Menzel will be the MAPP consultant through a subaward to the University of Nevada, Las Vegas (UNLV) where she is an associate professor. She is also uniquely positioned to assist in the accreditation as a current member of the SNHD BOH. She has already started the MAPP process with the District and has completed the Vision phase and the Community Themes and Strengths Assessment. During the funding period, Dr. Menzel will work with the SNHD and local organizations and community members to complete the Local Public Health System Assessment and Forces of Change Assessment, and will work with the OOE to complete the Community Health Status Assessment. Using the assessment information, she will draft a Community Health Assessment document. She will also create a strategic plan for completing Phases 4-6 of the MAPP process which will lead to a completed Community Health Improvement Plan.	Southern Nevada Health District - FPT	Menzel, Nancy		14,000	5/31/2012
Health and Medical Services		UNLV		Behavioral Risk Factor Surveillance System	The Cannon Survey Center (CSC) is fully equipped with the necessary resources and staff for collecting data for the Nevada statewide Behavioral Risk Factor Surveillance System. This will consist of collecting a minimum of 4,000 surveys between February 1, 2011 and February 28, 2012, with 1/12 of the surveys collected during each calendar month. Adhering to the methodology and procedures set forth in the BRFSS User's Guide, the CSC will conduct 334 surveys of randomly selected Nevada adults (age 18 or older) using the questionnaire provided by the NSHD.	Nevada Department of Health and Human Services - FPT	Moonie, Sheniz		316,950	2/28/2013
Health and Medical Services		UNLV		Nevada Immigrant Resource Project	The Nevada Immigrant Resource Project (NIRP) will serve as a center for immigration-related information and legal education. NIRP will engage in community outreach and education to improve immigrant access to justice and justice system. The Project will collaborate with community partners to improve service to immigrant communities, provide training and consultations to community partners, conduct outreach to immigrant communities, and provide direct legal representation to immigrant victims of crime. In conjunction with its outreach and training efforts, NIRP will develop materials and training modules for use in its own efforts at outreach and training, and serve as a reference and guidance to law enforcement agencies, government service providers, and other non-governmental organizations who work with immigrant communities.	Bureau of Justice Assistance	Morrison, Angela		350,000	7/31/2012
Health and Medical Services		UNLV		Environmental Determinants of SLE Among African Americans in Coastal SC and GA	Dr. Peden-Adams is an expert in the field of toxicology. She will oversee the analysis of the PBDEs and PFAAs, provide her expertise in the interpretation of results and assist with dissemination of study results.	Medical University of South Carolina	Peden-Adams, Margie		31,856	6/30/2012
Health and Medical Services		UNLV		Nellis Dunes Recreational Area Dust Exposure and Human Risk Assessment	This study will address the following questions in the context of being exposed to dust at NDRA (Nellis Dunes Recreational Area): 1) What is the risk to the public when performing recreational activities at Nellis Dunes? 2) What is the risk to federal employees, or people performing other non-recreational activities at Nellis Dunes? The proposed project is a scientific study to determine the potential human health risks from dust emission exposure for the 300,000+ annual visitors who recreate at the NDRA, including non-recreating visitors and federal personnel.	U.S. Bureau of Land Management	Peden-Adams, Margie	East Carolina University	1,294,234	3/20/2014
Health and Medical Services		UNLV		Child Death Data Management for Clark County	The Nevada Institute for Children's Research and Policy will provide for data management for the Clark County CDRT, including compile raw data; complete the national data tool; enter data into the online national database; and assist in compilation and completion of the MDT Quarterly Summary Report and Recommendation sheet.	Nevada Division of Child and Family Services	Phebus, Tara		35,986	6/30/2013
Health and Medical Services		UNLV		Clark County Death Review Team Data Management and Report	It is the intent of the Nevada Institute for Children's Research and Policy (NICRP) to provide support to the Clark County Child Death Review Team (CDRT) as it conducts its mission to prevent the deaths of Clark County's children through a thorough multi-disciplinary team review. NICRP currently has a contract with the State Of Nevada to provide the basic data collection and entry which is required for state data reporting. This contract is intended to provide continued additional support, as recommended by the Clark County Office of Organization Effectiveness, in the form of statistical analysis of child deaths in Clark County. A crucial component of the review process is data collection and reporting. Without quality data, it is difficult to identify patterns in child fatalities which could lead to prevention initiatives. Collecting data will help the team to see the bigger picture surrounding child fatalities in Clark County and assist in developing data-driven, community-based prevention initiatives. Reporting data is more than just writing a report. It involves the input from team members in identifying kinds of cases to focus on and asking questions of the data collected, and providing feedback on the draft report. Developing a County report using the team's collective information and knowledge will ensure a product that the County can be proud of.	Clark County Dept of Family Services	Phebus, Tara		24,715	6/30/2012
Health and Medical Services		UNLV		Coordination for Domestic Violence Fatality Review Teams in Nevada	(1) Establishment of a Domestic Violence Fatality Review Team (DVFR) in Clark County, NV. (2) Coordination of the creation of standard protocols for teams and reviews in Nevada. (3) Creation of a standard data collection tool for Domestic Violence Fatality Review to be used in Nevada. (4) Facilitation of the state DV review team meetings.	Nevada Attorney General	Phebus, Tara		12,000	6/30/2012
Health and Medical Services		UNLV		Early Childhood Data Warehouse Project	Funding is provided for the development and maintenance of a State of Nevada early childhood database. The Nevada Institute for Children's Research and Policy (NICRP) will serve as administrator and will collaborate with the National Supercomputing Center for Energy and Environment (NSCEE) in database administration and maintenance. The database will feature a library of early childhood data in Nevada to provide resources for grant writers, policy makers, and the public and serve an intermediary function for query of more complex databases at the federal level.	Nevada Division of Welfare and Supportive Services	Phebus, Tara		118,650	6/30/2012
Health and Medical Services		UNLV		Evaluation for Southern Nevada Health District's Teen Pregnancy Prevention Project	1. Finalize data reporting protocols. 2. Finalize data reporting schedule to access participant data from SNHD system. 3. Formalize outcome evaluation protocols. 4. Collect TPP participant survey data. 5. Collect SNHD data for teen HIV/STD rates, teen pregnancy and birth rate data. 6. Track and conduct follow up interviews for TPP participants at 3 and 6 months post curriculum. 7. Complete one year end evaluation report.	Southern Nevada Health District - FPT	Phebus, Tara		155,642	9/30/2012
Health and Medical Services		UNLV		HIPPY Evaluation	Complete an outcome evaluation of the HIPPY program at the Sunrise Children's Foundation. The outcome evaluation will assess the effectiveness of the HIPPY program which will include an analysis of pre and post assessments (PPVT and AAPI) to determine: (1) at least 75% of children will increase their standard PPVT score by the end of the program year; and (2) improving parenting attitudes and behaviors. In addition, NICRP will revise the parent satisfaction survey which will be distributed to parents by staff at Sunrises Children's Foundation, and NICRP will analyze the results of the satisfaction survey. NICRP will provide consultation on the evaluation design, timeline, and operational definitions based upon the stated project objectives. As part of serving as the external evaluator, NICRP will also attend SCF-HIPPY staff meetings as needed.	Sunrise Children's Foundation	Phebus, Tara		13,650	9/30/2012

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UNLV, UNR AND DRI

HEALTH & MEDICAL SERVICES SECTOR

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Health and Medical Services		UNLV		Implementation of Choose Your Partner Carefully Campaign to Prevent Child Abuse	Campaign activities: Printing and distribution of campaign brochures, printing and distribution of campaign postcards, attendance at a minimum of 5 community events to provide information and education using campaign messages reaching an estimated 1000 people over the 6.5 month period, bus stop advertisements in at risk zip codes during the month of April, materials and information on PCANV website, and electronic newsletter about the campaign to parents and professionals working with families.	Nevada Division of Child and Family Services	Phebus, Tara		15,350	6/30/2012
Health and Medical Services		UNLV		Kindergarten Health Survey FY 12	Conduct a survey to measure the health status of children as they enter the school system.	Nevada Department of Health and Human Services Health Div	Phebus, Tara		10,304	6/30/2012
Health and Medical Services		UNLV		Kindergarten Health Survey FY 12	Conduct a parent survey to measure the health status of children as they enter the school system.	Nevada Department of Health and Human Services - Health Div	Phebus, Tara		13,739	6/30/2012
Health and Medical Services		UNLV		Kindergarten Health Survey FY 13 - FPT	Conduct a parent survey to measure the health status of children as they enter the public school system.	Nevada State Health Division	Phebus, Tara		13,705	6/30/2013
Health and Medical Services		UNLV		Kindergarten Health Survey FY 13 - State	Conduct a parent survey to measure the health status of children as they enter the public school system.	Nev. State Health Division	Phebus, Tara		10,338	6/30/2013
Health and Medical Services		UNLV		QRIS Evaluation Project	The Quality Rating Improvement System (QRIS) Pilot Program will randomly select 6 additional childcare centers in Southern Nevada to participate in the year three continuation of the pilot phase of this project. This pilot project is designed to test the rating system created by the Silver State Stars QRIS and identify areas where improvements need to be made in the rating system to make it most useful to parents and childcare centers.	United Way of Southern Nevada	Phebus, Tara		15,482	6/30/2012
Health and Medical Services		UNLV		Southern Nevada Early Childhood Advisory Council: Strategic Plan Implementation	Currently the Southern Nevada Early Childhood Advisory Council (SNECAC) has developed three goals as part of the strategic plan. Over the six month grant period, the SNECAC will work on each of the goals as well as review and revise the overall plan. More specifically, the council will 1) develop a list of individuals from both organizations and families that are willing to be contacted to participate in advocacy related activities (goal 1). 2) conduct one advocacy training to the early childhood professional community (goal 1). 3) revise the existing website and promote the council to organizations throughout Southern Nevada (goal 2), and work with all council members add their organization's information to Nevada 211 or ensure that their existing information is up to date (goal 2) 4) provide one educational workshop to the early childhood community related to medical care, parent education, family support services, or workforce development which will be decided at the first council meeting (goal 3), and 5) provide one education awareness event/resource fair targeted toward families in the community regarding the importance of early childhood development (goal 1 and 3).	Nevada Public Health Foundation	Phebus, Tara		10,000	6/30/2012
Health and Medical Services		UNLV		Cancer in Nevada - Phase 2	Create and provide a report on cancer.	Nevada Department of Health and Human Services - FPT	Pinheiro, Paulo		12,671	6/29/2012
Health and Medical Services		UNLV		INBRE - Effects of Neonatal Maternal Separation on Behavioral Responses to Amphetamines	The goal of the proposed project is to determine the effects of early life stress on behavioral sensitivity to amphetamines using the rodent neonatal maternal separation model. Previous studies in our lab have demonstrated no effect of daily maternal separation during the first week of postnatal development on subsequent behavioral responses to d-amphetamine in adult rats (Hensleigh, Smedley and Pritchard, 2011). Recent unpublished data from our lab indicate that a longer period of maternal separation (two weeks) produces sex-dependent alterations in subsequent sensitivity to the locomotor activating effects of the closely related psychostimulant drug, methamphetamine. It will be important to determine whether a longer period of separation has similar effects on sensitivity to d-amphetamine. Specifically we will subject neonatal rats to daily maternal separation or a handling control procedure throughout the first two weeks of postnatal life. During early adulthood, rats will be tested for the locomotor activating and stereotype-inducing effects of acute and sub-chronic d-amphetamine administration. Blood and brain tissue samples will also be analyzed for corticosterone and brain-derived neurotrophic factor (BDNF), respectively, as physiological markers of stress reactivity.	University of Nevada, Reno	Pritchard, Laurel		27,360	5/31/2012
Health and Medical Services		UNLV		TGF-Beta Family Regulation of Epithelial Morphogenesis	The research proposed here will address interactions between morphogens in the transforming growth factor family and those that stimulate the receptor tyrosine kinase (RTK) pathway. We will use genetic methods to investigate interactions in whole tissues, while the tissue grows or reorganizes.	National Institutes of Health	Raftery, Laurel		705,951	4/30/2013
Health and Medical Services		UNLV		CAT Project	CAT Dissemination - training and administering of CAT test.	Tennessee Technological University	Reiber, Carl		6,000	6/30/2012
Health and Medical Services		UNLV	University of Nevada, Reno	INBRE - Administration	As the Nevada INBRE Program Coordinator (PC) I will work with the PI (James Kenyon), the external advisory board and all the relevant Nevada institutions to facilitate the activities of the INBRE grant as outlined in the specific aims of the grant. I will also travel to appropriate meetings to disseminate, enhance and integrate Nevada INBRE activities both within- and outside the state of Nevada. My responsibilities will also entail oversight of the mentoring component of the program, oversight of the UNLV INBRE UROP program and the hiring and supervision of the INBRE outreach coordinator based at UNLV.	National Institutes of Health	Reiber, Carl		309,435	5/31/2012
Health and Medical Services		UNLV		Career: Asymmetries in Infant Processing of Faces-Origins and Implications	Objectives: 1) examine how greater experience with certain types of faces affects infant face processing and social category learning. 2) include stimulus faces of both sexes and various races in studies so as to expand knowledge about face processing and social development beyond response to facial stimuli that have commonly been used (i.e. Caucasian female faces) 3)help UNLV attract and retain exceptional students by offering a course that applies psychological research to promote social justice within the community and by providing a research training environment that uses traditional and innovative research methods appropriate for investigating infant development.	National Science Foundation	Rennels, Jennifer		400,024	4/30/2013
Health and Medical Services		UNLV		Shock and Vibration Isolation System for Patient Litters in Ground and Air Medical Evacuation	a. To develop a finite a kit capable of mitigating shock and vibration transmitted to litter patients, experienced during routine air and ground MEDEVAC, in accordance with established design requirements. b. The kit design will be verified during the development phase and validated in ground and air ambulance.	Battelle Energy Alliance, LLC	Reynolds, Douglas		720,000	5/31/2012
Health and Medical Services		UNLV		Performance Enhancement with Patterned Electrical Neuromuscular Stimulation (PENS)	A randomized experimental design will be used to test the effect of 6 weeks of PENS training on sprint speed.	Accelerated Care Plus Corporation	Rubley, Mack		29,844	12/31/2012
Health and Medical Services		UNLV		Positive Behavior Support: Building Capacity	Provide training in positive behavior support (PBS) to families and professionals of individuals with autism spectrum disorders and challenging behaviors. Three levels of training workshops will be provided. Level 1 (universal) includes introductory workshops on autism, challenging behavior, and PBS. Level 2 (secondary) includes workshops on behavioral intervention strategies. Level 3 (tertiary) includes an intensive 2-day family and professional training on developing behavior plans for challenging behavior.	Nevada Department of Health and Human Services	Schaefer-Whitby, Peggy		85,754	6/30/2012

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Health and Medical Services		UNLV		An Experimental Test of Senescence and Aging Mechanisms in a Free Living Organism	This Research Opportunity Award proposal seeks to examine natural genetic variation in worker longevity and determine flight muscle stress and protein damage, cellular protective mechanisms and functional senescence in workers with differing longevity.	National Science Foundation	Schiller, Martin		691,182	7/31/2012
Health and Medical Services		UNLV		Efficient Algorithms for Motif Search	1. Oversee all biological aspects of the project. 2. Guide the computer scientists on choice of Motif models and selection of test data. 3. Provide feedback on Project specific algorithms developed during the term of the Agreement. 4. Provide a Postdoctoral fellow, who will also work on biological aspects of the project as well as guidance for computer scientists. 5. Postdoctoral fellow will also be expected to contribute to all project developments.	University of Connecticut-FPT	Schiller, Martin		112,890	9/29/2014
Health and Medical Services		UNLV		Comparing Medication Errors Between Internationally Educated Nurses and American Educated Nurses	In partnership with 9 community hospitals, a research team led by UNLV researchers will implement a retrospective case control study and advanced multivariable analysis techniques to compare medication errors by internationally educated nurses (IENs) and American educated nurses (AENs). The project objective is to examine potential differences in medication errors between IENs and AENs. The ultimate goal is to help improve patient safety and quality of care in hospitals, as well as in other healthcare settings.	National Council of State Boards of Nursing	Shen, Jay		211,721	8/31/2013
Health and Medical Services		UNLV	University of Nevada, Reno	A Collaborative Project to Prepare Advanced Practice Nurses and Nurse Executives at the Doctorate Level	Manage and coordinate AEN Project activities at the UNLV campus. This includes coordinating the curriculum activities working with the Project Director on the objectives of the project and preparing reports.	Health Resources & Services Admin.	Smyer, Patricia		105,775	6/30/2012
Health and Medical Services		UNLV		Advanced Education Nursing Traineeship	The purpose of this proposal is to apply for traineeships with the AENT Program the the University of Nevada, Las Vegas (UNLV) School of Nursing (SON). This funding would support students in Master of Science (MSN) and Doctor of Philosophy (PhD in Nursing) Programs. These traineeships will provide funding that will pay all or part of the costs of the tuition, books, and fees of the students in these programs of advanced nurse education and the reasonable living expenses during the period for which the traineeship is provided.	Health Resources & Services Admin.	Smyer, Patricia		60,325	6/30/2012
Health and Medical Services		UNLV		Jonas Scholar Program for DNP and PhD Student	The PhD and DNP faculty of the SON will select 2 Jonas Scholars taking into account GPA, GRE scores, scholarly activity and contributions as well as the promise of becoming a successful faculty member within a SON. After discussion with the PhD and DNP faculty, it was decided to incorporate the academic leadership and research/project leadership skills. The leadership plan involves working with dual mentors, one of which will be the Dean of the School of Nursing (the Leadership Mentor). The students will enter into an agreement with Dean Yucha for specific goals they wish to achieve related to academic leadership and the student will design and complete a leadership project during year one. The other mentor will be the Research Leadership Mentor (the dissertation chair) or the DNP Leadership Mentor (the DNP Project chair) and this occurs in year 2. The unique structure of this leadership plan was developed to expose the student to the intricacies and leadership skills required within a SON and identify leadership skills needed for the research arena. The Research Leadership Mentor, who is an expert and leader in the field identified by the student, will assist the student to develop leadership in the area of research (PhD) or translational evidence based practice (DNP). The student will learn how to build a research agenda or to implement evidenced based practice interventions to become a leader in the appropriate field. Since the purpose of the second leadership component really is about becoming a leader in the specialized area of research or DNP project work the student has chosen it is expected that they will work closely with ongoing research in the mentor's area of expertise. A primary objective is to guide the student to a successful completion of the PhD or the DNP Program.	Jonas Center for Nursing Excellence	Smyer, Patricia		20,000	7/31/2014
Health and Medical Services		UNLV		Nurse Faculty Loan Program	The purpose of this grant is to provide funding to make loans available to MSN and PhD in Nursing students who will become qualified nursing faculty.	Health Resources & Services Admin.	Smyer, Patricia		102,248	6/30/2012
Health and Medical Services		UNLV		Grant to Reduce Violence Against Women of Campus	The project will address the following statutory purpose areas: 1) Establish and implement a campus wide protocol and coordinate services that effectively identify and respond to violence among campus community members; 2) Implement primary prevention programs on campus; 3) Train campus police and conduct board members on the issues of sexual assault, domestic/dating violence, and stalking; 4) Create and disseminate information to the UNLV campus at large about resources and options for victims of crime 5) Enhance response services for students by developing and coordinating UNLV opportunities to utilize campus programs and community support systems.	Office On Violence Against Women	Souza, Jay		299,960	9/30/2012
Health and Medical Services		UNLV		Estrogen Effects After a Crush Muscle Injury and Acute Exposure to Hypobaric Hypoxia	This project will consist of two phases: 1) to validate a HH model for mice with lower extremity crush muscle injury and 2) to test whether estrogen attenuates neutrophil and macrophage infiltration, pro-inflammatory cytokine production, and altered gene expression in lower extremity crush-injured muscle exposed to HH. The long-run usefulness of this research is that its findings might contribute to the scientific foundation for managing wounded troops in flight.	U.S. Department of Defense	St. Pierre Schneider, Barbara	University of Washington	2,263,979	2/22/2014
Health and Medical Services		UNLV		Supplemental Interlocal Agreement for Conducting the Community Facilities Energy Education Program - ARRA	This project will establish a community facility education and outreach component for the Energy Efficiency Conservation Block Grant program that would highlight the importance of renewable energy, energy efficiency, and conservation.	City of Las Vegas	Stephen, Haroon		75,000	10/25/2012
Health and Medical Services		UNLV		Health Sciences Student Support Services	The University of Nevada, Las Vegas (UNLV) is a public, metropolitan university with an undergraduate enrollment exceeding 28,000 students. With more than 220 university-degree programs, UNLV serves as the primary provider of bachelors-level, masters-level, and doctoral-level courses for the more than two million residents of Clark County, Nevada. Additionally, at UNLV, more than 700 undergraduates majoring in health-sciences disciplines are eligible to receive services from a TRiO Student Support Services (SSS) project. Annually, from 2010-2015, UNLV's HS Student Support Services project (HS-SSS) will serve 120 of the institution's SSS-eligible undergraduates who are majoring or plan to major in a health-sciences discipline. With the full support of the UNLV administration and of institutional units across the UNLV campus, HS-SSS will provide to eligible students an array of services, including course-selection advice and assistance (cf., HEA, SEC. 402D(b)(2)); individualized (i.e., tutoring) and contextualized (i.e., study groups linked to post-secondary courses) academic support (cf., HEA, SEC. 402D(b)(1)); frequent, ongoing academic-progress monitoring; financial-aid counseling (cf., HEA, SEC. 402D(b)(3)); financial-literacy counseling (cf., HEA, SEC. 402D(b)(4)); graduate/professional-school admissions and financial-aid counseling (cf., HEA, SEC. 402D(b)(5)); career-awareness activities (cf., HEA, SEC. 402D(c)(2)); and grant aid (cf., HEA, SEC. 402D(d)). These services will assist HS-SSS participants with overcoming barriers that would otherwise impede the participants' academic progress and lead to their premature departure from higher education. Furthermore, as a result of receiving these services, the HS-SSS participants will remain in good academic standing, persist in their degree programs, and graduate from the institution at rates higher than those of SSS-eligible students who receive no such assistance.	U.S. Department of Education	Sullivan, William		393,798	8/31/2012

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Health and Medical Services		UNLV		Child Welfare Training Partnership	Assist the Division of Child and Family Services in the ongoing development of an integrated child welfare training delivery system. Having such a training systems allows the State to connect the agency goals, mission, values, and mandates to training and practice.	Nevada Department of Health and Human Services-Dv of C&FS	Thompson, Joanne		1,436,037	6/30/2012
Health and Medical Services		UNLV		Southern Nevada Teen Pregnancy Prevention Project	The goal of the Southern Nevada Teen Pregnancy Prevention Project is to demonstrate the effectiveness of replicating the evidence-based prevention program (BART) in reducing Southern Nevada rates of teen pregnancy and births, or associated sexual outcome behaviors among African American youth ages 14-19.	Department of Health and Human Services	Thompson-Robinson, Melva		1,119,642	8/31/2012
Health and Medical Services		UNLV		National Youth Sports Program - SPI Award - State	Fund accessible and affordable substance abuse prevention services.	Nevada Department of Health and Human Services	Troutman, Porter		107,847	6/30/2012
Health and Medical Services		UNLV		Communities Putting Prevention to Work - ARRA	Implement a comprehensive tobacco-free policy by the Spring 2013.	Southern Nevada Health District - FPT	VanBeuge, Susan		450,000	5/31/2012
Health and Medical Services		UNLV	Nevada System of Higher Education	Simulation Center Equipment/HRSA Health Care and Other Facilities Grant	Equipment- Scan-X Processor, Digital Panoramic Machine with BW Capability, Portable MASTERSpace Workstations, Independent Simulation Mannequin Unit, Enterprise Storage Unit, server farm firewall, server replacements, Video/Audio Camera System for Oral Diagnosis/Surgery.	Health Resources & Services Admin.	West, Karen		389,269	8/31/2012
Health and Medical Services		UNLV		Understanding Transcriptional Silencing and Anti-Silencing Mechanisms in Shigella	The project will provide students research opportunities in the field of bacterial gene expression and transcriptional regulation, an area that is central to bacterial pathogenesis and health related research.	National Institutes of Health	Wing, Helen		405,488	4/30/2013
Health and Medical Services		UNLV		Ability of Dreissena Mussels to Survive High Turbidity Levels	UNLV will help design the experiment; UNLV will conduct the experiment; UNLV will analyze the experimental results; UNLV will submit reports to Jim Steele and Lake County. Find out whether or not water turbidity can impact the survival of adult quagga mussels and veligers. If so, the survival rates will be impacted at which level of turbidity.	County of Lake	Wong, David		21,452	5/31/2012
Health and Medical Services		UNLV		Decontamination for Wildland Firefighting Equipment	We propose a scientific investigation of the effectiveness of quaternary ammonium compounds, common cleaning agents used in homes, workout equipment at gyms, swimming pools, and hospitals, in killing quagga/zebra mussel veligers and adults.	U.S. Fish & Wildlife Service	Wong, David		118,283	7/31/2012
Health and Medical Services		UNLV		Effectiveness of EarthTec on Killing Invasive Quagga Mussels and Preventing Their Colonization in Lake Mead	Provide assistance with experimental design, standard sampling methods, sample analysis, data interpretation, summarization, and reports to (ESL) on the project Effectiveness of EarthTec on Killing Invasive Quagga Mussels and Preventing Their Colonization in Lake Mead.	Earth Science Laboratories, Inc	Wong, David		32,305	2/28/2013
Health and Medical Services		UNLV		Athletic Training Graduate Assistantships for Clark County School District	The funding requested is to provide 4 graduate assistantships for Certified Athletic Trainers (ATC) to be placed in various high schools in the Clark County School District, as directed by Mr. Jim Porter. Graduate Assistant ATC will be responsible to provide athletic training services for the indicated school an average of 20 hours per week for the school year. The work will begin in mid August 2011 and will conclude during mid May 2012.	Select Medical Corporation dba Select Physical Therapy	Young, John		103,815	8/31/2012
Health and Medical Services		UNLV	Nevada System of Higher Education	Clinical Simulation Center (UNLV School of Nursing)	Safe and effective management of patients through use of state of the art beds can decrease adverse events particularly related to progressive mobility, patient falls and skin breakdown. Additionally, safety related to staff injuries can be decreased with efficient and modern bed technology. Nursing students who have used beds that are designed for safety are prepared to deliver safe and effective care and develop an awareness of how technologically advanced equipment can be used to deliver this care. Additionally, safety related to staff injuries can be decreased with efficient and modern bed technology. Once nursing students are in the workforce, this knowledge can provide a base for advocacy for technologically efficient beds and equipment.	Health Resources & Services Admin.	Yucha, Carolyn		147,616	8/31/2012
Health and Medical Services		UNR		EPSCOR-TASK 6 CYB CLIMATE CHG	A Nevada statewide interdisciplinary program will be developed to stimulate transformative research, education, and outreach on the effects of regional climate change on ecosystem resources and use of this knowledge by policy makers.	National Science Foundation/Nevada System of Higher Education, Chancellor's Office	DASCALU, SERGIU-MIHAI, MALES, SAMUEL, SAIDI, MEHDI, RYAN, KERI L., KAUNECKIS, DEREK K., EWING-TAYLOR, JACQUE, MENSING, SCOTT A., BASSETT, SCOTT D., DIONI, FRANCO, DAHIR, VERONICA G., COLLOPY, MICHAEL W.		3,125,823	8/31/2012
Health and Medical Services		UNR		ENDEMIC RELAPSING FEVER	Discover the mechanisms by which relapsing fever spirochetes are maintained in nature, how diversification and speciation in pathogens contribute to the emergence of novel strains, and how both patterns relate to infection risk for humans.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	TEGLAS, MIKE B.		70,500	1/31/2014
Health and Medical Services		UNR		TICK-BORNE DISEASE IN PAKISTAN	Establish a regional surveillance program for ticks and tick-borne diseases for increasing our knowledge of risks for tick-borne disease persistence and spread as influenced by key ecological factors. Data collection efforts and analysis will train Pakistani scientists and students capacity building among the collaborating institutions.	Department of State, Bureau of Educational & Cultural Affairs/The National Academies	TEGLAS, MIKE B.		156,415	11/14/2012
Health and Medical Services	Business IT Ecosystems	UNR		COMMUNITY HEALTH ASSESSMENT	Create a Web platform that displays health information, identifies priority health needs and provide data infrastructure and capacity for assessing future community health needs.	St. Mary's Regional Medical Center	YANG, WEI		93,978	7/31/2012
Health and Medical Services	Mining, Materials, and Manufacturing	UNR		SAFETY, HEALTH & VENTILATION	Research and educational resource development projects to reduce the cost of ventilation and air cooling of underground mines while improving underground occupational, environmental and health standards. Also, a new mine ventilation and contaminant transport model will be applied and evaluated, and technical professionals will be trained on its use.	Department of Health & Human Services, Centers for Disease Control & Prevention	DANKO, GEORGE	CHRISTOPHER FULLMER	750,000	8/31/2012
Health and Medical Services		UNR		ADAPTATION AND VISUAL CODING	Investigation of the functional consequences of sensitivity changes and adaptation to visual stimuli.	Department of Health & Human Services, National Institutes of Health, National Eye Institute	WEBSTER, MICHAEL A.		1,222,684	3/31/2012
Health and Medical Services		UNR		MODULAR TRAINING IN ESCP	Enhance evidence-based practices on public health by identifying a efficient and effective dissemination strategies to increase the awareness of and access to the best available treatments by health care professionals. Results should reduce the time gap between health care professionals' knowledge of effective treatments and the delivery of those treatments in routine care.	Department of Health & Human Services, National Institutes of Health, National Institute of Mental Health	HAYES, STEVEN C.		29,536	9/25/2012
Health and Medical Services		UNR		GENDER DIFFERENCES IN HEALTH	Investigation of gender differences in the stress process leading to mental and physical health outcomes.	National Science Foundation	ELLIOTT, MARTA		105,821	8/31/2012
Health and Medical Services		UNR		STRESS PROCESS ALCOHOL MISUSE	Characterize the epidemiology of alcohol misuse.	Department of Health & Human Services, National Institutes of Health, National Institute on Alcohol Abuse & Alcoholism	ELLIOTT, MARTA		138,265	3/31/2013
Health and Medical Services		UNR		PTR-YC EARLY INTERVENTION	Conduct efficacy trials to determine whether a manualized intervention model is effective in reducing the serious challenging behaviors of children 3-5 years of age.	Department of Education/Office of Special Education & Rehabilitative Services	ROCK, STEPHEN L.		648,865	8/1/2012

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HEALTH & MEDICAL SERVICES SECTOR

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Health and Medical Services		UNR		EXCESS FLUORIDE/DRINKING WATER	Evaluation of the effectiveness of small-scale drinking water filters in West Africa for removing harmful microbes. Additional efforts will develop a system and community-based approach for controlling excess fluoride in drinking water in Northern Ghana.	Environmental Protection Agency, Office of Research & Development	BERRY,CATHERINE A.		17,351	8/31/2013
Health and Medical Services		UNR		NOVEL DSCAM LIGANDS (NSF)	Test the hypothesis that the Down Syndrome cell adhesion molecule (Dscam) receptor can respond to three different cues to guide axon growth by genetic analysis in the fruit fly (<i>Drosophila</i>) embryo.	National Science Foundation	KIDD,THOMAS		282,565	1/31/2015
Health and Medical Services		UNR		FLY RET GENE ANALYSIS	Develop a <i>Drosophila</i> model of Hirschsprung's Disease (HSCR) for elucidating the basic mechanisms of action of Ret and interacting genes related to the formation of the enteric (gut) nervous system.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke	KIDD,THOMAS		414,357	4/30/2014
Health and Medical Services		UNR		COMMISSURELESS HOMOLOGUES	Genetic variants of Robo receptors have been implicated in such diverse conditions as scoliosis and developmental dyslexia in humans, this study will test candidate genes from other species by using well-defined assays in fruit flies to identify "commissureless" or comm mutants from other species to studying control of receptor localization. Results may identify a novel locus for scoliosis and other disorders in which nerve wiring patterns are altered.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke	KIDD,THOMAS		141,000	5/31/2013
Health and Medical Services		UNR		TRANSPORT/BEEF CATTLE HORMONES	The surface and subsurface transport of steroid hormones used in animal agriculture will be examined, while assessing the risk these contaminants pose to aquatic ecosystems.	Department of Agriculture, National Institute of Food & Agriculture/University of California, Davis	KOLODZIEJ,EDWARD P.		141,041	12/14/2012
Health and Medical Services		UNR		DEPLOYABLE BIOSENSORS	Two biosensor platforms for detecting the presence of anthrax microbes will be developed and tested.	Department of Defense, Department of the Air Force	PUBLICOVER,NELSON G.		1,579,599	6/30/2013
Health and Medical Services		UNR		PREPARE HS STUDENTS BIOMED ENG	This outreach project will prepare high school students for college biomedical engineering through orientation and hands-on experience.	Department of Education/State of Nevada, Nevada System of Higher Education, Chancellor's Office	ZHU,XIAOSHAN		45,000	9/29/2012
Health and Medical Services		UNR		MAGNETORHEOLOGIC FLUIDS	The efficacy of magneto-rheological fluid (MRF) treatment for the promotion of an antitumor response alone or in combination with immunotherapy will be tested. The use of iron particles coated with anti-CD40 (ferro-immunoconjugates) for augmentation of immune activation will also be studied.	Department of Defense, United States Army Medical Research Acquisition	EVRENSEL,CAHIT A.		171,680	6/14/2012
Health and Medical Services		UNR		HCC-SMALL: TEXTSL: INTERFACE..	Expansion of TextSL, a prototype text client to aid blind users in accessing web-based social interaction opportunities offered by virtual worlds such as Second Life. Results could eventually make for a more interactive and informative world wide web for the blind.	National Science Foundation	FOLMER,EELKE	TERRI HEDGPETH	499,332	6/30/2013
Health and Medical Services		UNR		EQUIP/CNTR MOLECULAR MED	Equipment Grant for UNR Center for Molecular Medicine. Acquisition of: BD Biosciences LSR II flow cytometer, Prism 3000XP gamma camera system, Electronic medical records/practice management system, Caliper Life Sciences-IVIS Lumina, Leica fluorescent inverted microscope w/ camera, Perkin Elber Victor multi-label counter/plate reader, and patient exam room equipment.	Department of Health & Human Services, Health Resources & Services Administration	LUPAN,DAVID M.		1,422,094	8/31/2012
Health and Medical Services		UNR		EQUIP/CNTR MOLECULAR MED	Equipment grant for center for Molecular Medicine.	Department of Health & Human Services, Health Resources & Services Administration	LUPAN,DAVID M.		742,500	12/31/2013
Health and Medical Services		UNR		CT:2CARE-01.00	Medical trial of the coenzyme Q10 in Huntington's disease.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke/Massachusetts General Hospital	FARBMAN,ERIC S.		2,500	11/30/2012
Health and Medical Services		UNR		SMOOTH AND NONMUSCLE MYOSINS	Develop an in vitro, regulated smooth muscle system for studying the mechanisms incorporating physiological ratios of smooth muscle myosin (SMM) to myosin light chain kinase (MLCK) on a nitrocellulose-coated coverslip.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases	CREMO,CHRISTINE R.		1,613,960	7/31/2012
Health and Medical Services		UNR		MECHANISMS IN SMOOTH MUSCLE	Characterize how the relationship between force generation, force transmission, and force sensing by myosin molecules in smooth muscle contribute to the mechanics of smooth muscle contraction in normal and disease states.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	BAKER,JONATHAN		1,342,959	6/30/2012
Health and Medical Services		UNR		CARDIAC MYOCYTE CONTRACTILITY	The effects of altered actin-myosin mechanics on i) cardiac myocyte mechanics; ii) mechotransduction in cardiac myocytes; and iii) cardiac myocyte hypertrophy will be studied to provide important insights into how actin-myosin mechanics influence cardiac myocyte signaling and hypertrophy. The results may establish new techniques for studying the molecular basis for the pathogenesis of cardiomyopathies.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	VALENCIK,MARIA L.		384,480	3/31/2013
Health and Medical Services		UNR		MYOSIN LIGHT CHAIN KINASE	Factors influencing myosin light chain kinase - smooth muscle myosin (MYLK-SMM) interactions are to be determined using a wide range of biochemical, kinetic, and imaging techniques. This knowledge will increase our knowledge base of the mechanisms by which MYLK tunes smooth muscle contraction in normal and disease states.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	CREMO,CHRISTINE R.		478,807	5/31/2015
Health and Medical Services		UNR		YEAST PRION FACTOR (PSI+)	Misfolding of yeast proteins into amyloid-like aggregates, similar to neurodegenerative disease in humans will be investigated.	Department of Health & Human Services, National Institutes of Health, National Institute of General Medical Sciences	LIEBMAN,SUSAN		815,879	8/31/2013
Health and Medical Services		UNR		MECH KINESIN SELF-REGULATION	Protein interactions regulating smooth muscle are to be mapped at the amino acid resolution using 3D mass spectrometry.	Department of Health & Human Services, National Institutes of Health, National Institute of General Medical Sciences/Northwestern University	CREMO,CHRISTINE R.		35,250	6/30/2012
Health and Medical Services		UNR		INTELLIGENT ROBOTIC DECISIONS	Advancing NASA's computer vision, robotics, and visualization technologies, in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames, to improve planetary exploration and related sciences.	Department of Defense, Department of the Navy	GOODMAN,PHILIP H.		271,513	9/30/2012
Health and Medical Services		UNR	UNLV	GERIATRIC TRAINING 11-12	Development retraining program, Geriatric Faculty Scholars, will provide geriatric medicine faculty training for physicians, dentists, and mental and behavioral health professionals within the Nevada System of Higher Education in the Medical and Dental Schools through a mini-fellowship experience.	Department of Health & Human Services, Health Resources & Services Administration	CHAU,DIANE		586,674	6/30/2012
Health and Medical Services		UNR		CLINICAL RES ASSIST-OCHS 11-12	Funds a clinical research assistant for oncology research.	Department of Veteran's Affairs/Sierra Veteran's Research	MACKINTOSH,FREDERICK R.		77,096	6/30/2012

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Health and Medical Services		UNR		GERIATRIC TRAINING	Geriatric medicine faculty training for physicians, dentists, and mental and behavioral health professionals within the Nevada System of Higher Education in the Medical and Dental Schools.	Department of Health & Human Services, Health Resources & Services Administration	CHAU,DIANE		143,785	6/30/2012
Health and Medical Services		UNR		EFFECTS CDDO-ME ON GVHD & GVT	Therapies will be developed to target molecular defects in cute myeloid leukemia with reduced toxicity to normal tissues and more durable remissions for all subsets of acute myeloid leukemia.	Department of Health & Human Services, National Institutes of Health/University of Texas	MURPHY,WILLIAM J.		40,411	8/31/2012
Health and Medical Services		UNR	Univ of NM	ANTHRACIS: ANTICAPSULAR MAB	Affinity roles of immune agents. IgG subclass and mAb, as independent variables influencing protective activity are to be studied to identify <i>in vitro</i> correlates of protection. The cellular and molecular basis for protection afforded by poly-γ-d-glutamic acid (γDPGA) antibodies will be a main focus.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	KOZEL,THOMAS R.		2,108,035	11/30/2012
Health and Medical Services		UNR		RCE: INHALATIONAL MELIOIDOSIS	Development of a point-of-care immunoassay for detecting secreted bacterial antigens in serum and urine for early diagnosis of melioidosis.	Department of Health & Human Services, National Institutes of Health/University of California, Irvine	AUCOIN,DAVID PAUL		735,138	4/30/2012
Health and Medical Services		UNR		KSHV LATENT DNA REPLICATION	The overall goal of this project is to elucidate the replication mechanism of KSHV during latent infection. Kaposi's sarcoma associated Herpes virus (KSHV) predominantly infects Bcells and endothelial cells and persists indefinitely in the infected hosts with the expression of a limited number of genes.	Department of Health & Human Services, National Institutes of Health, National Cancer Institute	VERMA,SUBHASH C.		739,530	8/31/2012
Health and Medical Services		UNR		CHARACTERIZATION OF HCMV UL84	Determine a role for the post translational modifications of ubiquitination and CK2-mediated phosphorylation, and elucidate the complete set of cellular/viral factors interacting with specific elements within oriLyt.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	PARI,GREGORY S.		784,949	4/30/2015
Health and Medical Services		UNR	InBios Int'; Battelle	ANTHRAX POC DIAGNOSTIC	An immunoassay that identifies the presence of two or more distinct Aspergillus specific antigens, focusing on anthrax, is to be developed and tested.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	KOZEL,THOMAS R.		718,102	4/30/2016
Health and Medical Services		UNR		HCMV UL84 SUPPLEMENT	The post translational modifications of the UL84 protein associated with human cytomegalovirus (HCMV), a beta herpes virus are to be characterized. Additionally, the interaction of UL84 with other viral encoded factors will be investigated.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	PARI,GREGORY S.		41,779	4/30/2015
Health and Medical Services		UNR		DIAG HISTOPLASMOSIS HIV/AIDS	Protocols for immunization of mice to produce reactions with Histoplasma capsulatum polysaccharide antigens will be optimized. Hybridomas that produce monoclonal antibodies reactive with H. capsulatum polysaccharide antigens will be developed, cloned and screened for reactive effectiveness.	Department of Health & Human Services, National Institutes of Health/Immuno Mycologics Incorporated	KOZEL,THOMAS R.		164,885	6/30/2012
Health and Medical Services		UNR		MYCOTOXIN ANTIBODY	Determine if anti-mycotoxin monoclonal antibodies, alone and modified with nanoparticles, can prevent the mycotoxin-mediated inhibition of protein synthesis in human cells <i>in vitro</i> .	Department of Defense, Department of the Air Force/ADA Technologies	HUNTER,KENNETH W.		46,389	4/30/2012
Health and Medical Services		UNR		TARGET INVASIVE ASPERGILLOSIS	Develop an immunoassay for diagnosis of invasive aspergillosis. The ultimate product will be an immunoassay that detects the presence of two or more distinct Aspergillus-specific antigens in serum and urine.	Department of Health & Human Services, National Institutes of Health, National Institute of Allergy & Infectious Diseases	KOZEL,THOMAS R.		404,853	3/31/2012
Health and Medical Services		UNR		CLCA CHANNELS/VASCULAR MYOCY..	Accurately define the ionic mechanisms controlling electrical and mechanical activities in smooth muscle cells of large conduit and resistance-sized vessels associated with health and disease.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	LEBLANC,NORMAND		1,597,866	6/30/2012
Health and Medical Services		UNR		REG OF MYOMETRIAL RELAXATION..	Determine the signal transduction mechanisms unique to or altered in the human myometrium in preterm labor for developing treatments alternatives for premature labor.	Department of Health & Human Services, National Institutes of Health, National Center for Child Health & Human Development	BUXTON,IAIN		1,265,526	2/28/2013
Health and Medical Services		UNR		INTEGRIN ALLEVIATION OF MD	Develop a small-molecule discovery program to identify compounds targeting the α7 integrin gene expression to determine if compounds that increase α7 integrin expression may serve as a potential therapy for Duchenne muscular dystrophy. If successful, the compounds would then be incorporated into therapeutic strategy for muscular dystrophy.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke	BURKIN,DEAN J.		387,641	3/31/2012
Health and Medical Services		UNR		INTEGRIN ALLEVIATION OF MD	Investigate the efficacy of enhancing α7 integrin expression in myoblasts or vascular smooth muscle as effective therapy for the treatment of muscular dystrophy.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases	BURKIN,DEAN J.	DAVID L ZIMMERMAN	974,234	4/30/2013
Health and Medical Services		UNR		ANGIOGENESIS IN BREAST CANCER	Pre-doctoral fellowship support for the PI to conduct basic research on the mechanisms of angiogenesis in breast cancer using a murine model of human breast metastatic disease.	Department of Defense, United States Army Medical Research Acquisition	BUXTON,IAIN		47,161	4/30/2013
Health and Medical Services		UNR		PRECLINICAL INTEGRIN TREATM/MD	Initiate preclinical testing of candidate compounds in mouse models for treating Duchenne muscular dystrophy.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases	BURKIN,DEAN J.		342,630	5/31/2013
Health and Medical Services		UNR		CARDIAC CFTR IN HEART FAILURE	Determine the novel cardio protective role of cardiac cystic fibrosis transmembrane conductance regulator (CFTR) in cardiac hypertrophy and heart failure, and investigate the associated underlying molecular mechanisms.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	DUAN,DAYUE		368,567	12/31/2012
Health and Medical Services		UNR		OPTIMIZATION INTEGRIN MOLECULE	Perform studies on the optimization of compounds enhancing the expression of the alpha7 integrin.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases/Prothelia, Incorporated	BURKIN,DEAN J.		55,000	9/30/2012
Health and Medical Services		UNR		REGULATION OF LABOR	Determine if integrin proteins control uterine contraction and if these proteins are altered in cases of pre-term labor or in post-term pregnancies.	Department of Health & Human Services, National Institutes of Health, National Center on Minority Health & Health Disparities	BURKIN,HEATHER R.		107,924	7/31/2013

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Health and Medical Services		UNR		CONGENITAL MUSCULAR DYSTROPHY	Funding supporting a conference titled "Congenital Muscular Dystrophy: From Clinical Pathology to Underlying Scientific Mechanisms, Exploring the Role of the Myomatrix" to be held at the University of Nevada School of Medicine.	Department of Health & Human Services, National Institutes of Health, National Institute of Arthritis & Musculoskeletal & Skin Diseases	BURKIN,DEAN J.		20,000	3/31/2013
Health and Medical Services		UNR		ELEC CONTROL-GASTRIC MOTILITY	Determine whether symptoms observed in human disease when Interstitial cells of Cajal (ICC) are lost are similarly manifest in animal models.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	SANDERS,KENTON M.		1,425,220	12/31/2013
Health and Medical Services		UNR		KLHL 10...	Identify the molecular mechanism by which Kelch-like 10 (KLHL10) protein regulates spermiogenesis.	Department of Health & Human Services, National Institutes of Health, National Center for Child Health & Human Development	YAN,WEI		1,449,082	5/31/2012
Health and Medical Services		UNR		OCULOMOTOR SYSTEM	Address diagnosis, treatment, prevention of disease, disability and other health problems of the elderly through collaboration among several health professions schools and health care facilities, and training of health professional faculty, students, and practitioners.	Department of Health & Human Services, National Institutes of Health, National Eye Institute	VON BARTHELD,CHRISTOPHER S.		1,055,936	7/31/2012
Health and Medical Services		UNR		GASTRIC COMPLIANCE IN STOMACH	Determine the differences in specific populations of intramuscular (ICC-IM) in the fundus, corpus and antrum and how these differences contribute to the regional diversity of stomach response to distension following meal ingestion.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	WARD,SEAN M.		1,266,857	6/30/2012
Health and Medical Services		UNR		BESTROPHIN CHANNEL FUNC/HEART	Elucidate the function of Bestrophin chloride channel proteins in regulating cardiac excitability especially during repolarisation of cardiac action potential to provide novel insights into the role of Bestrophin channels in cardiac physiology and disease states for identifying potential therapeutic targets.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	BRITTON,FIONA C.		1,405,000	6/30/2013
Health and Medical Services		UNR		REFLEX PATHWAYS	Administrative supplement to parent grant: Notice of Availability of Recovery Act Funds for Administrative Supplements	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	SMITH,TERENCE K.		1,357,282	1/31/2013
Health and Medical Services		UNR		REG MECH INTES MOT:PPG-PROJ 1	Define more clearly the basic cellular mechanisms for gastrointestinal motility, and why dysmotilities develop in the abnormal GI tract.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	SANDERS,KENTON M., KOH, SANG DON, MUTAFOVA-YAMBOLIEVA, V.N., WARD, SEAN M. SANDERS, KENTON M., KEEF, KETHLEEN D.		5,625,428	4/30/2014
Health and Medical Services		UNR		ARRA: ID OF TREK-1 CHANNEL	Investigate the relationship of estrogen on bladder stretch receptors and its impact on female post menopausal incontinence.	Department of Health & Human Services, National Institutes of Health, National Center for Child Health & Human Development	KOH,SANG DON		351,250	4/30/2012
Health and Medical Services		UNR		ENDOCRINE DISRUPTOR ACTIONS	Develop targeting constructs, electroporate the constructs into rat embryonic stem cells, select targeted ES cells, and verify correct targeting. Correctly targeted cells will be sent to Washington State University for further analyses.	Department of Health & Human Services, National Institutes of Health/Washington State University	YAN,WEI		35,296	4/30/2012
Health and Medical Services		UNR		CONTROL OF IAS MOTILITY	Mechanisms which control anal muscle contraction and hence anal pressure will be characterized, leading to new strategies to prevent and diagnose and treat internal anal sphincter (IAS) dysfunction.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	KEEF,KATHLEEN D.		931,798	3/31/2014
Health and Medical Services		UNR	U of TX at San Antonio	REGULATION OF SPERMATOGENESIS	Highly novel study designed to reveal an unprecedented mechanism of escape from MSC1, and to identify actual functions of X-linked miRNAs that undergo escape during spermatogenesis.	Department of Health & Human Services, National Institutes of Health, National Center for Child Health & Human Development	YAN,WEI		804,727	3/31/2015
Health and Medical Services		UNR	OR Health & Sci Univ	VALIDATION/QUANTUM DOT-LABELED	Validate the use of quantum dot-labeled proteins in <i>in vivo</i> animal model systems to verify retained protein trafficking and function for potential use in biomedical diagnostic and therapeutic treatment.	Department of Health & Human Services, National Institutes of Health, National Institute of Neurological Disorder & Stroke	VON BARTHELD,CHRISTOPHER S.		366,947	8/31/2012
Health and Medical Services		UNR		IKCA CHANNELS/VASCULAR REMODEL	Examine the role of intermediate conductance Ca ²⁺ -activated K ⁺ (IKCa) channels in the development of atherosclerosis.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	MIURA,HIROTO		634,500	6/30/2012
Health and Medical Services		UNR		ARRA: IKCA CHANNELS/VASCULAR	Examine the role of intermediate conductance Ca ²⁺ -activated K ⁺ (IKCa) channels in the development of atherosclerosis.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	MIURA,HIROTO		143,737	6/30/2012
Health and Medical Services		UNR	UNLV; NVCI; GBC; TMCC; CSN; NSC	INBRE YR 7	Continued development of multidisciplinary research network focusing on improving public health by developing infrastructure and personnel to support biomedical research and education. In addition, programs to engage underserved communities in biomedical issues will be developed.	Department of Health & Human Services, National Institutes of Health, National Center for Research Resources	KENYON,JAMES L.	DIANE S LIDKE	2,995,404	5/31/2012

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Health and Medical Services		UNR		MICRO-RNAS TARGET KIT OF ICC	Investigate the role of microRNA for targeting the receptor tyrosine kinase (KIT) to inhibit the development and maintenance of interstitial cells of Cajal (ICC) in diabetic gastroenteropathy.	Department of Health & Human Services, National Institutes of Health, National Institute of Diabetes & Digestive & Kidney Diseases	RO,SEUNGIL		387,750	3/31/2013
Health and Medical Services		UNR		COBRE-PROJECT 1 2012	Renewed funding for the UNR Smooth Muscle Plasticity Center of Biomedical Research Excellence (COBRE) focusing on smooth muscle biology. The COBRE consists of 5 projects: motor defects in diabetic gastroparesis; phophoiamban and CaM Kinase II in smooth muscle plasticity; in vitro model system for determining regulatory mechanisms for smooth muscle mechanics; smooth muscle hypertrophy regulated by microRNAs and their target genes; and, stretch-dependent potassium channel regulation in overactive bladder.	Department of Health & Human Services, National Institutes of Health, National Center for Research Resources	HENNIG,GRANT W., PERRINO, BRIAN A., BAKER, JONATHAN, RO, SEUNGIL, KOH, SANG DON, SANDERS, KENTON M., YAN, WEI, WARD, SEAN M., SMITH, TERENCE K.		2,086,372	7/31/2012
Health and Medical Services		UNR		COBRE-PROJ 1 2012-16	Comprehend and manipulate the fundamental processes of signaling in cell biology relevant for human disorders, including cancer, immunological and neurological diseases, and enteric malformations.	Department of Health & Human Services, National Institutes of Health, National Center for Research Resources	VON BARTHELD,CHRISTOPHER S.		2,142,276	7/31/2016
Health and Medical Services		UNR		SIMULATION CENTER EQUIPMENT	Equipment Purchase Grant: Develop a live video system to capture real hospital operative procedures in teamwork settings to improve operative efficiency, team work, compliance, quality, and cost containment.	Department of Health & Human Services, Health Resources & Services Administration/Nevada System of Higher Education/Chancellor's Office	ZAMBONI,WILLIAM A.		303,453	8/31/2012
Health and Medical Services		UNR	UHS/MED SCHOOL ASSOCIATES SOUTH; Rocky Research	HIGH SPEED BLOOD & FLUID EQUIP	Development of prototype portable high speed blood and fluid transfusion warmer without any source of external energy for improving survival rates of hypothermic patients in remote areas.	Department of Defense, Department of the Navy	FILDES,JOHN J.	REGULATORY COMPLIANCE	3,088,200	6/30/2013
Health and Medical Services		UNR	Rocky Research; MedSchool Assoc So.	PORTABLE BODY TEMP CONDITIONER	Development of a portable medical device for stabilizing body temperature in an injured or ill patient in a remote location.	Department of Defense, United States Army Medical Research Acquisition	BROWDER,TIMOTHY D.		2,096,000	10/18/2012
Health and Medical Services		UNR	MedSchool Associates So.	EDUCATION & INJURY PREVENTION	Collaborative effort with the Center for Traffic Safety to analyze existing data to create demographic oriented educational and intervention opportunities to reduce injuries.	Department of Transportation, National Highway Traffic Safety Administration/State of Nevada, Department of Public Safety, Office of Traffic Safety	KUHLS,DEBORAH A.		90,000	9/30/2012
Health and Medical Services		UNR		DETR SATISFACTION SURVEYS	Telephone survey of the State of Nevada Department of Employment, Training, and Rehabilitation customers with respect to the Vocational Rehabilitation Services.	Department of Education/Office of Special Education & Rehabilitative Services/State of Nevada, Department of Employment, Training & Rehabilitation	DAHIR,VERONICA G.		95,714	12/31/2014
Health and Medical Services		UNR		BRFSS NEVADA 2012	Survey of health behaviors in the state of Nevada to identify risk factors.	Department of Health & Human Services, Centers for Disease Control & Prevention/State of Nevada Division of Health & Human Services, Health Division	DAHIR,VERONICA G., YANG, WEI		301,951	2/28/2013
Health and Medical Services		UNR		NV OFFICER DRIVING SAFETY	Identify safety issues experienced by Nevada Highway Patrol (NHP) officers.	Department of Transportation, National Highway Traffic Safety Administration/State of Nevada, Department of Public Safety, Office of Traffic Safety	DAHIR,VERONICA G.		4,971	6/30/2012
Health and Medical Services		UNR	UC Davis; Public Health Inst	LATINOS USING MEDICARE	Assess if disparities in Latino cancer survival disadvantages for breast, stomach and prostate cancer are due to lack of access and utilization of quality care.	Department of Health & Human Services, National Institutes of Health, National Cancer Institute	SMITH GAGEN,JULIE		156,367	6/30/2012
Health and Medical Services		UNR		FAMILY TIES	Provide technical assistance and support for the evaluation of Family TIES program for the Family-to-Family Health Information's Center.	Department of Health & Human Services, Health Resources & Services Administration/Family Ties of Nevada	ANSTEE,JAIME		10,000	5/31/2012
Health and Medical Services		UNR		FAMILY RESOURCE CENTER EVAL	Design and administer surveys at the Family Resource Center sites; analyze and report on the data.	Department of Health & Human Services, Administration for Children & Families/Washoe County School District	CHRISTIANSSEN-G,ELIZABETH J.		2,000	6/30/2012
Health and Medical Services		UNR		WORKPLACE BREASTFEEDING	Identify patterns of breast feeding initiation and duration of working mothers and identify ideal storage containers (bag or bottle) for pumped breast milk storage for maintaining levels of vitamin A and C.	Department of Health & Human Services, Centers for Disease Control & Prevention/University of California, Los Angeles	SMITH GAGEN,JULIE		20,520	6/30/2012
Health and Medical Services		UNR		ENERGY BIOFIELD THERAPY	Determine the limits of Healing Touch treatment to reduce tumor growth and symptoms of graft vs. host disease in murine models, assess the effect on immune parameters, and determine level of treatment needed for significantly affecting outcome.	Department of Health & Human Services, National Institutes of Health, National Center for Complementary & Alternative Medicine	RUNNING,ALICE F.		210,688	3/31/2012
Health and Medical Services		UNR		RURAL PATIENTS W/HEART FAILURE	Test the effects of clinical outcomes of an education intervention focused on fluid weight management designed specifically for rural patients with heart failure conditions.	Department of Health & Human Services, National Institutes of Health/University of California, San Francisco	PELTER,MICHELE M.		316,685	4/30/2012

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

HEALTH & MEDICAL SERVICES SECTOR

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Health and Medical Services		UNR		COMPARE: ELECTROCARDIOGRAPHIC	Collect and analyze electrocardiographic (ECG) data related to treatment of acute coronary syndrome to determine if frequency, characteristic or clinical consequences differ among patients treated with an early versus selectively invasive strategy.	Department of Health & Human Services, National Institutes of Health, National Institute of Nursing Research	PELTER,MICHELE M.		374,860	6/30/2012
Health and Medical Services		UNR		CYFERNET TEEN EDITORIAL BOARD	Programming and oversight of materials for the teen section of the CYFERnet web site. Provide leadership for youth related CYFER professional development activities.	Department of Agriculture, National Institute of Food & Agriculture/University of Kentucky	EVANS,WILLIAM P.		81,000	5/31/2012
Health and Medical Services		UNR		GLS YOUTH SUICIDE PREVENTION	Expanding Nevada's professional ability to address youth at risk for suicide by connecting at risk youth to professional staff via a text message system.	Department of Health & Human Services, The Substance Abuse & mental Health Services Administration/State of Nevada Department of Health & Human Services, Directors Office	EVANS,WILLIAM P.		89,653	9/30/2012
Health and Medical Services		UNR		GLS YOUTH SUICIDE PREVENT-YR#3	Expanding Nevada's professional ability to address youth at risk for suicide by connecting at risk youth to professional staff via a text message system.	Department of Health & Human Services, The Substance Abuse & mental Health Services Administration/State of Nevada Department of Health & Human Services, Directors Office	EVANS,WILLIAM P.		51,637	9/30/2012
Health and Medical Services		UNR	Lyon County	4-H YFP	Development of a state wide mentoring program for at-risk youth, Youth and Families with Promise (YFP) according to National 4-H Council guidelines.	Department of Justice, Office of Juvenile, Justice & Delinquency Prevention/National 4H Council	SMITH,MARILYN G.		82,000	3/15/2012
Health and Medical Services		UNR	KUMC Res Inst; MedSchool Assoc So.; UCLA	NUTR & CANCER PRECEPTOR EDUC	Internal Medicine and Family Medicine residents from the University of Kansas Medical Center Research Institute, Inc. and Pediatric Family Medicine residents from the University of California Los Angeles will be recruited to participate as subjects of this nutrition and cancer education study over a three year intervention program.	Department of Health & Human Services, National Institutes of Health, National Cancer Institute	ASHLEY,JUDITH M.	CHARLES MICHAEL BROOKS; ROBERT M CHAMBERLAIN; LU ANN WILKERSON	1,274,392	7/31/2013
Health and Medical Services		UNR		GAMMA-GLUTAMYL CYSTEINE (GGC)	Determine the feasibility of using gamma-glutamylcysteine (GGC) as a dipeptide precursor for GSH in modulating the oxidative damage subsequent to ischemia-reperfusion injury.	Department of Defense, United States Army Medical Research & Material Command	OMAYE,STANLEY T.		106,078	6/30/2012
Health and Medical Services		UNR		NV FSNE12-RETHINK YOUR DRINK	Implement two components of a social marketing campaign that will lead to decreased consumption of sugar-sweetened beverages among young, low-income children.	Department of Agriculture, Food & Nutrition Service/State of Nevada Department of Health & Human Services, Division of Welfare & Supportive Services	BENEDICT,JAMIE A.		98,807	9/30/2012
Health and Medical Services		UNR		IN UTERO STEM CELL TRANSPLANTA	Target the fetal immune-response and ensure the presence of a supportive microenvironment which will enable achievement of therapeutic levels of HSC engraftment following JUSCT and cure a clinically relevant sheep model of a lysosomal storage disease.	Department of Health & Human Services, National Institutes of Health, National Heart Lung & Blood Institute	ZANJANI,ESMAIL D.		2,004,537	8/31/2012
Health and Medical Services		UNR		ILLEGAL SURGERY AWARENESS	Develop and conduct outreach and awareness programs among the Latino populations in Northern Nevada on the dangers of using uncertified and unqualified individuals to perform illegal medical procedures and/or illegal purchasing of controlled medical drugs.	Nevada Public Health Foundation	BRADLEY,DREW		15,000	6/30/2012
Health and Medical Services		UNR		VETERANS COMING HOME TO COLLEG	Improving the health, well-being, and successful reintegration of military veterans returning from Operation Enduring Freedom (OEF) in Afghanistan and Operation Iraqi Freedom (OIF) in Nevada communities.	Society for the Psychological Study of Social Issues	ELLIOTT,MARTA		21,600	6/30/2012
Health and Medical Services		UNR		SMART POLICING: EVIDENCE BASED	Develop a program to prevent the diversion and abuse of prescription drugs in Washoe County for the Reno Police Department.	City of Reno, Nevada Police Department	BARTHE,EMMANUEL		34,933	4/30/2012
Health and Medical Services		UNR		CBA PROJECT	Novel candidates for anti-HIV and immunomodulatory drugs will be synthesized and evaluated for efficacies.	Katholieke Universiteit Leuven	BELL,THOMAS W.		453,048	12/31/2012
Health and Medical Services		UNR		CT:TVP-1012/PM103	Industry-sponsored clinical trial to research the effect of Droxidopa, an investigational medication, in the treatment of neurogenic orthostatic hypotension in volunteer patients with Parkinson's disease.	TEVA Neuroscience	FARBMAN,ERIC S.		20,933	6/30/2012
Health and Medical Services		UNR		CT:DROXIDOPA NOH306	Industry-sponsored clinical trial to research the effect of Droxidopa, an investigational medication, in the treatment of neurogenic orthostatic hypotension in volunteer patients with Parkinson's disease.	PPD Development	FARBMAN,ERIC S.		35,486	8/11/2015
Health and Medical Services		UNR		CT:IPX066-B09-06	Industry sponsored clinical trial to research the effect of Droxidopa, an investigational medication, in the treatment of neurogenic orthostatic hypotension in volunteer patients with Parkinson's disease.	Impax Laboratories Incorporated (administered by INC Research Group)	FARBMAN,ERIC S.		39,546	8/6/2012
Health and Medical Services		UNR		CT:DROXIDOPA NOH304	Industry-sponsored clinical trial to research the effect of Droxidopa, an investigational medication, in the treatment of neurogenic orthostatic hypotension in volunteer patients with Parkinson's disease.	Chelsea Therapeutics (administered by Atlantic Research Group)	FARBMAN,ERIC S.		16,409	1/11/2016
Health and Medical Services		UNR		CT:101JC402	Identify multiple sclerosis patients with a specific antibody in their blood against the John Cunningham virus (JCV).	Biogen IDEC Incorporated	GINSBURG,DAVID L.		5,550	6/30/2014
Health and Medical Services		UNR		CT:223AS302	Phase 3 Clinical Trial: Safety and efficacy of Dexampramipexole in patients with amyotrophic lateral sclerosis.	Biogen IDEC Incorporated	GINSBURG,DAVID L.		49,000	4/22/2012
Health and Medical Services		UNR		CT:223AS302 APP1	Phase 3 Clinical Trial: Safety and efficacy of Dexampramipexole in patients with amyotrophic lateral sclerosis.	Biogen IDEC Incorporated	GINSBURG,DAVID L.		4,465	6/26/2012
Health and Medical Services		UNR		CT:CENTOCOR 3002	Phase 3 Clinical Trial: Study to evaluate the safety and efficacy of Ustekinumab Induction therapy in patients with moderate to severe active Crohn's disease.	Centocor Incorporated	STONE,CHRISTIAN D.		2,500	10/30/2014
Health and Medical Services		UNR		CT:IPX066-B11-01	Study of carbidopa-levodopa extended-release (CD-LD ER) taken alone or in combination with carbidopa-levodopa immediate release (IR) to IPX066 followed by an open-label extension safety study of IPX066 in subjects with advanced Parkinson's disease.	Impax Laboratories Incorporated	FARBMAN,ERIC S.		1,000	10/6/2012
Health and Medical Services		UNR		CT:CENTOCOR 3003	Phase 3 Clinical Trial: Study to evaluate the safety and efficacy of Ustekinumab Induction therapy in patients with moderate to severe active Crohn's disease.	Centocor Incorporated	STONE,CHRISTIAN D.		2,500	10/30/2014
Health and Medical Services		UNR		CT:CENTOCOR 3001	Phase 3 Clinical Trial: Evaluation of the safety and efficacy of Ustekinumab Induction therapy in subjects with moderately to severely active Crohn's disease who have failed or are intolerant to TNF antagonist therapy.	Centocor Incorporated	STONE,CHRISTIAN D.		2,500	10/30/2014
Health and Medical Services		UNR		CT:M12-071	Study to determine the effect of methotrexate dose on clinical outcome and ultrasonographic signs in subjects with moderately to severely active rheumatoid arthritis treated with adalimumab (MUSICA).	Abbott Laboratories (administered by Covance)	OLECH,EWA		3,500	12/30/2012
Health and Medical Services		UNR		ATRIAL NATRIURETIC PEPTIDE REC	Determine the structure of the Atrial Natriuretic Peptide receptor by single particle electron microscopy and by electron crystallography, and elucidate transmembrane signaling mechanism as related to heart blood flow.	American Heart Association, Western States Affiliate	MISONO,KUNIO		113,052	6/30/2012

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HEALTH & MEDICAL SERVICES SECTOR

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Health and Medical Services		UNR		YEAST CELL-BASED HTS SCREEN	Development of a yeast assay to screen chemicals and drugs for inhibitors of Abeta aggregation.	Alzheimer's Association, National Office	LIEBMAN,SUSAN		189,409	8/31/2013
Health and Medical Services		UNR		GLUT4 TRAFFICKING KINETICS	Apply a recently developed kinetic assay to rapidly generate and test hypotheses about the function of novel proteins in Glut4 trafficking and to develop a model to predict/identify novel regulatory steps of diabetic insulin action.	American Diabetes Association	MASTICK,CYNTHIA C.		109,250	12/31/2012
Health and Medical Services		UNR		CT:NB301 NALTREXONE	Controlled study comparing the safety and efficacy of two doses of Naltrexone sustained release (SR)/Bupropion sustained release (SR) and placebo in obese subjects.	Orexigen Therapeutics Inc.	PLODKOWSKI,RAYMOND A.		324,900	6/30/2012
Health and Medical Services		UNR		CT:NB304 DM2	Clinical trial to evaluate Naltrexone 32mg sustained release (SR)/Bupropion 360 mg sustained release in obese subjects with Type 2 Diabetes mellitus.	Orexigen Therapeutics Inc.	PLODKOWSKI,RAYMOND A.		81,382	6/30/2012
Health and Medical Services		UNR		ZB-202 ZONISAMIDE	Phase 2, Controlled safety and efficacy study of zonisamide SR plus bupropion SR combination therapy in subjects with uncomplicated obesity.	Orexigen Therapeutics Inc.	PLODKOWSKI,RAYMOND A.		251,831	6/30/2012
Health and Medical Services		UNR		CT:AVF4349N	Observational study to characterize the clinical outcome for different patient populations with advanced breast cancer by tumor and treatment patterns; optional participation will contribute to tumor tissue collection and a DNA research repository.	Genentech Incorporated	MACKINTOSH,FREDERICK R.		35,351	11/20/2014
Health and Medical Services		UNR		CT:LIXISENATIDE ACS DM2	Evaluate the effectiveness of lixisenatide in preventing cardiovascular events by lowering the blood sugar, in patients with Type II Diabetes.	SANOFI-AVENTIS	KULICK,DOINA		95,400	2/24/2016
Health and Medical Services		UNR		CT:A-TL-52120-156	Clinical trial for DYSPORT injection (abobotulinumtoxinA neurotoxin) for treatment of cervical dystonia.	TERCICA INC	MEHTA,NIDHI		5,670	6/1/2016
Health and Medical Services		UNR		CT:BIPI 1237.5 TIO+OLODATEROL	Safety and efficacy clinical trial of orally inhaled tiotropium plus olodaterol fixed dose combination in chronic obstructive pulmonary disease (COPD) patients.	Boehringer Ingelheim	KRUMPE,PETER E.		293,362	11/29/2016
Health and Medical Services		UNR		KAPOSIS SARCOMA CANCER PATHWAY	Support for the interdisciplinary graduate program in cancer research administered through the Department of Microbiology and Immunology.	Reno Cancer Foundation Incorporated	DESTJEOR,STEPHEN C.		12,000	9/30/2012
Health and Medical Services		UNR		RENO CANCER FELLOWSHIP:NUTRITI	Support for one medical student to participate in a 10 week nutrition and cancer research project.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		5,000	10/31/2012
Health and Medical Services		UNR		RENO CANCER FELLOWSHIP:NUTRITI	Support for mentoring medical students in clinical research experiences that increase their knowledge of nutrition in cancer prevention and therapy; and to provide additional experiences related to cancer prevention and therapy.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		5,000	10/31/2012
Health and Medical Services		UNR		RENO CANCER FELLOWSHIP:NUTRITI	Provide an integrated education and training experience for one medical student that will promote his/her understanding of the role of nutrition in cancer prevention and therapy.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		7,000	10/31/2012
Health and Medical Services		UNR		CT:HGT-FIR-054	Phase 3 Trial: Icatibant injection for treatment of patients with acute attacks of hereditary angioedema.	Jerini United States Incorporated	HOGAN,MARY BETH		144,713	11/12/2014
Health and Medical Services		UNR		RENO CANCER FOUNDATION	Support one medical student for training and experiential learning that promotes the role of nutrition in cancer prevention and therapy.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		7,000	10/31/2014
Health and Medical Services		UNR		CT:DX-88/24	Phase 4 Study: Determine the rate of anaphylaxis to ecallantide, a newly approved therapeutic agent for hereditary angioedema (HAE).	Dyax Corporation	HOGAN,MARY BETH		8,200	12/30/2016
Health and Medical Services		UNR		RENO CANCER FELLOW: NUTRITION	Support one medical student for training and experiential learning that promotes the role of nutrition in cancer prevention and therapy.	Reno Cancer Foundation Incorporated	SCOTT,BARBARA J.		7,000	10/31/2015
Health and Medical Services		UNR		CYSTIC FIBROSIS DIALOGUE STUDY	Observational Clinical Study: Medical history questionnaire and digital audio recording of conversations and interactions of clinical staff with the patients at Cystic Fibrosis Center.	Verilogue, Inc.	BUDHECHA,SONIA K.		2,500	1/22/2013
Health and Medical Services		UNR		TREK-1 IN PRETERM LABOR	Regulation of myometrial relaxation in spontaneous pre-term child birth labor.	March of Dimes	BUXTON,IAIN		394,226	2/28/2013
Health and Medical Services		UNR		TREATMENT FOR PTL	Develop an effective treatment for preterm labor that results in a healthy fetus remaining in the mother's womb until normal term.	Bill & Melinda Gates Foundation	BUXTON,IAIN		100,000	10/31/2012
Health and Medical Services		UNR		VRCCS IN HEART FAILURE	Determine the molecular mechanisms for the function role of ion channels in the heart, specifically the chloride channel, ClC-3, role in the ionic and structural remodeling of the hypertrophic and failing heart.	American Heart Association, Western States Affiliate	DUAN,DAYUE		140,000	6/30/2012
Health and Medical Services		UNR		GATING MECHANISMS OF CFTR FY12	Study the regulation mechanisms of the R domain that govern activation gating of cardiac cystic fibrosis transmembrane conductance regulator (CFTR) channels.	American Heart Association, National Center	WANG,GUANGYU		231,000	6/30/2014
Health and Medical Services		UNR		TRPC1, STIM1 AND ORAI 1 FY12	Conduct surveys and meetings generating data for the Nevada SCSN and CCP HIV/AIDS services as required by HRSA.	American Heart Association, National Center	NG,LIH CHYUAN		77,000	6/30/2012
Health and Medical Services		UNR		INHIBITION MECHANISMS/CFTR	Study the regulation mechanisms of the R domain that govern activation gating of cardiac cystic fibrosis transmembrane conductance regulator (CFTR) channels.	American Heart Association, National Center	WANG,GUANGYU		7,002	6/30/2012
Health and Medical Services		UNR		TRPC1, STIM1 AND ORAI 1	Conduct surveys and meetings generating data for the Nevada SCSN and CCP HIV/AIDS services as required by HRSA.	American Heart Association, National Center	NG,LIH CHYUAN		3,894	7/1/2012
Health and Medical Services		UNR		UTERINE NITROPROTEOME	Identify S-nitrosylated proteins in human uterine smooth muscle tissue and analyze regulatory proteins involved in contraction and relaxation for differential S-nitrosylation in laboring versus non laboring tissue.	Pharma Foundation	ULRICH,CRAIG		20,000	12/31/2013
Health and Medical Services		UNR		CMD CONFERENCE	Support for a competitive travel and accommodation award for 5 postdoctoral and graduate students to attend the Muscular Dystrophy Association conference.	Muscular Dystrophy Association	BURKIN,DEAN J.		7,000	8/1/2012
Health and Medical Services		UNR		STEM CELL MIGRATION STROKE Y1	Investigate the role of electrical field-directed neural stem cell migration in ischemic stroke.	American Heart Association, Western States Affiliate	WAN,QI		70,000	12/31/2012
Health and Medical Services		UNR		STEM CELL MIGRATION STROKE Y2	Investigate the role of electrical field-directed neural stem cell migration in ischemic stroke.	American Heart Association, Western States Affiliate	WAN,QI		70,000	12/31/2013
Health and Medical Services		UNR		ALLOMAX ACELLULAR DERMAL MATRX	Analyze the collagen content of the Allomax Product and characterize effect following implantation in a small animal model.	Davol Incorporated	KHIABANI,KAYVAN T.		26,001	10/6/2012
Health and Medical Services		UNR		THE CARE VOG STUDY	An environmental-epidemiological study assessing the cardio-respiratory health status of volcanic air pollutions exposed residents at the Kilauea Volcano, Hawaii.	SIGMA THETA TAU INTL	LONGO,BERNADETTE M.		4,975	5/31/2012
Health and Medical Services		UNR		VIDEO-BASED INTERVENTION	Evaluation of a Video-based Intervention to promote condom use among Chinese college students.	American Nurses Foundation	TUNG,WEI-CHEN		2,792	9/30/2012
TOTAL									90,893,307	

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AEROSPACE & DEFENSE SECTOR

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Aerospace and Defense		UNLV		Actinide Foil Production for MPACT Research	The purpose of the research proposed is to complete the development and demonstration of the RTIL technology/methodology to prepare uDU and Th samples for use in constructing fast-neutron detectors.	Battelle Energy Alliance, LLC	Beller, Denis		156,897	9/30/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA EPSCoR RID - Travel Award	The Nevada EPSCoR program proposes to allow nine travel awards to faculty researchers and their students at the University of Nevada Reno and Las Vegas for the purpose of initiating and strengthening collaborations with NASA center personnel. The awards will provide seeding resources to potential future research in the areas of Earth-climate change science, planetary geology, astrophysics, and systems engineering for exploration and human space flight for at least eleven faculty and five to ten students at ARC, GRC, JSC, GSFC, DRC, MSFC and LARC.	NASA EPSCoR	Beller, Denis		5,759	3/31/2013
Aerospace and Defense		UNLV		Efficient Thermal Management and Temperature Amplification for Lunar Based Systems	The proposed project is the development of thermal management systems based on heat pumps that replace mechanical compressors with thermally driven sorption system of Solid-Gas Sorption Heat Pumps.	National Aeronautics and Space Administration	Chen, Yitung		146,828	9/30/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNLV	Nevada System of Higher Education	Alteration of Mars-Analog Clay Minerals Under Mars-Like Conditions	In this proposal, we are requesting funding to collect preliminary data for a proposal to be submitted to the Mars Fundamental Research Program in the summer of 2011. Clay minerals have been documented on the surface of Mars, however, they are most likely very ancient. The minerals have likely therefore been subjected to pedogenic and diagenetic alteration since their formation. Nontronite, a smectite clay that has been detected on Mars, will be purchased, and then altered in low-temperature Mars-analog experiments in Hausrath's laboratory, and hydrothermal Mars-analog experiments in Hurowitz's laboratory. Funding is requested for a student to assist both Hausrath and Hurowitz with the proposed experiments. The results of the work should provide useful preliminary data for a multi-year proposal.	National Aeronautics & Space Administration Space Grant	Hausrath, Elisabeth		20,000	8/31/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNLV		An Investigation Into Phosphate Mobility On Mars	The objective of this proposal are to interpret phosphate mobility on Mars to better understand the aqueous history and potential for life on the planet.	National Aeronautics and Space Administration	Hausrath, Elisabeth		84,000	7/26/2013
Aerospace and Defense		UNLV		Exploration of Biological Dark Matter in Geothermal Springs	This work addresses NASA's Scientific Goal to understand the origin and evolution of Earth life and the biosphere, which is a specific focus within the Exobiology and Evolutionary Biology program as part of the research emphasis entitled Early Evolution of Life and the Biosphere. The genomes of modern microbes represent natural repositories of the evolutionary history of life on Earth. Our work will significantly expand our knowledge of this molecular record by accessing whole genomes of major new groups of extremophilic Bacteria and Archaea that are currently known only by a single gene sequence. Since these organisms inhabit primitive Earth-like environments, genomic and emergent physiological data represent key pieces in the puzzle of the nature of early life on Earth, and may provide important insights into the early evolution of key microbial processes. In addition, this project provides a framework for understanding microorganisms with potentially fundamentally different metabolisms, which is part and parcel for evaluating the question Does life exist elsewhere in the universe?	National Aeronautics and Space Administration	Hedlund, Brian	Leland Stanford Junior University Arizona State University University of California	386,891	9/25/2014
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA EPSCoR Travel Award	The Nevada EPSCoR program proposes to distribute nine travel awards to faculty researchers and their students at the University of Nevada, Reno and Las Vegas for the purpose of initiating and strengthening collaboration with NASA center personnel. The awards will provide seeding resources to potential future research in the areas of Earth-climate change science, planetary geology, astrophysics and systems engineering for exploration and human space flight for at least eleven faculty and five to ten students at ARC, GRC, JSC, GSFC, DRC, MSFC and LARC.	NASA EPSCoR	Latifi, Sharam		3,953	3/31/2013
Aerospace and Defense		UNLV		Remote Detection of WMD Based on Hyperspectral Data Processing	The main objective of this proposal are 1) to increase knowledge of hyperspectral imaging (HSI) capabilities to detect WMD, and 2) to improve detection by investigating the synergy of simultaneous analysis of spectral signatures and wideband data contents.	Defense Threat Reduction Agency	Latifi, Sharam		156,957	6/14/2015
Aerospace and Defense		UNLV	Nevada System of Higher Education	Short Course in Biorobotics	The main objective of this short course is to present Nevada students and teachers with hands-on experience that combines principles of experimental biology and engineering in an integrative approach to biorobotics.	National Aeronautics and Space Administration	Lee, David		48,676	8/30/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	Nevada NASA Space Grant Consortium - MNGT	The Associate Director (AD) will take a leadership role in the overall program areas of Workforce Development, Research Development and Fellowships. Scholarships and Internships in conjunction with the Director, program coordinator and the NSHE sponsored programs office. The AD will work with the Director to ensure effective investments are made in strategic research and education activities in areas that benefit the state of Nevada and NASA in regards to aeronautics, astronautics, Earth systems science, space science, and related developing technologies. As such the AD will ensure timely implementation of state-wide solicitations, participate in annual meetings, submit timely progress reports and aid in the overall program administration at the state-level.	National Aeronautics and Space Administration - Space Grant	Lepp, Stephen		47,121	5/15/2015
Aerospace and Defense		UNLV	Nevada System of Higher Education	Research Infrastructure Development - Undergraduate Research and Technology Development Researcher Scholarship	To provide administrative oversight on the Research Infrastructure Development Undergraduate Research and Technology Development Researcher Scholarship Award Program. Will oversee four undergraduate research intense scholarship awards that will be made available to UNLV students conducting research in a team-like environment with a UNLV faculty mentor.	NASA EPSCoR	Lepp, Stephen		26,837	5/31/2012
Aerospace and Defense		UNLV		K15 Neutron and Gamma Modeling Phase 1, 2, 3 - Task 42	Develop model in MCNPX, create source term, execute radiation transport model and run code to estimate Neutron and Photon doses at two locations within the DAF from the Varian K15 LINAC; and to estimate Neutron and/or Photon dose points for other areas in the DAF as determined by NSTec. A. Estimate Neutron doses at two locations within the DAF from the K15. B. Estimate Photon doses at two locations within the DAF from K15. C. Estimate Neutron and/or Photon dose points in other areas in the DAF with up to 10 separate points for each particle type.	National Security Technologies	Lowe, Daniel		12,000	7/30/2012
Aerospace and Defense		UNLV		Black Hole Feedback and Galaxy Formation	This project will shed light on the role of BH feedback in the history of galaxy mass assembly, and also provide interesting input boundary conditions for other theoretical and observational astronomers who study mass accretion in active galactic nuclei.	National Science Foundation	Nagamine, Kentaro		449,317	7/31/2013
Aerospace and Defense		UNLV		Peta-Cosmology: Galaxy Formation and Virtual Astronomy	Develop two different types of codes (HTPM and Enzo AMR) for the petascale system Blue Waters. The novel architecture and refinement of the two codes for the Blue Waters will allow us to simulate a large cosmic volume while achieving high spatial/mass resolution.	National Science Foundation	Nagamine, Kentaro		40,000	3/31/2013
Aerospace and Defense		UNLV		Physical Properties of High-Redshift WFC3 Galaxies at z=7-10	We propose to examine the physical properties of high-z star-forming galaxies at z=7 - 10 using cosmological hydrodynamic simulations.	Space Telescope Science Institute	Nagamine, Kentaro		44,998	9/30/2013
Aerospace and Defense		UNLV	NV System of Higher Education	Physical Properties of the Early Universe in Hydrodynamic Simulations	The Hubble Space Telescope (HST) operated by NASA is one of the most valuable tools in Astronomy for studying galaxy formation, evolution and large scale structure of the Universe. However the immense distances and the limited spectrum detected from the observed objects make it difficult to extrapolate physical properties such as star formation histories and galaxy stellar mass, necessitating the utilization of cosmological hydrodynamic simulations. In this work we will use the cosmological smoothed particle hydrodynamics (SPH) code GADGET-3 to examine the physical and photometric properties of simulated galaxies in the early Universe, compare these to HST observations and make predictions for future NASA missions.	NV System of Higher Education	Nagamine, Kentaro		1,000	8/31/2012

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UNLV, UNR AND DRI

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Aerospace and Defense		UNLV		Support/Analysis for High Output DD-DT Support - Task 38	Engineering and Physics support to aid in the development of high output Deuterium (DD) and tritium (DT) Dense Plasma Focus machines that will be used by a consortium of users. Monte Carlo simulations and experimental validation of neutron flux and energy coming from these machines is to be performed. Modeling of neutron resonance spectroscopy systems is required as well as models of high Keff neutron driven assemblies.	National Security Technologies	O'Brien, Robert		175,000	8/31/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	Hands-On Multidisciplinary Engineering Course With a STEM Educator Workshop Component	Goal 1: Provide a Hands-On Design and Build class for engineering students to improve their ability to create a working solution to a complex design problem. Goal 2: Improve Engineering students communications skills. Goal 3: Provide an advance robotics workshop for K-12 STEM educators. Goal 4: Provide advance robotics workshops for K-12 students and educators.	National Aeronautics & Space Administration	O'Toole, Brendan		27,775	12/31/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA EPSCoR Travel Award	The Nevada EPSCoR program proposes to distribute nine travel awards to faculty researchers and their students at the University of Nevada, Reno and Las Vegas for the purpose of initiating and strengthening collaboration with NASA center personnel. The awards will provide seeding resources to potential future research in the areas of Earth-climate change science, planetary geology, astrophysics and systems engineering for exploration and human space flight for at least eleven faculty and five to ten students at ARC, GRC, JSC, GSFC, DRC, MSFC and LARC.	NASA EPSCoR	O'Toole, Brendan		6,100	3/31/2013
Aerospace and Defense		UNLV		Broad Emission and Absorption Lines in AGN: Contribution from Disk Winds	We propose to combine the best available hydrodynamical simulations for radiatively driven AGN disk winds with state-of-the-art multi-dimensional radiative transfer simulation to make the first quantitatively reliable predictions for the X-Ray spectral signatures (absorption and emission) which might be associated with such winds. Our spectra will be made available to the observer community for direct comparison with X-ray data.	Space Telescope Science Institute	Proga, Daniel		69,969	9/30/2013
Aerospace and Defense		UNLV		Dynamics of Matter Available for Accretion in AGN	We propose to study fluid dynamics in the central regions of active galaxies. Several key attributes of AGN, such as infall rates onto the central black hole and the geometry and rates of outward energy and momentum transfer, are determined in their central regions. However, despite many years of intensive studies, how radiation and mass outflows affect the structure of active galaxies remains uncertain, mostly because multi-dimensional geometrical effects and the dynamics of gas and dust are poorly understood. We will construct time-dependent, multi-dimensional radiation hydrodynamical simulations to study, from first principles, the morphology of central galactic flows on scales ranging from subparsec to tens of parsecs. The results of this project will reveal the basic physical properties of flows in AGN with unprecedented accuracy and detail.	National Aeronautics and Space Administration	Proga, Daniel		213,500	5/31/2014
Aerospace and Defense		UNLV	Nevada System of Higher Education	Campus Associate Director Nevada Space Grant	The Campus Associate Directors work in conjunction with the Director and Program Coordinator of the Nevada NASA Space Grant Consortium (NvSGC) by taking a leadership role on their campuses for promoting and administering the Nevada Space Grant fellowship and scholarship program.	National Aeronautics Space Administration - Space Grant	Rhee, George		4,932	7/31/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA Space Grant Consortium	Scholar/Fellow Program 2010	National Aeronautics Space Administration - Space Grant	Rhee, George		224,164	5/5/2014
Aerospace and Defense		UNLV	Nevada System of Higher Education	Near Space Weather Balloon Research	We propose to use the informal education grant money to support a program for undergraduate and high school students to build, launch and find research payloads on near space weather balloons. Near space research is an emerging field and is exciting because it is accessible. Balloon launches are a great learning and research opportunity for students. Since it is relatively easy to get to and provides an environment which is close to that of outer space, it is in this playground that students can be exposed to a rich variety of important physics and engineering problems. With the infrastructure and support of the Las Vegas Radio Amateur Club, The Las Vegas Repeater Association and the Department of Physics and Astronomy, we can give students a great opportunity to learn in an informal environment, outside of the classroom.	National Aeronautics Space Administration - Space Grant	Rhee, George		6,250	12/31/2012
Aerospace and Defense		UNLV		Rapid Dosimetry for First Responders (SHSP)	The State of Nevada Emergency Management Division has obtained funding from the Department of Homeland Security SHSP Initiative which provides support for target hardening activities to urban areas that are at high risk to terrorist attacks. UNLV's role in this project is to develop a rapid dosimetry program plan which would be used in the event of any emergency radiological events that occur in the State. The plan will be included in the Nevada Homeland Security Statewide Plan.	Clark County School District-FPT	Sudowe, Ralf		126,788	8/31/2013
Aerospace and Defense		UNLV		Rapid Dosimetry for First Responders (UASI)	The State of Nevada Emergency Management Division has obtained funding from the Department of Homeland Security Urban Areas Security Initiative which provides support for target hardening activities to urban areas that are at high risk to terrorist attacks. UNLV's role in this project is to develop a rapid dosimetry program plan which would be used in the event of any emergency radiological events that occur in the State. The plan will be included in the Nevada Homeland Security Statewide Plan.	Clark County School District-FPT	Sudowe, Ralf		276,613	8/31/2013
Aerospace and Defense		UNLV		Dynamic Space Charge Effects - Task 33	Provide faculty, a well-trained undergraduate student to conduct the following in support of the NSTec-UNLV Collaboration: Center of Excellence Pilot Projects: 1) Physical modeling of dynamic space charge effects, especially in ultrafast femtosecond region. 2) The modeling will be applicable to practical boundary conditions. UNLV shall help to locate lab space and experimental setup, to facilitate the experimental aspects of the project.	National Security Technologies	Sun, Ke-Xun		49,608	9/30/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNLV		Investigation of the Shock Mitigating Properties of Bolted Joint Connections	Hyundai Rotem has successfully developed ground weapon systems such as K2 main battle tanks (MBT) and continues to make its innovative efforts to proactively respond to the future combat environment such as unmanned weapons systems. There are some limits on welded structure of combat vehicles in combination with monocoque structure and added armors. In the future battlefield, small scaled and weight reduced structure is expected to use in unmanned weapon system. Recently, there have been wide efforts to adapt merits of commercial vehicles with frame structure in car and airplane industry to combat vehicles. As an integrated defense company, Hyundai Rotem intends to develop the technology of open architecture that consists of space frame structure and multi-functional plates. It also covers the development of a technology to significantly reduce the damage due to impact shock or mine blast. This annex is about the research on designing bolted joint connections for shock mitigation as part of a program sponsored by Korean government. Bolted joint connection in space frame will be designed to contribute to protecting combatants and electronic components inside combat vehicles by mitigating the incident shock wave and vibration.	Hyundai Rotem	Trabia, Mohamed		84,110	5/31/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNLV		Structural Blast Loading	UNLV will perform computational analysis to support the fabrication of a prototype explosive containment vessel. Analysis will primarily consist of simulating the dynamic structural response of composite vessels to blast loading. Some laboratory experiments may be needed to determine composite material properties for the vessel.	Blast Containment Inc-FPT	Trabia, Mohamed		115,299	6/30/2012
Aerospace and Defense		UNLV	Nevada System of Higher Education	NASA EPSCoR RID - Travel Award	The Nevada EPSCoR program proposes to distribute nine travel awards to faculty researchers and their students at the University of Nevada, Reno and Las Vegas for the purpose of initiating and strengthening collaboration with NASA center personnel. The awards will provide seeding resources to potential future research in the areas of Earth-climate change science, planetary geology, astrophysics and systems engineering for exploration and human space flight for at least eleven faculty and five to ten students at ARC, GRC, JSC, GSFC, DRC, MSFC and LARC.	NASA EPSCoR	van Breukelen, Frank		2,200	3/31/2013

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Aerospace and Defense		UNLV	NV System of Higher Education	NASA EPSCoR-Research Infrastructure Development-Undergraduate Research and Technology Development Researcher Scholarship	Space exploration by humans poses many physiological problems. The ability to monitor basic physiological functions is vital to understanding these problems. Currently, there are no devices that would allow one to measure blood flow with wireless telemetry. Current technologies require too much power for use in telemetry. I will exploit a passive sensor system that requires no external power to measure blood flow. The only power required would be for data communication. This sensor will allow for more accurate understanding of how space flight may affect basic biological functions.	NV System of Higher Education	van Breukelen, Frank		1,000	8/31/2012
Aerospace and Defense		UNLV		A Broad-Band Study of Gamma-Ray Bursts and Related Phenomena	Perform data analysis in the following four directions. 1. Recent Fermi observation of GRB 080916C suggests that at least for this burst, the GRB outflow is Poynting-flux-dominated. If this is common among GRBs, it has profound implications in understanding the fundamental mechanism of GRBs. We plan to test this hypothesis by analyzing prompt gamma-ray/optical data, prompt GeV data, as well as prompt gamma-ray variability information. 2. Recent GRB multi-wavelength observations suggest that it is not straightforward to define the physical category of GRB based on the duration information. We plan to further develop methods of physical classification schemes by invoking more quantitative multiple observational criteria, and use Monte Carlo simulations to address the profound question of whether all short GRBs are originated from compact star mergers. 3. A recent serendipitous discovery of XRO 080109 suggests that such X-ray transients are very common, may be associated with every Type Ib/c supernova. We plan to systematically search for XRO 080109-like events from Swift/XRT, Chandra, and XMM-Newton archives, and use the results to constrain the event rate of these transients and address their physical origin. 4. A few high-redshift GRBs have been identified, which show interesting observational properties. We plan to systematically study high-z GRBs and their possible redshift evolution effect, and use GRBs to study high-z universe and cosmology.	National Aeronautics and Space Administration	Zhang, Bing		327,666	3/31/2013
Aerospace and Defense		UNLV		A New Model of GRB Prompt Emission	Motivated by the Fermi observation of GRB 080916C, recently we developed a new model of GRB prompt emission in the Poynting-flux-dominated regime, namely the Internal Collision-Induced Magnetic Reconnection and Turbulence (ICMART) model. In this proposal, we propose to further develop this model in the following 3 directions: (1) an analytical study of particle acceleration and radiation in an ICMART event; (2) a numerical MHD simulation of collisions of two high-sigma shells to observe development of turbulence; (3) a multiple-shell numerical model for collisions of high-sigma shells. The results will be applied to directly model GRB 080916C and Fermi GRBs.	National Aeronautics and Space Administration	Zhang, Bing		80,000	10/31/2012
Aerospace and Defense		UNLV		Contribution to Extragalactic Diffuse Gamma-Ray Background by Pair Echoes from Off-Beam TeV Blazars	We propose to develop a new model of extragalactic diffuse background emission, which invokes the upscattered CMB photons (pair echo) by pairs produced from TeV blazars that do not beam towards Earth. Through Monte Carlo simulations of luminosity functions, redshift distribution and spectral properties of TeV blazars, we will integrate the contributions of the entire blazar population and confront the model prediction with the data.	National Aeronautics and Space Administration	Zhang, Bing		55,000	8/31/2012
Aerospace and Defense		UNR		CO-EVOLVING TACTICS	Develop a prototype for a revolutionary genetic algorithm based artificial intelligence learning system that learns from subject matter for decision making simulations.	Department of Defense, Department of the Navy	LOUIS,SUSHIL, HOUMANFAR, RAMONA		595,957	3/31/2012
Aerospace and Defense	Clean Air	UNR		TUNGSTEN IONS FOR MAGNETIC FUS	Study of plasma radiation with medium-Z impurities for a broad range of ionization stages.	Department of Energy	SAFRONOVA,ALLA S.		449,996	12/14/2013
Aerospace and Defense	Clean Air	UNR		MODELING OF EXTREME-INTENSITY	Develop a full-scale multi-dimensional photo-ionized plasma (PIC) model that includes the atomic physics, such as collision, ionization, and radiation.	Department of Energy	SENTOKU,YASUHIKO		89,130	9/29/2012
Aerospace and Defense	Clean Air	UNR		EXTREME STATES OF MATTER	Multi-institutional study the physics underlying the creation of high energy density (HED) fusion plasmas by academic scientists from around the country into a collaboration to foster rapid progress in this novel field.	Department of Energy/University of Rochester	SENTOKU,YASUHIKO		153,371	1/31/2013
Aerospace and Defense	Clean Air	UNR		PRISM CODES/HEDP EXPERIMENTS	Application of prism simulation codes to modeling and analysis of high energy density plasma experiments.	Prism Computational Sciences	MANCINI,ROBERTO C.		21,714	7/16/2012
Aerospace and Defense	Mining, Materials, and Manufacturing	UNR	UNIV OF DELAWARE	TRANSPARENT ARMOR POLYMER COMP	Develop an advanced transparent armor polymer material by integrating thermoplastic polymer particles as filler materials into both PC and PMMA matrixes, and characterize associated mechanisms of impact failure and energy absorbing capability.	Department of Defense, Department of the Army	SUHR,JONGHWAN		224,002	3/28/2012
Aerospace and Defense		UNR		MER - MINI - TES	Support the participation of a UNR researcher in the Mars Exploration Rover (MER) activities related to mini-TES data acquisition, calibration, interpretation and relation to other data acquired by the rovers.	National Aeronautics & Space Administration, National Jet Propulsion Laboratory	CALVIN,WENDY M.		739,864	9/30/2012
Aerospace and Defense		UNR		MARCI/CTX CO INVESTIGATOR	Analysis and interpretation of data gathered from the Mars Exploration Rover (MER) for surface and atmospheric composition and relationships between local geology, frost deposition and removal, and surface expression of geochemical weathering interactions.	National Aeronautics & Space Administration, Jet Propulsion Laboratory/Malin Space Science Systems	CALVIN,WENDY M.		228,682	9/30/2012
Aerospace and Defense		UNR		COMPACTION BANDS	Investigate the deformation of stratified sequences resulting in planetary land fault regions.	National Aeronautics & Space Administration	SCHULTZ,RICHARD A.		279,000	6/30/2012
Aerospace and Defense		UNR		EXTENSIONAL FAULT GROWTH	Scientific investigations of planetary surfaces and interiors, satellites (including the Moon), satellite and ring systems, and smaller Solar System bodies such as asteroids and comet that will improve the understanding of the extent and influence of planetary geological and geophysical processes.	National Aeronautics & Space Administration	SCHULTZ,RICHARD A.		90,000	6/30/2013
Aerospace and Defense		UNR		CRISM CO-I	Scientific input to the CRISM Science Operations Center at APL on the Mars Reconnaissance Orbiter Spacecraft, and provide support for processing data into standardized products to the Planetary Data System.	National Aeronautics & Space Administration, Jet Propulsion Laboratory/Johns Hopkins University	CALVIN,WENDY M.		7,500	9/30/2012
Aerospace and Defense		UNR		INSAR & GPS OBSERVATIONS	Integrate the large and complementary GPS and InSAR databases for describing surface deformation in plate boundary zones exhibiting active crustal deformation.	National Aeronautics & Space Administration	HAMMOND,WILLIAM C.		405,647	7/31/2012
Aerospace and Defense		UNR		UPLIFT & COLLAPSE/GREAT BASIN	Accurately characterize earth plate boundary uplift and collapse, and provide crucial first-order evidence on underlying processes.	National Science Foundation	BLEWITT,GEOFFREY		474,930	3/31/2012
Aerospace and Defense		UNR		ENHANCE GLOBAL GPS ACCURACY	Increase by >500% the number of GPS stations to accurately determine global geodetic parameters to further strengthen the network geometry.	National Aeronautics & Space Administration	BLEWITT,GEOFFREY		181,651	6/30/2012
Aerospace and Defense		UNR		IMPROVING STRAIN RATE MODELS	Enhance the utilization of GPS and InSAR data to capture fundamental deformation processes at high spatial and temporal resolution.	National Science Foundation	KREEMER,CORNELIS W.		288,230	8/31/2012
Aerospace and Defense		UNR		SPACE GEODETIC DATA PRODUCTS	Develop new quality control methods for current and legacy GNSS data.	National Aeronautics & Space Administration/UNAVCO	KREEMER,CORNELIS W.		154,728	12/31/2012
Aerospace and Defense		UNR		MOGUL EARTHQUAKE INVESTIGATION	Characterize rare shallow earthquake sequences to develop algorithms related to source parameters and regional propagation.	Department of Defense, Department of the Air Force	TIBULEAC,ILEANA M.		219,498	2/28/2013
Aerospace and Defense		UNR		ENGINEERING ANALYSIS FOR NNSS	Divert seismic data communications at Yucca Mountain to a reliable communication source.	Department of Energy/National Security Technologies	SMITH,KENNETH D.		24,270	3/31/2012
Aerospace and Defense		UNR		NNSS SEISMIC NETWORK	Real-time seismic monitoring in southern Nevada for constraining earthquake locations, magnitudes and ground motions, and improving overall earthquake response capabilities and earthquake awareness.	Department of Energy/National Security Technologies	SMITH,KENNETH D.		180,780	9/30/2012
Aerospace and Defense		UNR		ROCK VALLEY DEPLOYMENT	Data integration and data dissemination of the time series data derived from a seismic network by the Nevada Seismological Laboratory (NSL) at UNR.	Department of Energy/National Security Technologies	SMITH,KENNETH D.		141,333	9/30/2012

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Aerospace and Defense		UNR		NST TELEMETRY	Seismic monitoring activities at the Nevada Nuclear Security Site (NNSS).	Department of Energy/National Security Technologies	SMITH,KENNETH D.		69,046	9/30/2012
Aerospace and Defense		UNR		SPE DATA INTEGRATION	Development of more efficient mechanisms for SPE data access, download, and dissemination.	Department of Energy/National Security Technologies	SMITH,KENNETH D.		187,639	9/30/2012
Aerospace and Defense		UNR	Raytheon Ktech	HED-2007	Development of high-energy short-pulse laser advanced capabilities and research on strongly magnetized high energy density matter.	Department of Energy	COVINGTON,AARON M.		27,700,234	12/31/2012
Aerospace and Defense		UNR		THEORETICAL X-RAY/EUV SPECT...	Theoretical studies of radiation from X- and Z- pinch plasmas in a wide spectral range, its anisotropy, and electron beam generation as a function of X-pinch or wire-array parameters.	Department of Energy	SAFRONOVA,ALLA S.		2,456,827	12/31/2012
Aerospace and Defense		UNR		X-RAY SPECTROSCOPY AT Z	Perform Stark-broadened line shape calculations and spectroscopic data analysis relevant for implosion and opacity experiments at the Z facility of Sandia National Laboratories.	Department of Energy/Sandia National Laboratories	MANCINI,ROBERTO C.		95,962	7/31/2012
Aerospace and Defense		UNR	SWARTHMORE COLLEGE	PHOTOIONIZED PLASMAS AT Z	Develop theoretical models and codes describing the atomic kinetics and radioactive properties of high energy density plasmas.	Department of Energy	MANCINI,ROBERTO C.		690,000	8/19/2012
Aerospace and Defense		UNR		REMOTE SENSING OF AEROSOLS	Expand existing research capacity in aerosol optical properties for satellite remote sensing, and connect the existing NASA network of ground-based sun and sky photometers with in-situ measurements of aerosol optical properties.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	ARNOTT,W. PATRICK		185,239	8/12/2013
Aerospace and Defense		UNR		MAGNETIC FUSION DIAGNOSTICS	Comprehensive theoretical effort in generation of high precision RMBPT atomic data and their comparison with other codes for identification and modeling of x-ray and EUV spectra for studying radiation from plasmas with medium-Z impurities.	Department of Energy	SAFRONOVA,ALLA S.		300,000	12/14/2013
Aerospace and Defense		UNR		IMPLOSION CHARACTERISTICS	Experimental studies of implosion characteristics and radiation properties of planar and cylindrical wire arrays and X-pinch.	Department of Energy	KANTSYREV,VICTOR L.	LEONID I ROUDAKOV; ALEXANDRE CHUVATIN	1,894,545	12/31/2012
Aerospace and Defense		UNR		HYDRODYNAMIC STABILITY	3D studies of hydro stability, mixing and shock dynamics in OMEGA direct-drive implosion cores.	Department of Energy	MANCINI,ROBERTO C.		272,349	1/31/2013
Aerospace and Defense		UNR		DIELECTRONIC NV SPACE GRANT	Generation of dielectronic recombination data.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	DEREVIANKO,ANDREI		20,000	5/4/2012
Aerospace and Defense		UNR		GENERATION OF X-RAY RADIATION	Development of a gas puffjet assembly for experimental and theoretical studies on gas-puffjet laser heating and x-ray generation.	Department of Defense/Hy-Tech Research Corporation	KANTSYREV,VICTOR L.		44,000	2/15/2014
Aerospace and Defense		UNR		LASER DIAGNOSTICS	Development of laser-based diagnostics to measure the plasma density and magnetic field with two-dimensional space resolution and gated in time.	Department of Energy/Lawrence Livermore Laboratory	PRESURA,RADU		54,996	5/31/2012
Aerospace and Defense		UNR		X-RAY SPECTROSCOPY NIF IMPL Y2	Perform Stark-broadened line shape calculations of tracer elements that can be added to the core of NIF implosion capsules for x-ray spectroscopy diagnostics.	Department of Energy/Lawrence Livermore Laboratory	MANCINI,ROBERTO C.		70,000	6/30/2012
Aerospace and Defense		UNR		EXPLORATION FOR FAST IGNITION	Theoretical and computational work in support fast ignition experimental studies.	Department of Energy/General Atomics	SENTOKU,YASUHIKO		25,000	5/31/2012
Aerospace and Defense		UNR		CMR FLUID SPRING DAMPERS	Design, fabricate, and test a full-scale prototype compressible magneto-rheological (CMR) fluid spring-damper device for providing controllable vibration damping and liquid spring characteristics.	Department of Defense, Department of the Army/Advance Materials & Devices Incorporated	GORDANINEJAD,FARAMARZ		322,000	7/31/2012
Aerospace and Defense		UNR		FIELD-CONTROLLABLE MRE MOUNT	Design, develop, and test MRE mounts to support a variety of payloads within the same size and weight envelope while mitigating shock loads.	Department of Defense, Department of the Navy/Advanced Materials & Devices Incorporated	GORDANINEJAD,FARAMARZ		409,346	12/31/2012
Aerospace and Defense		UNR		TWISTABLE ARTIFICIAL MUSCLE	The unique properties of a new enabling "Artificial Muscle [AM]" (1-3, 6-10) will be incorporated into development of a compact and energy-efficient technology for enmeshed maneuvering of small bio-inspired unmanned surface/underwater vehicles.	Department of Defense, Department of the Navy	KIM,KWANG J.		467,454	11/30/2012
Aerospace and Defense		UNR	UNIV OF DELAWARE	NUE: NANOTECH FOR ME COURSES	Enhanced educational experiences to prepare mechanical engineers to meet emerging challenges of nano-technology such as aerospace structures, wind-energy turbine blades, and snow skis, etc.	National Science Foundation	LEANG,KAM K.		199,976	8/31/2012
Aerospace and Defense		UNR		CONTROLLABLE CMRD	Design, fabricate, and test full-scale prototypes of compressible magneto-rheological (CMR) fluid spring-damper device for potential use in unmanned, tracked, and wheeled vehicles.	Department of Defense, Department of the Army/Advance Materials & Devices Incorporated	GORDANINEJAD,FARAMARZ		411,016	12/31/2012
Aerospace and Defense		UNR		AUTONOMOUS SYSTEMS/ROBOTIC APP	Design an effective and robust system for reliable detection of intended activities for autonomous systems in both naval and service robotics applications.	Department of Defense, Department of the Navy	NICOLESCU,MONICA N.		543,280	7/31/2012
Aerospace and Defense		UNR		ARRA: CYBER-PHYSICAL SYSTEMS	Study simulation-based planning and coordination algorithms with real-time and asynchronous communication constraints in the context of cyber-physical systems.	National Science Foundation	BEKRIS,KONSTANTINOS		599,970	8/31/2013
Aerospace and Defense		UNR		AIR SUP/INTELLIGENT AGGRESSORS	Investigate, develop, and prototype artificially intelligent controllers for naval subsurface and air assists to provide better training for tactical decision making.	Department of Defense, Department of the Navy	LOUIS,SUSHIL		499,963	10/30/2012
Aerospace and Defense		UNR		INTELLIGENT ROBOTIC DECISIONS	Advance NASA's computer vision, robotics, and visualization technologies, in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames for improving planetary exploration and discovery.	Department of Defense, Department of the Navy	HARRIS,FREDERICK C.		555,953	9/30/2012
Aerospace and Defense		UNR		NASA EPSCOR: COMPUTER VISION	Contribute to: 1. NASA's development a balanced overall program of science, exploration, and aeronautics consistent with the redirection of the human spaceflight program to focus on exploration), and 2. technology development priorities of the Science Mission Directorate (e.g., Robotic Lunar Exploration Program).	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	BEBIS,GEORGE		354,212	8/31/2014
Aerospace and Defense		UNR		SPACE GRANT CONSORT-SCHOLAR 10	Scholarships and Fellowships from NASA for NV Space Grant students at the University of Nevada, Reno.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	COLLOPY,MICHAEL W.		73,333	5/5/2014
Aerospace and Defense		UNR		NASA EPSCOR: RID-SCHOLARSHIPS	Nevada NASA EPSCoR Scholarships for the Undergraduate Research and Technology Development Researcher Scholarship Award Program.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	COLLOPY,MICHAEL W.		24,000	5/31/2012
Aerospace and Defense		UNR		GLOBAL GEODETIC STRAIN RATE	Develop a global database of GPS velocities to model the global strain rate field for the purpose of seismic hazard assessment.	Global Earthquake Model Foundation	KREEMER,CORNELIS W.		144,900	8/31/2012
Aerospace and Defense		UNR		EMITTER MODELING RSRCH INITIAT	Derive analytical models for near fields on microwave emitters.	General Electric Energy Corporation	CHATTERJEE,INDIRA		46,950	5/31/2012

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

AEROSPACE & DEFENSE SECTOR

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Aerospace and Defense		UNR		ADVANCED X-RAY TOMOGRAPHY	Apply advanced x-ray spectroscopy and polychromatic tomography methods to study the spatial structure of ICF implosion cores.	Department of Energy/Los Alamos National Laboratory	MANCINI, ROBERTO C.		175,000	9/30/2012
Aerospace and Defense		UNR		SPEC PROJ EPSCOR: COMPUTER VIS	Advance NASA's computer vision, robotics, and visualization technologies, in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames for improving planetary exploration and discovery.	Nevada System of Higher Education, Chancellor's Office	BEBIS, GEORGE		70,813	5/13/2013
Aerospace and Defense		UNR		SPEC PROJ EPSCOR: SCHOLARSHIPS	Support mentoring and experiential learning of graduate students to collaborative research projects with NASA EPSCOR.	Nevada System of Higher Education, Chancellor's Office	BEKRIS, KONSTANTINOS		2,000	5/31/2012
TOTAL									47,393,494	

MINING, MATERIALS & MANUFACTURING SECTOR

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Mining, Materials and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Cornelius, Andrew		1,660,206	12/31/2012
Mining, Materials and Manufacturing		UNLV		CHT 12 Participation in an International Symposium	The 5th International Symposium on Advances in Computational Heat Transfer (CHT 12) will be held July 1-6, 2012, in Bath, UK. The International Centre for Heat and Mass Transfer (ICHMT), the CFD Research Laboratory of the University of New South Wales (UNSW), Australia, the ASME Heat Transfer Division (HTD), and the University of Bath, UK will sponsor the symposium. This is an international conference on state-of-the-art and promising computational techniques applied to heat transfer, and will assemble scientists and engineers working in the fields related to, and requiring, computational methods for modeling all modes of heat transfer, including coupling with fluid flow and related multiphysics interactions. This proposal is to request travel support of \$15,750 to fund researchers, principally junior and underrepresented minority faculty and graduate students, from the US.	National Science Foundation	Pepper, Darrell		15,750	10/31/2012
Mining, Materials and Manufacturing		UNLV		Collaborative Research: Integrated Investigations of Isotopic Fractionation in Magmatic Systems	Simon will perform experiments and Lundstrom will analyze the run products, to determine isotope fractionation factors for Fe, Mg and Si by using a multi-capsule technique in two separate melt + crystals + vapor assemblage. Our proposed experimental plan allows us to constrain isotope fractionation among melt, crystals and assemblage.	National Science Foundation	Simon, Adam		132,446	7/31/2013
Mining, Materials and Manufacturing		UNLV		Mineral Assessment of Northern Nye County, NV	Expand our understanding of mineral resources in northern Nye County, Nevada. This information will be used to aid in land use planning for Nye County.	U.S. Geological Survey	Simon, Adam		69,032	9/30/2012
Mining, Materials and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Simon, Adam		664,793	12/31/2012
Mining, Materials and Manufacturing		UNLV		Solvent/Nitric Acid System Investigation - Red Oil	UNLV/HRC will investigate the following research interests: 1. Identification of the degradation products of TBP during a runaway reaction in the presence of uranium. The techniques used will be ESI-Mass Spectrometry, GC MS. 2. Speciation of Uranium/TBP/HNO3 during a runaway reaction. The different species of uranium formed with TBP as well as the TBP degradation products will be assessed by UV Vis, Laser spectroscopy. Complexation constants of U and the TBP degraded species will be evaluated. 3. Kinetic data and thermodynamic data for the degraded TBP species which are butanol, butyl nitrate, DBP, MBP. The role of uranium in affecting the production rates of degraded organics will be evaluated. 4. Studies of the influence of other metal nitrates on a red oil event. 5. Investigation of the role of the diluent in a red oil event. 6. Phase inversion investigation caused by the presence of metal ions in the aqueous phase that can solvate with TBP.	AREVA NC	Sudowe, Ralf		270,805	5/31/2012
Mining, Materials and Manufacturing		UNLV		Mathematical Modeling of Biomolecule Translocation through Nanopores	The goal of this proposal seeks to develop a continuum-based mathematical model to gain a fundamental knowledge necessary to design a label-free, low-cost, high-speed, and high-throughput DNA sequencing method using nanopores. Nanopores are emerging as a promising candidate for the development of a third generation sequencing device which will meet the goal of a \$1,000 human genome sequencing paradigm set by the National Institute of Health. Many experimental data on DNA molecule translocation through a nanopore has been collected for the last decade, but a simple continuum-based model that describes the translocation process in statistical terms and can be directly compared with an ensemble average observed by experiments is still lacking. Limited existing analytical continuum models still cannot fully explain experimental observations. Simple physical arguments suggest that concentration polarization and the shape of the nanopore may be able to bridge the discrepancy of the tether force or translocation velocity between the experimental results and the theoretical predictions from existing simple continuum models. Thus the specific aims are to (1) Explore the role of concentration polarization using our proposed continuum-based mathematical model; (2) Examine the feasibility of using salt concentration imposed externally across the nanopore to regulate DNA translocation	National Institutes of Health	Zhao, Hui		69,349	1/31/2013
Mining, Materials and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with some modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Zhao, Yusheng		11,564,219	12/31/2012
Mining, Materials, and Manufacturing		UNLV		Non-Flammable Crew Clothing Utilizing Phosphorous-Based Fire Retardant Polymers	The objective of this Phase II project is to continue the engineering development of heat and flame-resistant crew clothing (FRECCLO) to satisfy NASA needs.	InnoSense LLC	Bhowmik, Pradip		50,750	6/2/2013
Mining, Materials, and Manufacturing		UNLV		Mineral Physics Educational Modules for Advanced Undergraduates and Graduate Students	Assemble four web-based educational modules for inclusion in a course entitled Introduction to Mineral Physics for entry level graduate students and advanced undergraduate students.	University of Illinois	Burnley, Pamela		86,346	5/31/2013
Mining, Materials, and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Burnley, Pamela		1,136,302	12/31/2012
Mining, Materials, and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Chen, Changfeng		1,476,609	12/31/2012
Mining, Materials, and Manufacturing		UNLV		TE-HVAC Program: Computational Materials Research	UNLV's effort on this new project will be focused on theoretical first-principle calculations of nano-composites.	General Motors Corporation	Chen, Changfeng		565,370	10/31/2012
Mining, Materials, and Manufacturing		UNLV		Mineralization of Northern Nye County	Expand our understanding of mineral resources in northern Nye County, Nevada. This information will be used to aid in land use planning for Nye County.	U.S. Geological Survey	Cline, Jean		64,272	9/30/2012
Mining, Materials, and Manufacturing		UNLV		High Pressure X-Ray Absorption Studies on Correlated-Electron Systems	This project intends to combine the areas of expertise to perform high-pressure x-ray absorption measurements. In addition, numerous other physical property measurements will be performed as required for a thorough understanding of the effect of pressure on correlated-electron systems.	U.S. Department of Energy	Cornelius, Andrew		563,811	6/30/2013
Mining, Materials, and Manufacturing		UNLV		Gas Puff Modeling and Experiments for Dense Plasma Focus Accelerations - Task 35	Conduct numerical studies and experiments for the purpose of analyzing and improving the performance of an injected gas puff on a DPF system during a pinch.	National Security Technologies	Culbreth, William		29,998	6/30/2012
Mining, Materials, and Manufacturing		UNLV		09-285 Utilization of Methacrylates and Polymer Matrices for the Synthesis of Ion Specific Resins	This proposal addresses the need for new and innovative methods for the selective separation of actinides through novel ion imprinted resins.	Battelle Energy Alliance, LLC	Czerwinski, Kenneth		650,300	9/30/2012

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Mining, Materials, and Manufacturing		UNLV		09-350 Quantification of UV-Visible and Laser Spectroscopic Techniques for Materials Accountability and Process Control	In this project UV-Visible and TRLFS will be evaluated for use in proposed GNEP solvent extraction based separations. Studies are also ongoing using TRLFS to evaluate Cm speciation and concentration in the TALSPEAK process.	Battelle Energy Alliance, LLC	Czerwinski, Kenneth		494,935	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Natural Uranium Oxide Samples	Subcontractor shall furnish and deliver natural uranium oxides samples to LLNL. Samples shall be prepared from triuranium dioxide, uranium dioxide and uranyl fluoride starting materials using at least three different isotopic starting compositions at temperatures of 100, 200, 300, 400 and 700 degree Celsius. Final specifications shall be agreed upon between LLNL and subcontractor. Subcontractor shall characterize reactants and products using powder x-ray diffraction and prepare samples of each suitably for shipment to LLNL.	Lawrence Livermore National Laboratories	Czerwinski, Kenneth		10,000	7/1/2012
Mining, Materials, and Manufacturing		UNLV		Production of Surrogate Epsilon Metal Alloys and UO2 Ceramic Materials	The work scope involves the production and preliminary characterization of four alloys representing epsilon metals formed in uranium dioxide fuels and one uranium dioxide ceramic material for use in experiments being conducted at ANL as part of the DOE Fuel Cycle Research and Development (FCRD) program. These materials will be formed into electrodes and used in experiments to study the impact of the catalytic activity of the epsilon metal on the dissolution behavior of uranium dioxide.	Argonne Nat'l Lab	Czerwinski, Kenneth		25,001	2/19/2013
Mining, Materials, and Manufacturing		UNLV		Synthesis and Characterization of Technetium Halide and Oxide Compounds	This Scope of Work involves preparation and characterization of technetium compounds containing halides and oxide. These materials may be potential hosts for the immobilization and disposal of the isotope technetium-99. Technetium-99 is a long-lived isotope and major fission product in used nuclear fuel and a long-term threat to the biosphere. Some of the low-valent technetium chlorides and oxides have extremely low water solubility and may provide a material form of disposal of technetium in a geological repository. The focus of the synthetic work will be on systems with a consistent variation in the sample composition that provides a focal point for evaluations.	Los Alamos Nat'l Lab	Czerwinski, Kenneth		40,000	7/31/2012
Mining, Materials, and Manufacturing		UNLV		MRI: Acquisition of an Ultra-Low Background Gamma Spectroscopy Platform for Measuring Ionizing Radiation - ARRA	Acquisition of a research-grade gamma spectroscopy instrument.	National Science Foundation	Das, Biswajit		397,316	8/31/2012
Mining, Materials, and Manufacturing		UNLV		REU Site in Materials and Astrophysics	Students are recruited nationally, with preference for students from the western U.S., students from underrepresented groups, and students from institutions with limited research facilities. None of the students supported by this grant will be UNLV students. The program involved laboratory research, a seminar series, and a student poster session at the end of the summer. Students live in the dorms and eat their meals together, thus fostering group interaction. Students will have an opportunity to visit major national facilities at the Nevada Test Site and at either the Advanced Light Source (ALS) at Lawrence Berkeley National Laboratory or the Advanced Proton Source (APS) at Argonne National Laboratory. Roughly half of the students will participate in research at the ALS or APS, but all students will visit these facilities, and all students will perform research using the facilities on the UNLV campus. Thus students will get a research experience in both Small Science and at least an introduction to Big Science. Project evaluation will be handled by an external evaluator, the Nevada Center for Evaluation and Assessment at UNLV.	National Science Foundation	Farley, John		38,250	3/31/2013
Mining, Materials, and Manufacturing		UNLV		REU Site in Materials and Astrophysics - Participant Support	Students are recruited nationally, with preference for students from the western U.S., students from underrepresented groups, and students from institutions with limited research facilities. None of the students supported by this grant will be UNLV students. The program involved laboratory research, a seminar series, and a student poster session at the end of the summer. Students live in the dorms and eat their meals together, thus fostering group interaction. Students will have an opportunity to visit major national facilities at the Nevada Test Site and at either the Advanced Light Source (ALS) at Lawrence Berkeley National Laboratory or the Advanced Proton Source (APS) at Argonne National Laboratory. Roughly half of the students will participate in research at the ALS or APS, but all students will visit these facilities, and all students will perform research using the facilities on the UNLV campus. Thus students will get a research experience in both Small Science and at least an introduction to Big Science. Project evaluation will be handled by an external evaluator, the Nevada Center for Evaluation and Assessment at UNLV.	National Science Foundation	Farley, John		246,750	3/31/2013
Mining, Materials, and Manufacturing		UNLV		Characterization and Modeling of Materials for Kr-Xe Separations	This proposal will carry out research into the adsorption of Kr and Xe on nanoporous substrates with the aim of identifying materials that can be used to practically separate the two gases. In addition, we will examine the feasibility of sequestering of Kr in a nanoporous host. If successful, this may allow for long-term storage within a concrete-like medium with a pedigree as a waste form.	Battelle Energy Alliance, LLC	Forster, Paul		989,800	7/26/2013
Mining, Materials, and Manufacturing		UNLV		History and Origin of Mineral Deposits in Northern Nye County, NV	Expand our understanding of mineral resources in northern Nye County, Nevada. This information will be used to aid in land use planning for Nye County.	U.S. Geological Survey	Hanson, Andrew		210,585	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Thermal Impacts of Salt Research Consortium (Andarko Petroleum Corporation)	The objectives of this consortium are to: 1) document the variability in thermal histories adjacent to different types of diapirs, welds, walls and mini-basins and determine the controls on that variation, 2) document the impact of depressed thermal maturities on preservation of reservoir quality, 3) document the impact on thermal maturities associated with different structural levels of salt structures, 4) document the thermal variability associated with different types of allochthonous salt bodies and 5) characterize the nature of fluid flow associated with salt features.	Various	Hanson, Andrew		32,000	9/30/2013
Mining, Materials, and Manufacturing		UNLV		Advanced Thermophysical Properties Measurements	The initial task is to develop techniques and define operational limitations using non-radioactive materials with known properties. UNLV will be represented by Dr. Hartmann who will act as UNLV PI to direct, conduct and supervise the progress on the following research tasks: Task 1: Obtain calibrated stage. This activity will procure the calibrated stage necessary to perform these measurements. Task 2: Apply material with known thermophysical properties to the stage and compare measured properties with published data. There are two objectives to this task: (1) develop methods for applying sample material to the stage, and (2) determine the minimum amount of material that can be used to obtain accurate and reliable data. Task 3: Measure thermophysical properties of one or more actinide elements and/or actinide-containing binary systems provided by the INL.	Idaho National Laboratory	Hartmann, Thomas		51,000	6/30/2012
Mining, Materials, and Manufacturing		UNLV		Transport Characteristics and Solubilities of Lanthanides in Stainless Steels Under Molten Alkali Conditions	The science-based objective is to investigate lanthanide and metal dopant behaviors in molten alkali metals. The results-oriented objective is to characterize select dopants for their stabilizing action for eventual irradiation testing in ATR.	Idaho National Laboratory	Hartmann, Thomas		230,000	12/31/2012
Mining, Materials, and Manufacturing		UNLV		Chemistry of SOFC Cathode Surfaces: Fundamental Investigation and Tailoring of Electronic Behavior	To study the electronic and chemical properties of SOFC cathode surfaces and interfaces, we will utilize a world-wide unique tool chest of different experimental methods and apply the SOFC cathode samples produced within this project.	Massachusetts Institute of Technology	Heske, Clemens		241,175	3/30/2013

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Mining, Materials, and Manufacturing		UNLV		Neutron Tomography - Refinement of Analytic and Stochastic Multiple Detector Models - Task 36	Refinement of analytic and stochastic multiple detector models. Stochastic systems: continued refinement of the various stochastic/Monte-Carlos reconstruction approaches. Analytic methods: continued refinement and investigation into the various fixed reconstructed time and energy spectra. Methods to study the effect of detector placement on the quality of the reconstructed time and energy spectra. Investigation into the effects of uncertainties in detector and measurement system responses on the quality of reconstructions for the various methods.	National Security Technologies	Kachroo, Pushkin		59,492	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Theoretical Surface Science Approaches to Corrosion of Tc-Fe-Mo Alloy Wasteforms	Techneium-alloy wasteforms and their oxidation/corrosion properties will be investigated from first-principles. Specifically, the spin-polarized density functional theory (DFT) implemented in the Vienna Ab initio Simulation Package (VASP) will be utilized for the modeling work. The proposed research effort will be carried out over a three-year period and will focus on the study of Tc-Fe and Tc-Mo alloys and the comparative stabilities of Tc and Re in the iron oxide phases.	Los Alamos Nat'l Lab	Kim, Eunja		100,000	9/30/2012
Mining, Materials, and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressures and temperatures experienced by weapons materials.	U.S. Department of Energy	Kumar, Rahvi		555,737	12/31/2012
Mining, Materials, and Manufacturing		UNLV		CAREER: Smart Molecular Design for One-Dimensional n-Type Nanostructures: Controlling Electronic Properties and Morphologies	The main objectives of this research are to develop a fundamental understanding of the structure-property relationship in terms of the tunability of the electron-deficiency, and to enhance the controllability of the 1D nanostructure morphologies derived from the new n-type materials.	National Science Foundation	Lee, Dong-Chan		393,700	6/30/2014
Mining, Materials, and Manufacturing		UNLV		CAREER: Smart Molecular Design for One-Dimensional n-Type Nanostructures: Controlling Electronic Properties and Morphologies - Participant Support	The main objectives of this research are to develop a fundamental understanding of the structure-property relationship in terms of the tunability of the electron-deficiency, and to enhance the controllability of the 1D nanostructure morphologies derived from the new n-type materials.	National Science Foundation	Lee, Dong-Chan		18,300	6/30/2014
Mining, Materials, and Manufacturing		UNLV		Geometrical and Dynamical Effects in X-Ray Interactions with Molecules	The proposal has two main thrusts: (1) probing limits of the dipole approximation, the simplest reasonable treatment of photon interactions, in photoionization, and (2) resonant inelastic x-ray scattering (RIXS), or x-ray emission, from molecular targets.	National Science Foundation	Lindle, Dennis		435,000	6/30/2013
Mining, Materials, and Manufacturing		UNLV		Geometrical and Dynamical Effects in X-Ray Interactions with Molecules - REU Supplement	This supplemental request is for REU support for Ms. Anna Childs, a Mathematics major at UNLV who is assisting my research group in analyzing data collected under the auspices of the grant. She is a U.S. citizen. Her primary effort will be in developing a new fitting procedure for the time-of-flight photoemission spectra we use in studying nondipole photoemission effects. Her expertise in math will be very helpful in this regard.	National Science Foundation	Lindle, Dennis		5,000	6/30/2013
Mining, Materials, and Manufacturing		UNLV		Operation of ALS Beamline 9.3.1	Designate Wayne Stolte as the responsible beamline scientist during the period of September 1, 2011 - August 31, 2012. As a beamline scientist for beamline 9.3.1 at the Advanced Light Source, Wayne Stolte will be responsible for the following duties: safety, operation and scheduling, improvements to performance and operation, and scientific outreach.	Lawrence Berkeley National Laboratory	Lindle, Dennis		283,705	8/31/2012
Mining, Materials, and Manufacturing		UNLV		NCNS Down-Hole Accelerator Angled Hole - Task 43	Fabricate two parts from pieces of aluminum per attached Drawing Nos. ND-2403094 and ND-2403096. The specified material of each is 6061-T6 aluminum. The parts must meet the specs on each drawing.	National Security Technologies	Lowe, Daniel		1,000	6/30/2012
Mining, Materials, and Manufacturing		UNLV		Identifying and Understanding Environment-Induced Crack Propagation Behavior in Ni-Based Superalloy INCONEL 617 (09-075)	The goal of the proposed project is to study the crack propagation process of alloy 617 at temperature of 650-950 C in air under static/cyclic loading conditions to identify environmental and mechanical damage components, and then to understand in-depth the failure mechanism.	Battelle Energy Alliance, LLC	Ma, Longzhou		317,700	9/30/2012
Mining, Materials, and Manufacturing		UNLV		TEM Characterization of Pu Contained Soil Samples	The work performed at subcontractor location shall consist of laboratory manipulation of wet and dry samples to extract desired aliquots with Pu-contamination, and to perform detailed morphological and structural analysis of the samples using TEM.	Los Alamos Nat'l Lab	Ma, Longzhou		6,000	6/15/2012
Mining, Materials, and Manufacturing		UNLV		Theoretical Investigations of Molecular Collisions and Chemical Reactions at Ultracold Temperatures	The objective of this proposal is to explore tow key issues that are central to current research on ultracold molecules.	National Science Foundation	Naduvvalath, Balakrishnan		182,354	7/31/2013
Mining, Materials, and Manufacturing		UNLV		Neutron Detector Characterization - Task 34	NSTec researchers will use the Pu-Be neutron source at UNLV to investigate the thermal neutron response in a variety of detectors. The characterization work will be spread over a series of sessions in FY 12. UNLV will provide access to Pu-Be neutron sources, however UNLV, will manipulate and maintain the source.	National Security Technologies	O'Brien, Robert		7,000	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Resource Conservation and Sustainable Las Vegas - Task 1	This research project will develop educational, research, and outreach activities that address the challenges of Las Vegas related to a secure energy supply through conservation, clean and adequate water supply, economic growth and diversification, air quality, and the best use of land, and usable public places.	U.S. Department of Energy	Piechota, Thomas		490,246	5/31/2013
Mining, Materials, and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	The project combines experiments with modeling needed to interpret experimental observations and operations. Results of these studies are needed to validate and to improve materials codes for largely unexplored ranges of pressure and temperatures experienced by weapons materials.	U.S. Department of Energy	Pravica, Michael		1,175,671	12/31/2012
Mining, Materials, and Manufacturing		UNLV		Collaborative Research: Links Between Magma Source Characteristics, Shallow Plumbing, and Eruptive Styles in Mafic Intraplate Volcanic Fields (Lunar Crater Volcanic Field, Nevada)	We hypothesize that there are systematic links between eruptive scale and style and the characteristics of magma sources, including the scale and composition of local mantle heterogeneities, in intraplate volcanic fields in general. While there are variations in detail due to shallow processes (changes in dike/conduit geometry, degassing), these systematic deep relationships are the main determining factor in defining the eruptions. The proposed work will test this hypothesis by integrating a range of data from the Lunar Crater Volcanic Field (central Nevada).	National Science Foundation	Smith, Eugene		173,244	7/31/2013
Mining, Materials, and Manufacturing		UNLV		High Speed Electronics, Using Novel Wide Bandgap Semiconductor Devices - Task 32	Provide faculty, a well-qualified undergraduate or graduate student to conduct the following in support of the NSTec-UNLV Collaboration: Center of Excellence Pilot Projects: 1) Circuit prototyping, test and modeling of GaN and SiC device based electronics circuitry; 2) Functional electronic boards with applicable system technologies based on GaN and SiC devices. UNLV shall provide lab space and help experimental setup, to facilitate the engineer aspects of the project.	National Security Technologies	Sun, Ke-Xun		50,000	9/30/2012
Mining, Materials, and Manufacturing		UNLV		Cataloging Legacy Seismic Data - Task 39	Cataloging and digitization of relevant legacy data records. Digitally catalog the dates, times and locations of the analog legacy data housed at NSTec and other locations, as available. The cataloging will allow researchers to search the database by event and location, and other factors to be determined, such as signal amplitude and duration. The final step of this phase of the project will be to test methods of conversion of the data from analog to digital.	National Security Technologies	Taylor, Wanda		221,715	2/28/2013
Mining, Materials, and Manufacturing		UNLV		Collaborative Research: Dynamic Disproportionate Collapse in Flat-Plate Buildings	The goal of this research is to provide urgently needed experimental data and effective modeling approaches for the disproportionate collapse of older reinforced concrete flat-plate buildings.	National Science Foundation	Tian, Ying		159,986	5/31/2014
Mining, Materials, and Manufacturing	Clean Energy	UNLV		Stockpile Stewardship Research and Development	Continue further studies of lanthanide compounds with respect to compression-induced transitions to low-symmetric or modulated phases.	U.S. Department of Energy	Tschauner, Oliver		903,510	12/31/2012

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

MINING, MATERIALS & MANUFACTURING SECTOR

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Mining, Materials, and Manufacturing		UNLV		Feasibility Study on the Monitored Retrievable Geological Repository	We propose to study the following three issues focused on retrievability as an idea to solve different problems related with the repository for high level radioactive waste (including SNF): policy making, site selecting, construction and operation. This study will address current efforts of using the retrievability concept in the design of the geological repository in other countries, and assess critical issues existing in the design.	Sandia National Laboratories	Yim, Woosoon		149,380	12/31/2012
Mining, Materials, and Manufacturing		UNLV		II NEW: Collaborative Research: Robotic Catheterization Using Ionic Polymer-Metal Composite Actuator	In this research, the fundamental framework to develop active catheters using an Ionic Polymer-Metal Composite (IPMC), highly active electro-active polymer, with controllable features is proposed. To accomplish the proposed framework, this proposal requests to support for the acquisition of necessary equipment to create two laboratories at University of Nevada, Las Vegas (UNLV) and University of Nevada, Reno (UNR).	National Science Foundation	Yim, Woosoon		321,898	5/31/2013
Mining, Materials and Manufacturing	Tourism, Gaming, and Entertainment	UNR		MINING COOP FUND RESEARCH	Mineral resource investigations, including base and precious metals and industrial minerals; geologic mapping; neotectonic investigations, including geodetic monitoring using global positioning system instrumentation; subsidence investigations; water resource investigations; geographic information systems; geographic names research investigations of radon hazards and investigations of landslide and debris-flow hazards.	Mining Co-op Foundation	PRICE,JONATHAN G.		1,654,730	6/30/2014
Mining, Materials and Manufacturing		UNR		FLUID PATHWAYS/METAL TRANSPORT	Integrate a comprehensive, field-based, detailed three-dimensional model of the geology of a major Carlin-type gold district with state of the art microanalyses of ore pyrite and alteration minerals (quartz), to determine the source of auriferous hydrothermal fluids, the pathways through which the fluids migrated, and how the fluids evolved chemically during transport to, deposition in, and egress from ore zones.	National Science Foundation	MUNTEAN,JOHN L.		162,544	6/30/2012
Mining, Materials and Manufacturing		UNR		MINERAL DEPOSITS IN NYE CNTY	Build the infrastructure necessary for the mineral assessment that is dependent on funding of additional phases of the project.	Department of the Interior, Geological Survey	MUNTEAN,JOHN L.		363,112	5/31/2012
Mining, Materials and Manufacturing		UNR		ARRA: TASK 1-LIDAR DATA ANALYS	Collect and library data on the occurrence of Quaternary faults, geochemical and temperature anomalies in a GIS database for construction of models for resource potential within the NAS Fallon land.	Department of Defense, Department of the Navy/SEI Group Incorporated	BELL,JOHN W., CALVIN, WENDY		424,775	5/31/2012
Mining, Materials and Manufacturing		UNR		USGS COOPERATIVE AGREEMENT	Assist with laboratory Experiments on Chalcopyrite Dissolution Kinetics.	Department of the Interior, Geological Survey	THOMPSON,JEFFREY S.		257,191	2/28/2014
Mining, Materials and Manufacturing		UNR		MICRO-MECHANISMS & MULTI-SCALE	Explore the fundamental microscopic mechanisms of the cyclic plastic deformation and fatigue failure of the magnesium single crystals through the collaboration of researchers from materials science and applied solid mechanics.	Department of Energy	LI,QIZHEN, JIANG, YANYAO	LLEWELLYN DAVIS	713,000	3/14/2012
Mining, Materials and Manufacturing		UNR		ARRA: SINGLE CRYSTAL NIOBIUM	Scale up a process for producing large diameter niobium (Nb) single crystal tubes for particle accelerator cavities.	Department of Energy	MURPHY,JAMES E.		200,000	5/31/2012
Mining, Materials and Manufacturing		UNR	UNIVERSITY OF UTAH	INFRASTRUCT-ELECTRON MICROSCOP	Infrastructure Support for Electron Microscope for Analysis of Irradiated Materials.	Department of Energy	CHIDAMBARAM, DEVICHARAN		248,500	8/31/2012
Mining, Materials and Manufacturing		UNR		CAREER: SYNTHESIS, MICROSTRUCT	Establish an integral research and education/outreach program to synthesize magnesium-based nanoporous materials and explore their fundamental relations among processing, microstructure and properties.	National Science Foundation	LI,QIZHEN		113,824	8/31/2016
Mining, Materials and Manufacturing		UNR		FACULTY DEVEL PROG/NUCLEAR MAT	Increase the number of Americans graduating with a theoretical understanding and research knowledge of Nuclear Materials specialization.	Nuclear Regulatory Council	CHIDAMBARAM, DEVICHARAN		449,393	8/3/2014
Mining, Materials and Manufacturing		UNR		SINGLE CRYSTAL NIOBIUM	Scale up a process for producing large diameter niobium (Nb) single crystal tubes for particle accelerator cavities.	Department of Energy	MURPHY,JAMES E.		200,000	5/31/2012
Mining, Materials and Manufacturing		UNR		NUCLEAR ENERGY/SCI INFRASTRUCT	Establish a high-temperature and high-pressure materials testing (simultaneous mechanical and corrosion) facility at University of Nevada Reno.	Department of Energy	CHIDAMBARAM, DEVICHARAN		298,128	12/18/2012
Mining, Materials and Manufacturing		UNR		ADV HEAT/MASS EXCHANGER: P2	Design, develop and characterize unique coating materials and surface configurations capable of accommodating a 10-inch increase in exchanger performance via phase change processes (boiling, condensation, etc.), convective heat transfer, and the performance of mass exchange membranes (water treatment).	Department of Energy	CHILDRESS,AMY E., LACA, PAUL, GREINER, MILES, KIM, KWANG J., PARK, CHANWOO		1,200,000	9/17/2012
Mining, Materials and Manufacturing		UNR		NANO-STRUCTURE COATS FOR HIGH	Characterize the high temperature nano-structured coating for application in industrial heat exchangers.	Department of Energy/NEI Corporation	KIM,KWANG J.		141,880	3/31/2012
Mining, Materials and Manufacturing		UNR		LAUNCH TUBE CLOSURE SYSTEMS	Evaluate reusable design concepts that would eliminate pyrotechnic or fly through rupture of the forward closure systems, thus eliminate conditions that create debris.	Department of Defense, Department of the Army/Advance Materials & Devices Incorporated	GORDANINEJAD, FARAMARZ		493,026	12/31/2012
Mining, Materials and Manufacturing		UNR	U of Florida	MULTIFUNCTIONAL SPM PROBE	Address the critical issues of throughput, repeatability, scalability, and limited functionality of probe-based nanofabrication by designing, fabricating, and testing a novel active cantilever probe with an automated ability to interchange probe tips.	National Science Foundation	LEANG,KAM K.		252,372	8/31/2012
Mining, Materials and Manufacturing		UNR		A NEW PASSIVE-ACTIVE ISOLATOR	Synthesize and study novel field-controllable magnetic foam (MF) materials with tunable mechanical and acoustical characteristics.	National Science Foundation	GORDANINEJAD, FARAMARZ		200,000	7/31/2012
Mining, Materials and Manufacturing		UNR		NUCLEAR FELLOWSHIP PROGRAM	Increase the number and quality of students receiving MS and Ph.D. degrees at UNR who are able to support the design, construction, operation, and regulation of nuclear facilities, and the safe handling of nuclear materials.	Nuclear Regulatory Council	GREINER,MILES		399,997	4/30/2014
Mining, Materials and Manufacturing		UNR		CHIRAL OBJECTS	Focus on chiral effects in microbial locomotion and the dependence of separation inducing chiral drift on particle geometry.	National Science Foundation	FU,HENRY C.		21,617	9/30/2013
Mining, Materials and Manufacturing		UNR		REU: ACTIVE/PASSIVE ISOLATOR	Recruit one undergraduate student in mechanical engineering to build a prototype, set-up experiments, perform data collection and interpretation.	National Science Foundation	GORDANINEJAD, FARAMARZ		6,000	7/31/2012
Mining, Materials and Manufacturing		UNR		EAGER:CHIRAL SEPARATION/MICRO-	Model effects of variation of particle geometry on chiral separation in shear flows at colloidal and molecular scales.	National Science Foundation	FU,HENRY C.		72,944	9/30/2013
Mining, Materials and Manufacturing		UNR		MRI: NANOMECHANICAL TESTER	Investigate the multiaxial cyclic deformation and fatigue of magnesium and its alloys and to theoretically develop the associated constitutive models and multiaxial fatigue criteria to simulate cyclic deformation and predict fatigue life and cracking behavior.	National Science Foundation	JIANG,YANYAO		248,725	8/31/2014
Mining, Materials and Manufacturing		UNR		HCC: SMALL: ENGAGE BLIND USERS	Investigate how virtual worlds can be made accessible to screen reader users.	National Science Foundation	FOLMER,EELKE		0	7/31/2013
Mining, Materials and Manufacturing		UNR		NDOT MAINTENANCE CUST SATISFAC	Survey focus groups for enhancing NDOT Maintenance Customer Satisfaction.	Department of Transportation, National Highway Traffic Safety Administration/State of Nevada, Department of Public Safety, Office of Traffic Safety	DAHIR,VERONICA G.		47,158	3/15/2012
Mining, Materials and Manufacturing		UNR		MINIMIZING MERCURY POLLUTION	Study of the elution of gold, silver and mercury and their interactions to minimize the amount of mercury emitted to the environment.	Barrick GoldStrike Mines	FUERSTENAU,MAURICE C.		98,149	6/30/2012
Mining, Materials and Manufacturing		UNR		HAULAGE OP ROUND MOUNTAIN MINE	Build and develop a simulation and animation model for the Kinross Gold Corp's Round Mountain Mine in Nevada.	Kinross Gold Corporation	TAYLOR,DANNY L.		65,091	12/31/2012

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Mining, Materials and Manufacturing		UNR		JERRITT CANYON DISTRICT	Assist in the compilation of a geologic map of the entire Jerritt Canyon mining district at a scale of 1:24,000.	Queenstake Resources USA INC	MUNTEAN,JOHN L.		88,000	12/31/2012
Mining, Materials and Manufacturing		UNR		SOUTH EUREKA MAPPING PROJECT	Understand the geologic structure of the mining area to identify potential new exploration targets in the South Eureka district.	Timberline Resources Corp	LONG,SEAN P.		20,000	4/30/2013
Mining, Materials and Manufacturing		UNR		SNOWSTORM	Develop tools to assist exploration for Eocene-age Carlin-type , gold deposits in Paleozoic rocks underneath post-mineral volcanic and sedimentary cover of mainly Miocene age.	Snowstorm Exploration LLC	MUNTEAN,JOHN L.		73,272	12/31/2012
Mining, Materials and Manufacturing		UNR		NDOM SUPPORT FOR MIN-ENG PROG	Support the mineral exploration, mining and extractive mineral processing programs that have received budgetary cuts.	State of Nevada, Commission on Mineral Resources	THOMPSON,JEFFREY S.		1,195,278	6/30/2012
Mining, Materials and Manufacturing		UNR		ECON IMP/COEUR ROCHESTER MINE	Estimate the economic, employment, and income impacts to Pershing and Humboldt counties from reopening of the Coeur Rochester Mine.	Coeur Rochester Incorporated	HARRIS,THOMAS R.		15,000	3/1/2012
Mining, Materials and Manufacturing		UNR		PAVEMENT TECHNOLOGY	Conduct research activities into the materials, design, and construction of pavements to improve the service of roads in the Truckee Meadows region.	Washoe County Regional Transportation Commission	SEBAALY, PETER E.		150,000	6/30/2013
Mining, Materials and Manufacturing		UNR		CONTROLLED DROPWISE CONDENSATI	Develop a durable superhydrophobic condensing surface that dramatically increases the heat transfer efficiency of industrial steam heat condensers.	Korean Institute of Energy Research	KIM,KWANG J.		67,209	5/31/2012
Mining, Materials and Manufacturing		UNR		WEAK ROCK MASS IN NV GOLD MINE	Development of a support design methodology and design guidelines for entry-type excavations in for weak rock mass in Nevada gold mines.	Department of Health & Human Services, Centers for Disease Control & Prevention	KALLU,RAJAGOPALA		250,000	8/31/2012
Mining, Materials and Manufacturing		UNR		DESIGN GRIPPING FIXTURES	Pursue an integration of the strengths of the expertise in mechanical experiments for mechanical properties of materials using different types of materials testers at the University of Nevada, Reno and the unique neutron diffraction facilities for microscopic characterizations and fundamental understanding of material deformation and failure.	Department of Energy/University of Tennessee, Battelle LLC	JIANG,YANYAO		10,928	12/31/2012
Mining, Materials and Manufacturing		UNR		CONSORTIUM OF COMPANIES	Develop a UNR technology center for the pavement protective coating industry and the various agencies that use pavement coating.	Consortium Agencies	SEBAALY,PETER E.		295,125	7/5/2012
TOTAL									38,584,776	

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Business IT Ecosystems		UNLV		2012 Kids Count Nevada	Prepare, publish and disseminate the data products on the condition of children and families. Maintain accurate, up-to-date and sub-state level data through an interactive online data system such as the KIDS COUNT Data Center. Serve as a clearinghouse within Nevada for materials from the Foundation and others, including the national KIDS COUNT Data Book and other relevant reports, studies, publications, and/or films. Serve as a resource within Nevada for state and county-level data across the range of issues that affect children and families, with a focus on providing regular data and analysis for policymakers, the media, and the general public. And actively participate in the KIDS COUNT Network and relevant convenings planned by the Foundation.	Annie E. Casey Foundation	Brown, Stephen		75,000	12/31/2012
Business IT Ecosystems		UNLV		Clark County Population Forecasts	Produce a series of three (3) annual forecasts using the most current version of the software publicly available. Each forecast will address population and employment in Clark County, Nevada and will include projections in yearly increments for a period of thirty (30) years, or other time period as agreed by the parties. CBER will consult with SNRPC, RTC, SNWA, and others as CBER deems necessary to produce the forecasts and shall provide copies in electronic form to all parties.	Southern Nevada Regional Planning Coalition	Brown, Stephen		108,000	6/30/2014
Business IT Ecosystems	Clean Energy	UNLV	Nevada System of Higher Education	Cyberlearning in Climate Change - ARRA	The intent and purpose of the newly funded Nevada NSF EPSCoR Cyberinfrastructure 2 (C2) program is to enhance connectivity within the Nevada System of Higher Education (NSHE) to achieve higher network speeds and capacity to advance NSHE education and research. The proposed project will provide Nevada research institutions with the requisite connectivity to the internet and high performance research networks and training to meet internal connectivity and collaboration needs and compete effectively with tier one research institutions for research, education, and collaboration opportunities.	NSF EPSCoR	Crippen, Kent		12,799	8/31/2012
Business IT Ecosystems		UNLV		UNLV IB Project	This proposal comprises a suite of activities to bring these elements - students, business community, international contacts, faculty - into interaction with each other. Specific activities focus on experiential learning to bring students and practitioners of international business into contact, support for study abroad to provide students with international experience, and grants for faculty research and development to integrate faculty into international business.	U.S. Department of Education	Jameson, Melvin		123,403	6/30/2013
Business IT Ecosystems		UNLV		Development of Remote Erasure of Information Stored on Mobile Phones	This research project will involve the following: (1) Perform literature survey to find out the basic methodology and technology available to perform remote erasure; (2) Software will be built to perform remote erasure on various platforms, such as the I-phone; (3) The prototype will be demonstrated showing the erasure procedure; (4) The software code to perform the erasure will be delivered; (5) The final report will contain all the details, flow chart, user and developer guide for the system.	Jayn International	Kachroo, Pushkin		30,000	5/31/2013
Business IT Ecosystems		UNLV	Nevada System of Higher Education	Liquid Crystal-Based Beam Steering for Wireless Power Transmission in Space	This proposal intends to build research infrastructure in space science through investment in an enabling technology in Wireless Power Transmission (WPT). Specifically, we propose investigating architecture efficiency in the area of electronic beam steering for future use in WPT applications.	National Aeronautics and Space Administration	Latifi, Sharam		19,429	12/31/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 6 (Cyber)	1. Start developing research infrastructure in accordance with the objectives and outcomes of the project. 2. Coordinate efforts in conjunction with CENIC and other relevant initiatives. 3. Organize steering committee meetings and hire graduate students. 4. Purchase equipment.	EPSCoR NSF	Latifi, Sharam		256,733	6/30/2013
Business IT Ecosystems		UNLV		The 8th International Conference on Scientific Computing and Applications	Scientific Computing becomes a rapidly growing multidisciplinary field that uses advanced computing capabilities to understand and solve complex problems in sciences, engineering, and humanities. In recent years, there are many important progress made in this field. In order to disseminate and put the state-of-the-art computational techniques into broad applications, we propose to host The 8th International Conference on Scientific Computing and Applications at the University of Nevada, Las Vegas (UNLV) during April 1-4, 2012. The aim of this proposed four-day research conference is to bring together computational scientists from several disciplines in order to exchange the original ideas and methods. We are expecting 80-100 participants with 8 invited plenary 45-minute talks. In addition, several parallel sessions of 30-minute talks are planned. Some exemplary sessions are Scientific Computation for Electromagnetic Waves, Numerical Methods for Stochastic PDEs, Computational Methods for Multiphase Flow in Porous Media, Modeling and Numerical Methods for Renewable Energy, and Meshfree/Meshless Methods. A refereed conference proceeding will be published either as a book in AMS Contemporary Mathematics series or as a special issue of a computational science journal.	National Science Foundation	Li, Jichun		20,660	9/30/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	NSF EPSCoR RII UNLV Task 6 (Cyber) Faculty Start Up	Start-up funds for new faculty hire. 1. Start developing research infrastructure in accordance with the objectives and outcomes of the project. 2. Coordinate efforts in conjunction with CENIC and other relevant initiatives. 3. Organize steering committee meetings and hire graduate students. 4. Purchase equipment.	NSF EPSCoR	Morris, Brendan		96,750	8/31/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	NSF EPSCoR Cyberinfrastructure Development - Mgmt - Task 1	Funds are to be used for travel to the Annual Tri-State Consortium Meeting in Sun Valley, Idaho. Participants include faculty and staff working on both the Track 2 and Track 1 NSF EPSCoR projects. Tom will be responsible for recruiting participants and processing expenses.	NSF EPSCoR	Piechota, Thomas		37,152	6/30/2013
Business IT Ecosystems		UNLV	Nevada System of Higher Education	Advanced Computer Vision, Robotics, and Visualization Algorithms for Improving Planetary Exploration and Understanding	The main goal of this project is to advance NASA's technologies so as to improve planetary exploration and understanding in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames. In particular, the project aims to (1) build significant research capacity in Nevada in areas of strategic importance to NASA while at the same time contributing to NASA's research priorities, (2) achieve national research competitiveness and self-sufficiency, (3) improve STEM education and enhance Nevada's graduate programs in Computer Science and Engineering, (4) improve economic development in Nevada, and (5) promote the education, research, and public service priorities of the NASA Space Grant Consortium.	NASA EPSCoR	Regentova, Emma		124,101	8/31/2014
Business IT Ecosystems		UNLV	NV System of Higher Education	Advanced Computer Vision, Robotics, and Visualization Algorithms for Improving Planetary Exploration and Understanding - State Match	The main goal of this project is to advance NASA's technologies so as to improve planetary exploration and understanding in collaboration with the Intelligent Robotics Group (IRG) at NASA Ames. In particular, the project aims to (1) build significant research capacity in Nevada in areas of strategic importance to NASA while at the same time contributing to NASA's research priorities, (2) achieve national research competitiveness and self-sufficiency, (3) improve STEM education and enhance Nevada's graduate programs in Computer Science and Engineering, (4) improve economic development in Nevada, and (5) promote the education, research, and public service priorities of the NASA Space Grant Consortium.	NV System of Higher Education	Regentova, Emma		14,977	5/13/2013
Business IT Ecosystems		UNLV		Fundamental Research on Universal Video Imaging Sensor	UNLV shall provide the fundamental research effort in the following general areas: a. Digital Wireless Transceiving; b. Network Architecture; c. Imaging Sensor Communication; d. Compression and Encryption Algorithms.	Latel Corporation	Saberinia, Ebrahim		225,000	11/30/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	C4D Expansion - ARRA	Apple MacBook Learning Lab	NSF EPSCoR	Schrader, PG		13,199	7/31/2012
Business IT Ecosystems		UNLV	Nevada System of Higher Education	Cyberinfrastructure Development for the Western Consortium of Idaho, Nevada, and New Mexico - Task 4	The goal of this project is promote knowledge transfer to scientists, educators, students, and citizens within and beyond the Consortium by enhancing state CI, and to enable the community science that is required to address regional to global scientific and societal challenges.	NSF EPSCoR	Schrader, PG		320,234	6/30/2013
Business IT Ecosystems		UNLV		Internal Auditing Education Partnership	The objective would be to develop a simulated operational audit to be used in the Internal Auditing class. For a number of years, a key component of this class has been an actual audit of a department, program or process in the university. Decreases in instructor resources and budget cuts resulting in fewer professional and classified staff in the university have made this project infeasible. The goal would be to create a simulation of an audit that would utilize a variety of multimedia methods to replicate a real-world experience as much as possible.	Institute of Internal Auditors	Tandy, Paulette		10,900	6/1/2012

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Business IT Ecosystems		UNLV		Special Impact Zone	The Nevada Small Business Development Center has consolidated the office known as the North Las Vegas Sub Center into the UNLV NSBDC main office. From the main UNLV office, the NSBDC continues to provide business counseling, training, literature, DBE and environmental and safety services to business and interested individuals wishing to start a business or improve an existing business within the North Las Vegas area and the Special Impact Zone. NSBDC will also continue to provide and sponsor training programs and seminars covering relevant business topics on a regular basis to the citizens of North Las Vegas. The NSBDC will provide advertising and direct mail notices to clients and will engage in other marketing efforts to promote all NSBDC service and training seminars. Wherever possible, these items will be provided free of charge to residents of the impact zone. Larry Vierra (Spanish-speaking counselor), will serve as the NSBDC counselor primarily responsible for the city of North Las Vegas and the Special Impact Zone with Janis Stevenson serving as the backup counselor. He is assigned to attend committee meetings and chamber functions, be a member of applicable boards and to be available to address any concerns brought to the attention of the NSBDC by those in the North Las Vegas area and Special Impact Zone.	Nevada Commission on Economic Development	Vierra, Larry		20,754	6/30/2012
Business IT Ecosystems		UNLV		MRI: Development of a Highly Scalable and Reconfigurable Testbed in Support of Future Many-Core and System-on-Chip Research and Design Exploration	PIs are proposing to develop a highly scalable and reconfigurable multi-board-based testbed which can emulate and validate future large-scale many-core and system-on-chip systems. In specific, this testbed will be able to efficiently and effectively emulate all the functionalities that are perceived at both the NoC and the full-system levels.	National Science Foundation	Yang, Mei	Purdue University	499,999	8/31/2014
Business IT Ecosystems		UNR		BALLOONING SHORT COURSE	Developed and conduct programs to inform and inspire teachers to trans excitement and knowledge onto their students.	National Aeronautics & Space Administration/Nevada System of Higher Education, Chancellor's Office	LACOMBE,JEFFREY C.		54,365	8/15/2012
Business IT Ecosystems		UNR		NUCLEAR ENG & COMBUSTION COURS	Develop two new courses critical to the regulatory mission of the NRC: "Nuclear Materials Engineering" and "Introduction to Combustion."	Nuclear Regulatory Council	CHIDAMBARAM, DEVICHARAN		82,916	8/31/2013
Business IT Ecosystems		UNR	CUREE	NEESR-GC: SEISMIC PERFORMANCE	Enhance significantly the seismic resilience of building and communities, by providing practicing engineers and architects with verified tools and guidelines for the understanding, prediction and improvement of the seismic response for the ceiling-piping-partition nonstructural system.	National Science Foundation	MARAGAKIS,EMMANUEL A.		3,821,987	8/31/2012
Business IT Ecosystems		UNR		LARGE-SCALE STRUCTURES LAB	Expand the Large-Scale Structures Laboratory at UNR, which will be used to house four earthquake shake tables, work rooms, offices for graduate students and visiting scholars, and an interactive auditorium.	Department of Energy	BUCKLE,IAN G.		1,967,992	3/29/2012
Business IT Ecosystems		UNR		EXPANSION EARTHQUAKE FACILITY	Add approximately 22,000 sq. of laboratory, office, and auditorium space to the existing Large-Scale Structures Laboratory for expanding the earthquake engineering program at UNR.	Department of Commerce, National Institute of Standards & Technology	BUCKLE,IAN G.		12,221,796	10/31/2013
Business IT Ecosystems		UNR	UNLV; Black Eagle Consulting; Earth Reinforcement Testing Inc	CORROSION OF NV MSE WALLS, II	Create guidelines and procedures that will enable NDOT personnel to make decisions about the follow-up of activities relative to NDOT's MSE wall corrosion problem.	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	SIDDHARTHAN,RAJARATNAM		367,522	3/31/2013
Business IT Ecosystems		UNR		ARRA: SMART METER TESTING	Investigate the accuracy of a variety kW-Hour meters using a versatile calibrated device.	Department of Energy/Nevada Power Company	ETEZADI-AMOLI,MEHDI		222,570	12/31/2012
Business IT Ecosystems		UNR		NVREC WORKFORCE RE CERT PROG	Evaluate current smart meters for security vulnerabilities, implement prototype solutions to counter vulnerability and test modified prototype smart meters under simulated residential loads.	Department of Energy/Nevada System of Higher Education, Desert Research Institute	ETEZADI-AMOLI,MEHDI, MARCHAND, ERIC A.		184,753	9/30/2012
Business IT Ecosystems		UNR		EPSCOR-TASK 3 INTEROPERABILITY	Provide support to consortia of EPSCoR jurisdictions to support innovation-enabling Cyber infrastructure of regional, thematic, or technological importance for the successful pursuit of significant consortium opportunities in science and engineering.	Department of Energy/Nevada System of Higher Education, Chancellor's Office	HARRIS,FREDERICK C.		554,001	8/31/2012
Business IT Ecosystems		UNR		INTERNET ANONYMIZERS	Provide to state and local law enforcement an expansion of their ability to respond to Internet investigations through the ability to identify anonymous users.	Department of Justice, National Institute of Justice/Veri Software	GUNES,MEHMET H.		107,792	6/30/2012
Business IT Ecosystems		UNR	UofUlster;Sapienza Univ;Kingston Univ	SMART MONITORING	Develop a system that allows for robust and efficient coordination among robots, vision sensors and human guards in order to enhance surveillance in crowded environments such as airports, federal buildings, shopping malls and other public places.	Department of Homeland Security	NICOLESCU,MIRCEA		561,135	4/15/2013
Business IT Ecosystems		UNR		SEISMIC TESTING IBM PRODUCTS	Verify the attachment methods, structural and functional performance of the IBM corp.	International Business Machines Corporation	PEKCAN,GOKHAN		364,649	3/1/2012
Business IT Ecosystems		UNR		SPEC PROJ EPSCOR: RID U/G SCHO	Provide scholarships for participants to have costs offset for a K-12 STEM (Science, Technology, Engineering and Mathematics) training workshop.	Nevada System of Higher Education, Chancellor's Office	LACOMBE,JEFFREY C.		1,000	8/31/2012
Business IT Ecosystems		DRI		Gaze-Directed Interaction in CAVEs	Gaze-Directed Interaction in CAVEs	DOD/Eye-Com Corporation Businesses	Coming, Mr. Dan S		100,403	9/30/2011
Business IT Ecosystems		DRI		Advanced Computer Vision, Robotics, and Visualization Algorithms for Improving Planetary Exploration and Understanding	Advanced Computer Vision, Robotics, and Visualization Algorithms for Improving Planetary Exploration and Understanding	NASA/Nevada System of Higher Education Other Higher Ed Institutions	Coming, Mr. Dan S		265,521	8/31/2014
Business IT Ecosystems		DRI		We have a number of high performance computing projects but cannot disclose details due to non disclosure agreements						
TOTAL									22,887,492	

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

LOGISTICS & OPERATIONS SECTOR

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Logistics and Operations		UNLV		Effects of Data Quality on Predictive Hotspot Mapping	The purpose of the proposed research is to contribute to the improved robustness of predictive crime mapping techniques. The research goal is to investigate the effect of data quality on predictive hotspot mapping techniques.	National Institute of Justice	Hart, Timothy	University of New Mexico	193,040	8/31/2012
Logistics and Operations		UNLV		Application Specific Scenario Evaluation Using Driving Simulator - UTC	The main objective of this project is the development of the driving simulator so that we can perform the following studies: distracted driving study, outreach program for effects of impaired driving, training/re-training program for senior drivers, program to conduct simulated tests and surveys for new proposed traffic modifications.	Nevada Department of Transportation	Kachroo, Pushkin		0	6/30/2012
Logistics and Operations		UNLV		Daytime Seatbelt Usage Surveys	To conduct the 2012 day time seat belt usage rate observational surveys for the State of Nevada that conforms to NHTSA's Uniform Criteria for State Observational Surveys of Seat Belt Use. The Transportation Research Center (TRC) at the University of Nevada, Las Vegas proposes to continue conducting surveys across the State of Nevada to determine the rates of seat belt usage in motor vehicles. Media and education campaigns have been conducted and are expected to be conducted in the State of Nevada to increase the rate of use of seat belts. The proposed surveys will serve as an evaluation component of such programs. A detailed statistical analysis will be done to compare pre-campaign and post-campaign results. This survey will help in identifying potential opportunities to develop specific initiatives to increase the rate of seat belt usage.	Nevada Office of Traffic Safety	Kachroo, Pushkin		72,293	9/30/2012
Logistics and Operations		UNLV		Evaluation of Child Safety Seat Usage and Related Programs in Nevada	The project aims to help reduce the child fatalities and serious injuries in Nevada arising due to low use or non-use of child safety seats. TRC will conduct self-reported behavioral surveys to identify how parents and caregivers perceive usage of safety seats for children. This data will help to improve Child Passenger Safety programs within different organizations in Nevada.	Nevada Office of Traffic Safety	Kachroo, Pushkin		32,000	9/30/2012
Logistics and Operations		UNLV		Interstate 15 South Design Build Comprehensive Evaluation Study Based on Quantitative and Qualitative Analysis - UTC	The main objective of this project is to study I-15 construction project carefully by collecting and analyzing traffic related data. The aim is to study the impacts of major events during the construction by collecting data before, during and after main such events. The study of traffic control plans during those events allows us to learn ways to prepare lessons learned, and build guidelines for future design-build projects, so that the impact of such projects is minimized on the travelers and residents.	Nevada Department of Transportation	Kachroo, Pushkin		161,516	10/31/2012
Logistics and Operations		UNLV		Nighttime Seat Belt Usage Surveys	The project goal is to estimate statewide nighttime seat belt use that would be beneficial to understanding the problem of nighttime driving risk. This survey will be conducted in accordance with the most recent guidelines published by NHTSA in 2010. Additionally, the findings would be beneficial to evaluate the effectiveness of the education and enforcement campaigns conducted by the Nevada Office of Traffic Safety.	Nevada Office of Traffic Safety	Kachroo, Pushkin		45,000	9/30/2012
Logistics and Operations		UNLV		Real-Time Traffic Data Laboratory for Research, Education and Training	1. Develop a Blue-tooth sensor system for travel time monitoring and measurement. 2. Develop a simple management tool using Geographic Information System (GIS) to help FAST to manage and query Intelligent Transportation System (ITS) devices. 3. Develop Archived Data User Service (ADUS) system to store, manage, query, upload and download transportation related data from RTC, FAST and the Nevada Department of Transportation and local agencies. 4. Review existing RTC safety analysis software and perform safety analysis on accidents and provide decision making functions. For example, identify high crash intersections to install flashing yellow arrow left-turn signals. 5. Develop a custom complaint system to log citizen complaints regarding FAST signal problems. 6. Implement arterial performance measurement system as contained in the Arterial Performance Monitoring and Measurement System in Las Vegas.	Regional Transportation Commission of So. Nevada	Kachroo, Pushkin		126,252	1/31/2014
Logistics and Operations		UNLV		Signal Timing and Coordination Strategies Under Varying Traffic Demands and Inclement Weather Conditions	The primary objectives of this research include: (1) evaluate signal timing and coordination strategies for signalized arterials under varying traffic flow and driving conditions (2) demonstrate the benefit and cost through case studies; and (3) develop recommendations on implementing promising strategies; (4) produce a research problem statement for determining yellow change and all-red clearance intervals.	Nevada Department of Transportation	Kachroo, Pushkin	University of Nevada, Reno	67,445	7/31/2012
Logistics and Operations		UNLV		University Transportation Center, UNLV - RTC Matching Funds	To conduct a multidisciplinary program of transportation research, education, and technology transfer through a University Transportation Center located at the University of Nevada, Las Vegas.	Regional Transportation Commission of Southern Nevada	Kachroo, Pushkin		170,000	6/30/2012
Logistics and Operations		UNLV		User Interface and Data Processing Project for NDOT	The Performance Analysis Division of NDOT has many duties which require reporting of specific data in a number of different formats and reports. Data comes from multiple agencies and sources. For example, data for gallons of fuel consumed on our highways comes from Metropolitan Planning Organizations, several different sections within the Department of Motor Vehicles, and outside organizations like the International Fuel tax Agreement (FTA) clearinghouse. A single piece of data may be used in multiple different reports as primary data or as component data for various analyses. This effort is targeted at NDOT data used by the Performance Analysis Division with the hope of possible accessing/sharing data with other divisions, agencies and entities such as other states. This project proposes a common platform to publish the results of the analyzed data. This is a requirement that not only provides straight statistical answers to any of the queried variables but also predicts certain outcomes. This interactive platform should not just provide data as numbers but should present the results in simple graphical and/or tabular form that can be easily understood by the public. Thus, this common platform should not just distribute data, but should distribute intelligent, knowledge to the public and increase awareness among them.	Nevada Department of Transportation	Kachroo, Pushkin		62,953	6/30/2012
Logistics and Operations		UNLV		Vehicle-Infrastructure Integration Enabled Plug-In Hybrid Electric Vehicles for Energy Management	The PI's purpose is to develop an integrated and interdisciplinary approach that maximizes the benefits of plug-in hybrid vehicles (PHEVs) for use in building a sustainable transportation system.	Clemson University	Kachroo, Pushkin		69,135	7/31/2012
Logistics and Operations		UNLV		City Impact Center Master Planning	Generate a master plan for the City Impact Center site located on Sahara Avenue in Las Vegas, Nevada. The planning process involves the schematic design of buildings and facilities to support an innovative campus/community for social service delivery.	Nevada Community Foundation	Baird, David		20,000	9/30/2012
Logistics and Operations		UNLV		Community Center for Traffic Safety Education and Outreach	Create safer communities through partnership, public education, focused on reducing roadway injuries and fatalities. This project seeks to further reduce the crash rate per VMT in Clark County by an additional two-tenths each year.	Nevada Office of Traffic Safety	Breen, Erin		145,053	9/30/2012
Logistics and Operations		UNLV		Pedestrian Safety Awareness	Provide pedestrian safety education for pedestrians and motorists. Coordinate and support pedestrian safety awareness campaigns. Create educational materials for buses and bus shelters. Develop criteria to identify high crash locations and placement, design and implementation guidelines for pedestrian amenities. Implement pedestrian friendly countermeasures in alignment with FHWA and NCHRP proven/tested strategies.	Nevada Office of Traffic Safety	Breen, Erin		95,000	9/30/2012
Logistics and Operations		UNLV		STARS: Supporting Teens and Roadway Safety	Reduce teen fatalities and injuries on Nevada roadways. The objective of the program is to encourage safe driving habits and more practice on driving skills. To emphasize the importance of every teen life and make driving safely a number one priority to teens.	Nevada Office of Traffic Safety	Breen, Erin		72,992	9/30/2012
Logistics and Operations		UNLV		Performance Assessment Institute (NV)	The funds provided with this grant will be used to purchase and provide equipment, hardware and software in support of computational Performance Assessment (PA) and performance confirmation.	U.S. Department of Energy	Lombardo, Joseph		972,000	12/31/2012

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Logistics and Operations		UNLV		UPWP 3403-11/14 - Before and After Transit Studies	The main objective of the proposed project include: a. This project is an addition task identified in the UPWP36403-11/14: Before and After Studies for RTC Transit. b. An accurate evaluation of current volume of traffic on the proposed BRT routes in the valley before and after implementation of the BRT system. Determine minimum, maximum and average vehicle counts by roadway segments, time and days. c. Classification of vehicles. d. Raw data delivery and CSV format data for modeling vehicle flows and facility planning. e. Comprehensive report of the work conducted.	Regional Transportation Commission of So. Nevada	Muthukumar, Venkatesan		17,000	6/30/2013
Logistics and Operations		UNLV		Calibration on CORISM Model Under Saturated Traffic Flow Conditions - UTC	The primary objective of this research is to develop a calibration framework for the CORISM traffic flow model.	Nevada Department of Transportation	Paz-Cruz, Alexander		115,135	9/30/2012
Logistics and Operations		UNLV	University of Nevada, Reno	Safety and Design Guidelines for Marked and Unmarked Pedestrian Crosswalks at Unsignalized and Midblock Crossing Locations	The primary research objectives are to (i) investigate whether there is a difference in safety performance at marked and unmarked pedestrian crosswalks in Nevada's urban areas; (ii) develop guidelines for installing marked crosswalks at unsignalized intersections and midblock crossings.	Nevada Department of Transportation	Paz-Cruz, Alexander		29,999	6/30/2012
Logistics and Operations		UNLV		Sustainable Planning for Large-Scale Transportation Systems: A Dynamic Simulation-Based Model for the Las Vegas Valley	This research seeks to develop an approach to simultaneously consider key transportation effects required for the planning of sustainable transportation systems in the Las Vegas Valley.	U.S. Department of Energy	Paz-Cruz, Alexander		46,600	8/30/2012
Logistics and Operations		UNLV		Upgrade and Calibration of a Dynamic Traffic Assignment Model for the Las Vegas Roadway Network and Development of a Tool to Generate CORSIM Models from Assignment	The goal of this project is to upgrade and recalibrate the existing Dynamic Traffic Assignment (DTA) model of the Las Vegas Roadway Network and to develop a software tool that can generate CORSIM models from the input and output of the DTA model. Task 1 DTA Model Development and Calibration; Task 2 CORSIM Data Extraction Software; Task 3 Provide DTA Training.	Nevada Department of Transportation	Paz-Cruz, Alexander		135,000	6/30/2013
Logistics and Operations		UNLV		ASHRAE Duct Sound Attenuation	The objective of the proposed research project is to: 1. Quantify the insertion loss of acoustically-lined ductwork over a wide range of duct cross-sectional sizes and duct length with selected duct sound attenuation materials; 2. Develop a methodology for predicting the insertion losses from (1) for any size and length of round and rectangular ducts; 3. Obtain more reliable insertion loss values for frequencies below 250Hz. 4. Investigate the effects of elbow geometrics and duct lining on elbow insertion loss of selected 90-deg 24in. X 24in. duct elbows; and 5. Investigate the effects of branch geometry and duct lining on the branch insertion loss of selected branch duct sizes and geometrics in a 24in X 24in duct.	Amer Soc of Heating, Refrig., & Aircond. Engrs., Inc.	Reynolds, Douglas		173,177	12/31/2012
Logistics and Operations		UNLV		I-Spider Corporate Account - Siemens Building Technologies, Inc.	The long-term purpose of the proposed research is to develop: Casual models that quantify the interrelations between K-12 classroom indoor environmental quality (IEQ) associated with classroom thermal comfort, fresh air ventilation, acoustics and lighting and student cognitive and learning performances, self-reported affect and attendance. Related cost-to-benefit models, energy analyses protocols, and improved classroom IEQ design guidelines based on these casual models that will be used by engineers, architects and school administrators to identify and implement cost effective and optimal solutions to address classroom IEQ problems that have been identified to exist in U.S. K-12 schools.	Various	Reynolds, Douglas		75,000	6/30/2012
Logistics and Operations		UNLV		An Investigation of an Innovative Maintenance Contracting Strategy: Performance-Based Maintenance Contract (PBMC) - Phase 1	The research we are proposing has two phases. First, our study will conduct literature review regarding the Performance-Based Maintenance Contract and other contracting strategies. It will be followed by an evaluation of how NDOT currently performs their maintenance activities, examining the advantages and disadvantages of existing maintenance contracts. The team will evaluate the performance of existing PBMC and other out-sources contracts and identify the maintenance activities that should be contracted out. Based on the success of first phase, the second phase of the research will be conducted. The second phase of the research will determine the performance-based specifications and the performance assessment methods for the maintenance activities proposed to be contracted as PBMCs.	NV Department of Transportation	Shrestha, Pramen		125,433	1/15/2014
Logistics and Operations		UNLV		Preparing Guidelines for Speed Reduction in Towns Along Rural Highways	Initially, a one-phase research program with an 18-month duration is proposed herein to tackle the questions related to creating consistency of speed limit in towns along Nevada rural highways. During the course of the study, a standard guideline for speed limits in towns along rural highways in Nevada will be prepared.	NV Department of Transportation	Shrestha, Pramen		106,261	12/31/2012
Logistics and Operations		UNLV	University of Nevada, Reno	Safety and Design Guidelines for Marked and Unmarked Pedestrian Crosswalks at Unsignalized and Midblock Crossing Locations	The primary research objectives are to (i) investigate whether there is a difference in safety performance at marked and unmarked pedestrian crosswalks in Nevada's urban areas; (ii) develop guidelines for installing marked crosswalks at unsignalized intersections and midblock crossings.	Nevada Department of Transportation	Teng, Hualiang		30,000	6/30/2012
Logistics and Operations		UNLV		University Transportation Center	To conduct a multidisciplinary program of transportation research, education, and technology transfer through a University Transportation Center located at the University of Nevada, Las Vegas.	U.S. Department of Transportation	Hayes, Donald		1,634,743	6/30/2012
Logistics and Operations		UNR		NDOT NIMO	Obtain real-time atmospheric and vehicle data and use the data to assess data quality, as well as use the data in an Maintenance and Decision Support System (MOSS) and a Maintenance Management System (MMS).	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	LACOMBE,JEFFREY C.	PABLO ABRAHAM RIVERA	213,792	9/30/2012
Logistics and Operations		UNR		PERFORMANCE OF... HMA MIXTURES	Monitor and evaluate the performance of the anti-strips additives for HMA (hot mix asphalt) mixtures test sections on a biennial basis through the conclusions of the research and note any significant differences.	Department of Transportation, Federal Highway Administration/South Dakota Department of Transportation	SEBAALY,PETER E.		25,000	5/31/2012
Logistics and Operations		UNR	Florida Int' Univ; UofCA Berkeley	NEESR-SG; SEISMIC PERFORMANCE	Conduct a comprehensive investigation of the seismic performance of a series of models of four-span large-scale bridge systems including the soil-structure interaction effects at the footing and the abutments.	National Science Foundation	SAIDI,MEHDI		2,030,000	10/31/2012
Logistics and Operations		UNR	UCREGENTS-UCLA; UNIV OF HOUSTON	NEESR-SG: BRIDGE COLUMNS	Develop a fundamental knowledge of the impact of combined actions on column performance and system response and to establish analysis and design procedures that include the impact.	National Science Foundation	SANDERS,DAVID H.		1,419,722	9/30/2012
Logistics and Operations		UNR		ASPHALT RESEARCH CONSORTIUM	Outline the hardware and software resources needed to design, implement, and maintain a database management system for the Asphalt Research Consortium (ARC).	Department of Transportation, Federal Highway Administration/Western Research Institute	SEBAALY,PETER E.	KAISER/REID	4,247,166	12/31/2013

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Logistics and Operations		UNR	Reno Iron Works; UCSD; Seismic Systems; GP INDUSTRIES; IMAGE CAT INC; UC-IRVINE; SCOTT MEEK & SON CONCRETE INC	SEISMIC RESILIENCE OF HIGHWAY	Study the resilience of highway systems with a view to improving the performance of these systems subject to major earthquakes.	Department of Transportation, Federal Highway Administration	BUCKLE, IAN G., SAIDI, MEHDI, BUCKLE, IAN G.	RENO IRON WORKS; SCOTT MEEK & SON CONCRETE INC; BERGER ABAM INC	6,069,528	8/19/2014
Logistics and Operations		UNR	South Dakota School of Mines	WMA IN SOUTH DAKOTA	Evaluate the effectiveness of warm asphalt technologies under South Dakota's traffic and environmental conditions.	Department of Transportation, Federal Highway Administration/South Dakota Department of Transportation	SEBAALY,PETER E.		140,000	9/30/2012
Logistics and Operations		UNR		DIFF SOIL TYPES/MSE WALLS	Develop specifications and procedures that will enable NDOT (Nevada Department of Transportation) personnel to make recommendations for safety analysis of geosynthetic MSE (Mechanically Stabilized Earth) walls under Nevada conditions.	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	SIDDHARTHAN, RAJARATNAM		57,199	4/15/2012
Logistics and Operations		UNR		PWL SYSTEM/ASPHALT CONST	Develop a specification system based on statistical analyses of actual field measured data during the construction of asphalt pavements. Pay factors will access the appropriate bonuses and penalties based on actual materials properties of the constructed pavement.	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	SEBAALY,PETER E.		298,985	12/31/2013
Logistics and Operations		UNR	UCBerkeley; SUNY; UNIV OF WISCONSIN-GREEN BAY	NEESR-GC: TIPS-TOOLS TO FACILI	Create and promote tools that will facilitate adoption of isolation and protective systems during the earthquakes, which will provide the capability to control both structural and non-structural damage by simultaneously reducing accelerations and story drifts.	National Science Foundation	RYAN,KERI L.		621,870	9/30/2012
Logistics and Operations		UNR		SIGNAL TIMING BASED ON TRAFFIC	Develop strategies for coordinating traffic signals under varying traffic demands and inclement weather conditions.	Department of Transportation, Research & Special Programs Administration/Nevada System of Higher Education, University of Nevada, Las Vegas	TIAN,ZONG		68,550	6/30/2012
Logistics and Operations		UNR		GAP DAMPER FOR BASE ISOLATION	Design, analyze and test a passive device to be used with a base isolation system that will control isolator displacement demands resulting from very rare earthquakes.	National Science Foundation	RYAN,KERI L.		194,994	6/30/2014
Logistics and Operations		UNR		NEESR-GC: TIPS-NIED	Create and promote tools that will facilitate adoption of isolation and protective systems during the earthquakes, which will provide the capability to control both structural and non-structural damage by simultaneously reducing accelerations and story drifts.	National Science Foundation	RYAN,KERI L.		223,273	9/30/2012
Logistics and Operations		UNR		NEESR-SG: BRIDGE COLUMNS REU	Study the impact of the different testing methods (Slow Circle, Hybrid Simulations and Shake Table) on performance.	National Science Foundation	SANDERS,DAVID H.		6,000	9/30/2012
Logistics and Operations		UNR	Hexcel Fyfe Co; Nitinol Dev; Dynamic Isolation Systems;FiberMatrix	SUSTAINABLE HIGHWAY BRIDGES	Develop novel bridge columns using advanced materials and details to resist extreme roads.	National Science Foundation	SAIDI,MEHDI		597,121	8/31/2014
Logistics and Operations		UNR		BADGE ON BOARD	The Badge On Board program has three objectives: First is to educate passenger vehicle drivers about safe driving near large trucks. Second is to enforce moving violations that occur around large trucks by both passenger vehicles and other large trucks. Third is to validate the effectiveness of the program through data collection and analysis.	Department of Transportation, Federal Motor Carrier Safety Administration/State of Nevada, Department of Public Safety, National Highway Patrol	TIAN,ZONG		99,900	8/31/2014
Logistics and Operations		UNR		TRAFFIC MICRO-SIMULATION MODEL	Provide technical support for Regulatory Transportation Commission on various traffic engineering studies.	Department of Transportation, National Highway Traffic Safety Administration/Regulatory Transportation Commission of Southern Nevada	TIAN,ZONG		80,000	6/30/2012
Logistics and Operations		UNR		GEOSYNTHETICS/PAVEMENT PERFORM	Evaluate the influence of geosynthetic in the base and subgrade layers on the performance of flexible and rigid pavements and their impact on the structural design of these pavements.	Department of Transportation, Federal Highway Administration/Texas A&M University	HAJJ,ELIE Y.		3,578	3/1/2014
Logistics and Operations		UNR		NDOT MDSS PHASE 2	Develop recommendations and formulate an implementation plan for a Maintenance Decision Support System (MOSS) for the Nevada Department of Transportation (NDOT).	Department of Transportation, Federal Highway Administration/State of Nevada, Department of Transportation	WANG,ERIC L.		199,442	3/31/2013
Logistics and Operations		UNR		TRANSPORTATION FIRE ACCIDENT	Perform a complete technical analysis of a spent fuel transport package in a long-duration fire accident, specified by the NRC (National Research Council).	Nuclear Regulatory Council	GREINER,MILES	COMPUTATIONAL ENGINEERING/R NARAYANA	66,340	8/31/2012
Logistics and Operations		UNR		EXPECTANCY EFFECTS IN FDE	Investigate the existence and nature of expertise related to forensic document examination, the evaluation and interpretation of the salient features of signature specimens, and the relationship between social influences inherent in the context of forensic document examination (e.g. information about prior examination outcome) on the outcomes of document examination.	Department of Justice, National Institute of Justice/Kentucky State University	DAHIN,VERONICA G.		64,030	10/31/2012
Logistics and Operations		UNR		HISTORIC RES SURVEY E 4TH STR	A Planning Study centered on a modified survey of the 4th St./Prater Way corridor between Lake St. and El Rancho Dr. will be conducted and the findings reported to the Regional Transportation Commission for use in future planning efforts.	Washoe County Regional Transportation Commission	BASSETT,SCOTT D.		5,000	4/1/2012
Logistics and Operations		UNR		GALENA CREEK BRIDGE	Add a multiple accelerometers along the superstructure to measure the performance of the bridge over time due to day-to-day traffic.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	SANDERS,DAVID H.		307,586	12/31/2012
Logistics and Operations		UNR		HYBRID MEMBRANE DESALINATION	Evaluate the effect of sand additive on skid resistance of road sealer.	Colorado School of Mines	CHILDRESS,AMY E.		120,134	12/31/2012
Logistics and Operations		UNR		TRAINING AND R&D PROGRAM	Cooperative program of training and research and development between the Pavements/Materials Program and the Paramount Petroleum Co.	Paramount Petroleum Company	SEBAALY,PETER E.		250,000	6/30/2014

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

LOGISTICS & OPERATIONS SECTOR

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Logistics and Operations		UNR		LIVE LOAD EFFECT ON BRIDGES	Study the influence of live load on the seismic response of highway bridge.	California Department of Transportation	BUCKLE, IAN G.		310,875	10/31/2012
Logistics and Operations		UNR		UNBONDED PRESTRESSED COLUMNS	Test two columns to develop details for accelerated bridge construction using unbounded tendons.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	SANDERS, DAVID H.		198,166	8/31/2012
Logistics and Operations		UNR		GUIDELINES/ROUNDABOUTS IN NV	Study the safety aspects of roundabouts and develop guidelines.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	TIAN, ZONG		100,000	6/30/2012
Logistics and Operations		UNR		POST-EARTHQUAKE BRIDGE DAMAGE	Develop a decision tree for rapid assessment and repair of earthquake-damaged concrete bridges.	California Department of Transportation	SAIDI, MEHDI		151,952	6/30/2012
Logistics and Operations		UNR	UNLV; UC-SAN DIEGO	MARKED & UNMARKED CROSSWALKS	Study the safety aspects of marked and unmarked crosswalks and develop guidelines.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	TIAN, ZONG		160,000	6/30/2012
Logistics and Operations		UNR		ACCELERATED BRIDGE CONSTRUCTION	Develop connections for precast bridge columns built in areas of high seismicity.	California Department of Transportation	SAIDI, MEHDI		307,815	12/31/2012
Logistics and Operations		UNR		TRAFFIC SIGNAL OPERATIONS	Assist Iteris in the field fine-tuning of proposed coordination timings at approximately 150 signalized intersections in Washoe County.	Iteris Incorporated	TIAN, ZONG		35,200	4/16/2012
Logistics and Operations		UNR		SIGNAL TIMING BASED ON TRAFFIC	Develop strategies for coordinating traffic signals under varying traffic demands and inclement weather conditions.	State of Nevada, Department of Transportation/Nevada System of Higher Education	TIAN, ZONG		61,695	6/30/2012
Logistics and Operations		UNR	Univ of Houston; Univ of Missouri	FRACTURED COLUMN REPAIR	Develop methods to repair and restore earthquake damaged bridge columns with fractured bars.	California Department of Transportation	SAIDI, MEHDI		126,742	5/31/2013
Logistics and Operations		UNR		SEISMIC FRAGILITY OF BRIDGES	Calibration of Probabilistic Damage Control Approach (PDCA) for Seismic Design of Bridges.	California Department of Transportation	SAIDI, MEHDI		142,316	5/31/2013
Logistics and Operations		UNR		SEISMIC STUDIES OF COUPLERS	Test and analyze the seismic response of routed couplers used in bridge columns.	California Department of Transportation	SAIDI, MEHDI		100,000	5/31/2012
Logistics and Operations		UNR		PIPE PIN HINGES AT COLUMN BASE	Calibration of Probabilistic Damage Control Approach (PDCA) for Seismic Design of Bridges.	California Department of Transportation	SAIDI, MEHDI		187,883	5/31/2013
Logistics and Operations		UNR		BRIDGE DEFLECTION	Study bridge deflection variation starting from the time of construction and develop/verify methods to estimate the deflection over time.	California Department of Transportation	SAIDI, MEHDI		300,000	6/1/2014
Logistics and Operations		UNR		PAVEMENT DESIGN & MATL RSRCH	Identify the most effective pavement design and materials technologies techniques for pavements throughout Nevada.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	SEBAALY, PETER E.		150,000	6/30/2013
Logistics and Operations		UNR		PAVEMENT PREVENTIVE MAINT	Identify the most effective preventive maintenance techniques for pavements throughout Nevada.	State of Nevada/Nevada System of Higher Education, University of Nevada, Las Vegas	SEBAALY, PETER E.		175,000	6/30/2013
Logistics and Operations		UNR		RTC TRAFFIC	Provide technical support for RTC on various traffic engineering studies.	Washoe County Regional Transportation Commission	TIAN, ZONG		150,000	6/30/2013
Logistics and Operations		UNR		TESTING OF ISOLATED STRUCTURE	Assemble and test a 5-story moment frame building on elastomeric isolation bearing under large ground motions at the E-Defense shake table.	Nuclear Regulatory Council	RYAN, KERI L.	RONALD I MAYES	155,471	8/29/2012
Logistics and Operations		UNR		NIED-TESTING ISOLATED STRUCTURE	Assemble and test a 5-story moment frame building on elastomeric isolation bearing under large ground motions at the E-Defense shake table.	Nuclear Regulatory Council	RYAN, KERI L.		124,992	8/29/2012
TOTAL									25,140,345	

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

AGRICULTURE/FINANCIAL ENTERPRISES SECTOR

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PRIMARY INDUSTRY SECTOR (1)	SECOND INDUSTRY SECTOR (2)	NSHE INSTITUTION	SUBGRANT TO/ INSTITUTION	SPONSORED PROJECT TITLE	SPONSORED PROJECT DESCRIPTION	FUNDING AGENCY	PRINCIPAL INVESTIGATOR	OTHER COLLABORATORS (e.g. industry)	SUPPORTING FUNDS	GRANT EXPIRATION DATE (mm/dd/yy)
Agriculture/ Financial Enterprises		UNLV		New Treatments for American Foulbrood	Honey bee pollination is crucial to ensuring sustainable food supplies worldwide, yet honey bees abundance is decreasing worldwide due to a variety of pests and diseases. American foulbrood is a larval honey bee disease caused by the spore forming bacteria <i>Paenibacillus larvae</i> . In response to program area priority one to understand the environmental and biological processes that affect the abundance and spread of agriculturally important insects, we propose to use several approaches alone and in combination to produce potential treatments for the disease by taking advantage of the microbe's biology and that of the bees themselves to attach the microbe and prophylactically protect the larvae. We will identify compounds that inhibit germination and identify hemolymph antimicrobial peptides differentially expressed in older larvae and adult bees that are immune to the disease to inhibit active microbial cells and protect susceptible larvae. American foulbrood is typically highly regulated requiring the use of confirmatory diagnostics and often resulting in forced incineration of the bees and equipment making it a costly disease. The research proposed combines several routes of control to produce treatments that can protect bees as well as remove the infectious spores from the hive without the risk of resistance posed by current antibiotic treatments or contamination of the hive and its products.	U.S. Department of Agriculture	Elekonich, Michelle		333,276	1/31/2014
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-11	Provide media relations support, public outreach, event planning and conference promotion and outreach for the overall Walker Lake Research program.	Department of the Interior, Bureau of Reclamation	TORS,JANE F.		399,112	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-12	Support a legal review team's efforts in evaluating potential water rights acquisitions under consideration by the Walker Lake program's acquisition team.	Department of the Interior, Bureau of Reclamation	RICHARDSON,JAMES T.		460,448	3/15/2016
Agriculture/ Financial Enterprises		UNR		GBCESU: FUEL AREAS/KLAMATH	Archaeological survey of fuel management project areas, managing and processing GPS data collecting during field surveys.	Department of the Interior, National Park Service	HARDESTY,DONALD L.		37,784	2/28/2015
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-4A	Identify the economic potential and cultural practices necessary for low-water-use crops with the aim of minimizing water use, soil erosion and evaporation from soil surfaces. Evaluate methods to re-establish desirable vegetation in areas affected by changing agricultural practices and to anticipate vegetation responses under scenarios identified through modeling efforts.	Department of the Interior, Bureau of Reclamation	LEGER,ELIZABETH A.		583,755	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-2B	Develop a geographic information systems (GIS) framework for linking water rights with water distribution networks and points of diversion for the Walker Basin for use to assess how water and land acquisitions will affect the basin system. he Walker River and its tributaries.	Department of the Interior, Bureau of Reclamation	BASSETT,SCOTT D.		65,121	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ALT AG #4	Establish empirical relationships between yield, environmental temperature, water use efficiencies, soil moisture content and irrigation treatment to elucidate regional ecological mechanisms and develop numerical models for optimizing crop selection, water delivery and irrigation scheduling.	Department of the Interior/National Fish & Wildlife Foundation	TYLER,SCOTT W.		220,488	12/31/2013
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-8	Determine the most economically effective use of water on agricultural lands and provide producers with an estimate of the potential amount of water rights they may be able to offer to the market for lease or sale.	Department of the Interior, Bureau of Reclamation	CURTIS,KYNDA R.		347,099	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-3	Provide an overview of the political and historical context in which the acquisition of land and associated water rights for ecosystem restoration in the Walker River system occurs.	Department of the Interior, Bureau of Reclamation	WILDS,LEAH J.		162,507	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-1	Estimate the economic impacts of acquisition of water rights and changes in agricultural production and land use. Also, formulate economic development actions to mitigate the projected economic and fiscal dislocations.	Department of the Interior, Bureau of Reclamation	MALES,SAMUEL		222,538	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 3	Fund Western Development and Storage, LLC to provide independent, objective advice to NSHE on the acquisition of land and water, and water in the Walker River Basin, Nevada.	Department of the Interior, Bureau of Reclamation	COLLOPY,MICHAEL W.		3,248,504	3/15/2016
Agriculture/ Financial Enterprises		UNR	NRDC; Rural NV Devel Corp	WALKER BASIN II ECON DEV #1	Focus on economic development to enhance the transition to alternative crops. Develop Mission Statement, Guidelines and Procedures for Resource Pool. Establish a "foundation" for broad-based economic development efforts within the Walker Basin and economic development support through training and One-on-One business counseling.	Department of the Interior/National Fish & Wildlife Foundation	BARTHOLET,RICHARD D.		482,493	12/31/2013
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-7B	Develop a set of recommendations to minimize further sediment and salt loading to Walker Lake and degradation to the lower Walker River under increased water flows. These recommendations will be made available to land and water managers to assess potential impacts resulting from variations in flow, water quality and channel geometry on the transport of sediments and on the flow capacity of the Walker River.	Department of the Interior, Bureau of Reclamation	HOUSE,PETER K.		18,494	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE MASTER AGREEMENT	Study of desert island lakes as part of the Walker Lake Research Project.	Department of the Interior, Bureau of Reclamation	COLLOPY,MICHAEL W.		0	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-10	Provide administrative and budgetary support to the Walker Lake Research program, and support development and maintenance of the program's website and outreach programs.	Department of the Interior, Bureau of Reclamation	COLLOPY,MICHAEL W.		5,753,919	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-2	Develop a decision-support tool to evaluate the effectiveness of proposed acquisitions of water rights from willing sellers to increase water delivery to Walker Lake.	Department of the Interior, Bureau of Reclamation	TYLER,SCOTT W.		555,787	3/15/2016
Agriculture/ Financial Enterprises		UNR	DRI	WALKER BASIN II PROJ ADMIN	Provide administrative and budgetary support to the Walker Basin Research program, as well as support for development and maintenance of the program's website and outreach programs.	Department of the Interior/National Fish & Wildlife Foundation	COLLOPY,MICHAEL W.		2,114,257	12/31/2013
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-5	Assess soil and vegetation responses to changes in water application and use, assess impacts of changes in water table, wind erosion, nutrient cycling, and salt accumulation and provide information to aid managers in the preservation of air and water quality adjacent to and within waterways and storage sheds.	Department of the Interior, Bureau of Reclamation	MILLER,WATKINS W.		902,901	3/15/2016
Agriculture/ Financial Enterprises		UNR		REESTABLISHING PLANT DIVERSITY	Improve crested wheatgrass control methods, seed mix selection, seedling technology and equipment, and monitoring methods.	Department of Agriculture, Forest Service	MCADOO,JAMES K.		112,442	6/30/2014
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ALT AG #3	Quantify actual environmental temperature and soil moisture levels for selected high yield crops using novel technological methods to determine inter-annual crop water use efficiencies as a function of irrigation level.	Department of the Interior/National Fish & Wildlife Foundation	DAVISON,JASON C.	HENDRICK UPHOLSTERY	170,386	12/31/2013
Agriculture/ Financial Enterprises		UNR		ENVIRO IMPACTS OF CONSERVATION	Produce national and regional assessments of environmental benefits of conservation programs to support policy decision and program implementation on crop and grazing lands by the Natural Resources Conservation Service (NRCS).	Department of Agriculture, Agricultural Research Service	NARAYANAN,RANGESAN		210,000	8/30/2012

MAPPING OF NEVADA SYSTEM OF HIGHER EDUCATION SPONSORED PROJECTS TO IDENTIFIED INDUSTRY SECTORS*
UNLV, UNR AND DRI

AGRICULTURE/FINANCIAL ENTERPRISES SECTOR

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Agriculture/ Financial Enterprises		UNR	Nat'l Ctr for Food & Ag Policy	TURKMENISTAN EXCHANGE PROGRAM	Fund Turkmenistan agricultural economists to visit UNR for training in Western-style concepts and for UNR faculty to visit Turkmenistan in preparation of the agricultural economists. In addition, high officials from Turkmenistan will visit UNR and Washington, DC.	Department of Agriculture, Foreign Agricultural Service	PARDINI, RONALD S.		165,974	8/19/2013
Agriculture/ Financial Enterprises		UNR		CA2+ PUMPS/PLANT POLLEN GROWTH	Determine the developmental defects that account for the partial sterility on <i>aca9(-/-)</i> plants. Determine the regulatory features of ACA9 that are critical to its function in fertilization. Identify intragenic and extragenic mutations that modify the functions of ACA9.	Department of Health & Human Services, National Institutes of Health, National Institute of General Medical Sciences	HARPER, JEFFREY F.		1,081,565	8/31/2012
Agriculture/ Financial Enterprises		UNR		GEPR:FUNCTIONAL GENOMICS...	Identify mechanisms regulating bud endodormancy using a well-characterized grape genetic system and a functional genomics approach using transcript (<i>Vitis</i> GeneChip), protein (2-D PAGE), and metabolite (GC-MS and LD-MS) profiling.	National Science Foundation/South Dakota State University	CRAMER, GRANT R.		892,662	7/31/2012
Agriculture/ Financial Enterprises		UNR		RCN: GRAPE FUNCTIONAL GENOMICS	Develop functional genomic resources in grape to improve production efficiency and quality, to study developmental processes and environmental impacts on grape and wine quality and the associated health benefits of consuming grape berries and wine products.	National Science Foundation	CRAMER, GRANT R.	MARIO PEZZOTTI	517,220	8/31/2013
Agriculture/ Financial Enterprises		UNR		POLYMER-PROTEIN IN RUBBER LTX	Advance the fundamental knowledge regarding structure/property relationships in natural rubber, especially the role of naturally-occurring, non-rubber constituents in creating and controlling the nanostructured features that are believed to be responsible for the unique properties of natural rubber derived from <i>Hevea brasiliensis</i> .	Department of Agriculture, Agricultural Research Service	SHINTANI, DAVID K.		85,000	9/15/2012
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-9	Estimate the economic impacts of the acquisition of water rights and changes in agricultural production and land use. Formulate economic development actions to mitigate the projected economic and fiscal dislocations that result in sustainable economic development actions and related public policy alternatives.	Department of the Interior, Bureau of Reclamation	MALES, SAMUEL		259,105	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-14	Establish and promote Walker River Watershed Workdays within local communities and in Lyon, Mineral, Walker River Tribal and Mono county schools system.	Department of the Interior, Bureau of Reclamation	COLLOPY, MICHAEL W.		66,541	3/15/2016
Agriculture/ Financial Enterprises		UNR		RANGELAND FIRES/GRAZING SYS	Model estimated costs of current post-fire survival strategies and alternative management strategies for fire reduction and range improvement will be verified with rancher survey data. With these models, ranch level responses to rangeland fires and rangeland fire suppression can be transmitted to regional economic impacts.	Department of Agriculture, National Institute of Food & Agriculture	HARRIS, THOMAS R.		31,410	7/14/2012
Agriculture/ Financial Enterprises		UNR	U of MO, Columbia	FOOD & AG POLICY RESEARCH INST	Nevada is a partner with the University of Missouri & Iowa State University in the development & operation of a large scale international policy modeling system focusing on agricultural commodities.	Department of Agriculture, National Institute of Food & Agriculture	HARRIS, THOMAS R.		316,427	8/31/2012
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ECON DEV #2	Focus on economic development that will enhance the transition to alternative crops. Establish a "foundation" for broad-based economic development efforts within the Walker Basin and economic development support through training and One-on-One business counseling.	Department of the Interior/National Fish & Wildlife Foundation	HARRIS, THOMAS R.	BEHAVIOR RESEARCH CENTER	55,431	12/31/2013
Agriculture/ Financial Enterprises		UNR		RANGELAND FIRES/GRAZING SYS	Model estimated costs of current post-fire survival strategies and alternative management strategies for fire reduction and range improvement will be verified with rancher survey data. With these models, ranch level responses to rangeland fires and rangeland fire suppression can be transmitted to regional economic impacts.	Department of Agriculture, National Institute of Food & Agriculture	HARRIS, THOMAS R.		30,710	6/30/2012
Agriculture/ Financial Enterprises		UNR		BIOSECURITY/NV CATTLE RANCHERS	Derive factors to increase adoption of the trichomoniasis vaccine or alternative public land management scenarios to control trichomoniasis. Results of the representative ranch simulation model will provide information on potential adoption by public range producers both under average and less favorable conditions.	Department of Agriculture, National Institute of Food & Agriculture	HARRIS, THOMAS R.		45,253	6/30/2012
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-4B	Identify the economic potential and cultural practices necessary for low-water-use crops with the aim of minimizing water use, soil erosion and evaporation from soil surfaces. Evaluate methods to re-establish desirable vegetation in areas affected by changing agricultural practices and to anticipate vegetation responses under scenarios identified through modeling efforts.	Department of the Interior, Bureau of Reclamation	DAVISON, JASON C.		277,754	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-6	Evaluate and establish a benchmark for the environmental and ecological health of Walker Lake and Walker River. Decision tools will be developed to analyze the efficacy of different water acquisitions for improving future ecological integrity of Walker Lake and Walker River.	Department of the Interior, Bureau of Reclamation	CHANDRA, SUDEEP		472,187	3/15/2016
Agriculture/ Financial Enterprises		UNR		WALKER LAKE-TASK 2-7A	Develop a set of recommendations for land and water managers to minimize further sediment and salt loading to Walker Lake and degradation to the lower Walker River and assess potential impacts resulting from variations in flow, water quality and channel geometry.	Department of the Interior, Bureau of Reclamation	DENNETT, KEITH E.		193,014	3/15/2016
Agriculture/ Financial Enterprises		UNR		WATER & NOTROGEN/CHEATGRASS	Focus on the competitive ability of native species against cheat grass and investigate if the differences in competitive ability among different native plants are related to differences in the ability of the natives to acquire water or nitrogen from the soil.	Department of Agriculture, National Institute of Food & Agriculture	NOWAK, ROBERT S.		46,933	7/14/2012
Agriculture/ Financial Enterprises		UNR		WILDLIFE INDICATORS/LIVESTOCK	Understand ecological and biological factors affecting wildlife and livestock in this region and to determine if the source is toxicity of heavy metals possibly from past mining in the area, some ecosystem level change, such as acidification, that may be creating a deficiency in trace minerals in soils, or a pathogen that may be causing deleterious effects on wildlife in the area.	Department of Agriculture, National Institute of Food & Agriculture	STEWART, KELLEY M.		149,811	12/31/2012
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ALT AG #1	Quantify, under a range of irrigation scenarios, the above ground biomass and grain yields of candidate species for use in arid environments.	Department of the Interior/National Fish & Wildlife Foundation	MILLER, WATKINS W.		253,488	12/31/2013
Agriculture/ Financial Enterprises		UNR		WALKER BASIN II ALT AG #2	Implement new studies on seeding plants directly into existing alfalfa fields for purposes of land revegetation.	Department of the Interior/National Fish & Wildlife Foundation	LEGER, ELIZABETH A.		143,138	12/31/2013
Agriculture/ Financial Enterprises		UNR		SHRUBSTEP VEGETATION STRUCTURE	Determine the relationship between vegetation variables near Sage Grouse nests and the success of those nests to ensure that management of habitat is appropriate for Sage Grouse conservation in Nevada, thereby improving one of the criteria land managers use for grazing management.	Department of Agriculture, National Institute of Food & Agriculture	SEDINGER, JAMES S.		49,520	6/30/2012
Agriculture/ Financial Enterprises		UNR		CHEATGRASS INVADED SYSTEMS	Measure seedling establishment of four additional native perennial grass species and address whether these species are evolving to become more competitive with cheat grass, and develop and use molecular method to determine rates of outcrossing within these native grasses.	Department of Agriculture, National Institute of Food & Agriculture	LEGER, ELIZABETH A.		58,564	6/30/2012
Agriculture/ Financial Enterprises		UNR		EFFECT OF GRAZING/MODOC PLAT	Provide essential monitoring information to inform grazing management of <i>O. tenuis</i> , and to further elucidate the complex interactions among climate change, grazing, and hydroecology of vernal pool plant communities on the Modoc Plateau.	Department of Agriculture, Forest Service	WEISBERG, PETER J.		51,562	6/30/2012
Agriculture/ Financial Enterprises		UNR		CHEATGRASS DIE-OFFS	Mark areas of current and historical cheat grass die offs, and investigate causes and consequences of these die offs in the Great Basin.	Department of Agriculture, Forest Service	LEGER, ELIZABETH A., WEISBERG, PETER J.		106,444	12/15/2015

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Agriculture/ Financial Enterprises		UNR		CHEATGRASS DOMINATED SITES	Investigate the efficacy of reducing cheat grass fuel load carryover using fall sequenced livestock grazing (cattle and sheep). Investigate how fall cattle grazing and subsequent spring grazing with sheep, may affect perennial plant species that occur within cheat grass dominated areas. Also, measure animal condition and performance to determine potential effects on animal health.	Department of Agriculture, National Institute of Food & Agriculture	PERRYMAN,BARRY L.		34,560	7/14/2012
Agriculture/ Financial Enterprises		UNR		AGRICULTURAL LITERACY IN ELEM	We propose to develop an agriculture literacy internship which will offer University of Nevada Reno undergraduate students, across majors, the opportunity to enhance their own education.	Department of Agriculture, National Institute of Food & Agriculture	THAIN,DAVID S.		100,473	8/31/2012
Agriculture/ Financial Enterprises		UNR		UNDERGRADS INTERNSHIP OPP-MSFL	Provide work experiences for undergraduate students in the College of Agriculture, Biotechnology and Natural Resources in the area of General Agricultural Practices.	Nevada Agricultural Foundation	KINDRED,BOWEN D.		2,700	8/30/2012
Agriculture/ Financial Enterprises		UNR		DROUGHT STILBENE METABOLISM Y2	Dissect out the components of the regulatory mechanisms modulating grape berry metabolism in general and stilbene biosynthesis in particular in response to drought stress.	Binational Agricultural Research & Development Fund	CRAMER,GRANT R.		117,000	11/30/2012
Agriculture/ Financial Enterprises		UNR		INCorp AG ED ELEM INTERNSHIP	Creates an internship as a partnership between the University, Ag in the Classroom and K-12 education to address educational needs of undergraduates at the University level and agriculture literacy needs at the elementary grade level.	National Rangeland Resources Commission	THAIN,DAVID S.		3,000	6/30/2012
TOTAL									22,008,758	