Title	Effects of Antioxidant Application and Retail Display on Sensory, Shelf-Life, Oxidative and Microbial Stability of Beef Striploin Steaks
Description	Using these funds faculty members engaged an undergraduate student in conducting laboratory analysis of meat products. Funds were also used for travel and to purchase materials and supplies to support this research.
Purpose/Intent	To determine the effects of antioxidant application and retail display on sensory, shelf-life, oxidative and microbial stability of beef striploin steaks.
What makes this project a good investment for the state or institution?	Results from this project will be presented in manuscript format and submitted for publication in a peer reviewed journal. Additionally, the research provided preliminary data for future related projects.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 1,141
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 4,880
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 6,021**

Title	Ecology of West Texas Wildlife
Description	Funds were used to purchase standard radio-telemetry transmitters and related equipment to examine the activities of smaller mammals in the wild, including certain species of skunks and ringtails.
Purpose/Intent	To secure small equipment to support graduate and undergraduate research on wildlife species.
What makes this project a good investment for the state or institution?	This research is on west Texas carnivores and our understanding of this group of mammals is important basic biological research. This research involved undergraduate and graduate student assistants, and the results will be submitted for publication in peer-reviewed journals.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 8,867
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 8,867**

Title	Optimizing Conditions for Visualizing the Development of a Dopamine-Producing Neuron
Description	With this funding a faculty member and an undergraduate assistant purchased supplies, collected Drosophila (fruit fly) embryos, and performed basic research and imaging on the Drosophila embryos.
Purpose/Intent	To optimize conditions needed to characterize the role of the gene tailup (tup) in controlling the formation of a dopamine-producing midline cell.
What makes this project a good investment for the state or institution?	This project establishes a new line of inquiry at ASU, provides an undergraduate student with valuable research experience, and will result in a peer reviewed publication. Additionally, the researcher plans to submit funding proposals to federal agencies that support basic research.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 4,679
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,982
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 6,661**

Title	Are Exports and Imports Cointegrated? Evidence from Nine MENA Countries
Description	Using these funds a faculty member completed a comprehensive review of the relevant literature; collected, analyzed, checked, and transformed data for use in the estimation process; and conducted appropriate statistical tests of the data related to imports and exports in the MENA region.
Purpose/Intent	To investigate whether there is a long-run relationship (cointegration) between exports and imports for nine MENA (Middle East and North Africa) Countries.
What makes this project a good investment for the state or institution?	The completed manuscript resulting from this research will be submitted to a peer reviewed economic journal, which will enhance ASU's and the College of Business' accreditation efforts, and the study involved students in the analysis of data.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 4,218
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 370
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,588**

Title	Optical and Electrical Characterization of Thin Film Materials: Heterostructures and Porous Materials
Description	With this funding a faculty member mentored two undergraduate students in two areas: ellipsometric investigation of Gadolinium Gallium Oxide multilayered structures, and development of a reproducible synthesis method for the production of porous silicon thin films.
Purpose/Intent	To support two students in synthesizing and characterizing porous silicon thin films.
What makes this project a good investment for the state or institution?	The benefits of this project were twofold: 1) it provided advanced undergraduate students with the opportunity to engage in high level materials science research, and 2) it resulted in a manuscript ("Spectroscopic Ellipsometry of Gadolinium Gallium Oxide Layers") to be submitted to an academic journal this spring.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 7,310
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,057
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 8,367**

Title	Carried forward	
Description	Funds carried forward to FY11	
Purpose/Intent	n/a	
What makes this project a good investment for the state or institution?	n/a	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 7,128
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 7,128**

Title	Machine Service Contract Agreements	
Description	Service Agreements for Electron Microscope, X-ray Flourescence Spectrophotometer and the GCMS system	
Purpose/Intent	To ensure that the equipment remains in working order to be used on externally funded ongoing research projects.	
What makes this project a good investment for the state or institution?	To support the current and potential future Lamar projects and to prevent equipment damage due to inactivity if it is broken.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 25,203
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 25,203**

Title	Air (HONO/Ozone) and Water (Atrazine/Cefquinome)Research
Description	Parts/Accessories for measuring concentrations in ambient air and Atrazine/Cefquinome (Pesticide/Antibiotices water pollutants) concentrations in water including an extraction system, HPLC Columns, mass flow controllers, pumps, denuders, ozone lamps, chemicals and gases.
Purpose/Intent	To successfully complete the proposed tasks in the THWRC project "Development of Infrastructure for HONO Measurements", TARC project "Green Construction Materials for Air-borne Pollutants Removal" and USDA/CREES project "Field Sampling/Identification of Pesticide/Pharmaceutical-Contaminated Water.
What makes this project a good investment for the state or institution?	Supports current instrument infrastructure needs of grants and will support future grant efforts in environment and energy areas. Equipment was partially funded with grant funds.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 3,959
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 3,959**

Title	Computer	
Description	Dell Latitude e5400	
Purpose/Intent	Computers needed to conduct NSF Career Grant " An effective Integration of Research and Education on High-Speed and Energy-Efficient Interconneces for Multi-Core and Multi-Thread Systems"	
What makes this project a good investment for the state or institution?	Infrastructure needed for use in a NSF Career grant of $400,000.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 2,472
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 2,472**

Title	The Wind Alliance Membership	
Description	Two year membership in University of Houston Wind Alliance	
Purpose/Intent	To participate in the consortium of Universities seeking funding for wind energy projects	
What makes this project a good investment for the state or institution?	Enables the University to participate in Research for wind energy	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 3,000
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 3,000**

Title	2 MHz Precision LCR Meter	
Description	Low Frequency Dielectrical Constant Measurement	
Purpose/Intent	This will provide the PI to opportunity to explore the potential energy storage and antenna applications of the polymer nanocomposites	
What makes this project a good investment for the state or institution?	Provides the PI with the facility to explore the new functions of the polymer nanocomposites which will enrich our program and enable us to apply for grant funding and attract more students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 14,095
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 14,095**

Title	Bell Gaussmeter	
Description	Magnetic field test device	
Purpose/Intent	This device will be used to test the strength of the magnetic field. This will be used for the sensor application.	
What makes this project a good investment for the state or institution?	This will provide a plateau for the students to learn the GMR devices and the fundamental device to test the properties of the materials. The results will be used for proposals to Dept. of Energy and NSF.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 5,661
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,661**

Title	Recovery of the Coastal Ecosystem of southern Jefferson County, TX from the Storm of Hurricane Ike
Description	Required matching for this grant including Traps, Havaharts and student support
Purpose/Intent	The grant from the Texas General Land Office is to study the recovery of microbial, plant, amphibian, reptilian, mammalian and avian communities along the coast.
What makes this project a good investment for the state or institution?	The rate of recovery of the animal and plant communities in the surge zone is an important component of the management of coastal ecosystems and the recovery of local communities.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 9,366
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,366**

Title	Research Symposium Support	
Description	Honoria paid to three presenters	
Purpose/Intent	Symposium is held each year for faculty to present the finding of their research to others in the field and as a tool for improvement of teachers in the K-12	
What makes this project a good investment for the state or institution?	Participants and presenters can share results and collaborate on future research. Assists in teacher professional development for our Teacher Quality Grant participants.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 3,000
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 3,000**

Title	Hydraulic Lab Press	
Description	Hydraulic laboratory press with safety shield and heated platens used in polymer research	
Purpose/Intent	The machine has the potential for the group to generate more important results for publication in the field and attract outside funding in the nanostructual materials area.	
What makes this project a good investment for the state or institution?	Fundamental Infrastructure used in current and future research grants.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 7,617
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 7,617**

Title	Salaries for Sponsored Programs Office	
Description	Salaries for Sponsored Programs Office	
Purpose/Intent	Assist faculty with the identification, preparation and submission of grants for external funding.	
What makes this project a good investment for the state or institution?	Enables University to get more research funding.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 363,518
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 363,518**

Title	Accessing funding opportunities
Description	Diane Spiller traveled to attend a program sponsored by the Grants Resource Center (GRC) of the American Association of State Colleges and Universities. The GRC is committed to strengthening the competitive edge of colleges and university faculty members and administrators pursuing sponsored programs funding from public and private sources.
Purpose/Intent	The GRC Offers access to timely and actionable information on funding opportunities, promoting networking among sponsored programs professionals, GRC supports the realization of institutional goals and program development priorities.
What makes this project a good investment for the state or institution?	Access to potential funding opportunities and information about best practices for a grants office is essential for MSU to close gaps in external funding

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 999
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 999**

Title	Equipping the Office of Sponsored Programs
Description	The Graduate School, including the Office of Sponsored Programs (OSP) is located, purchased a copier/fax/printer/scanner in order to enhance operations. This equipment allows our staff to more efficiently copy, scan, fax, and print grant proposals and post award reports.
Purpose/Intent	This equipment was essential for enhancing the infrastructure for research and development at MSU. Previously, the OSP had only a flat bed copier/printer making the OSP inefficient and unable to support investigators in a timely manner.
What makes this project a good investment for the state or institution?	Access to potential funding opportunities is essential for MSU to close gaps in external funding

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 2,329
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 2,329**

Title	Supporting artistic research and development
Description	Steve Hilton traveled to China and Japan where he worked closely with local and American artists to complete a major body of work. He was researching the use of new ceramic materials. This new material, bamboo, required unanticipated expense such as a chain saw and a rental truck for transporting the material to the studio.
Purpose/Intent	Professor Hilton is a productive researcher who continues to collaborate with our McCoy School of Engineering to harvest energy for firing and to explore new media for ceramic works. His cross-disciplinary collaboration involves not only faculty but also undergraduate students and, thus, enhances the infrastructure for research here at MSU.
What makes this project a good investment for the state or institution?	A well equipped Office of Sponsored Programs enhances the research and development infrastructure of MSU

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 818
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 818**

Title	Enabling digital data access
Description	Don Maxwell has collected important recorded material documenting the life and work of Cornelius Reid. Reid has authored five books on vocal pedagogy as well as numerous academic articles. In effect, Professor Maxwell is creating the Cornelius L. Reid Archive. This archive is currently available only to scholars who travel to MSU. However, Maxwell plans to make various recordings and materials available digitally and, thus, has created CDs with key materials on them.
Purpose/Intent	This project, the creation of the Cornelius L. Reid Archive, enhances MSU's research infrastructure significantly by supplying digital research materials related to vocal pedagogy.
What makes this project a good investment for the state or institution?	Providing data access to other researchers in Texas and elsewhere puts MSU in the forefront of research and development of vocal pedagogy

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 106
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 106**

Title	Mechanistic Movement Models of Thermoregulating Ectotherms
Description	To create and analyze mathematical models for the movement of thermoregulating ectotherms
Purpose/Intent	To show why an ectotherm prefers a body temperature (or a range of body temperatures) which is ecologically but not physiologically optimal
What makes this project a good investment for the state or institution?	The models proposed may increase the understanding thermoregulatory behavior as it relates to global changes in environmental temperatures

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 5,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,000**

Title	Distributed Co-clustering Algorithm	
Description	To make further advances in co-clustering's theoretical maturity and usefulness to be applicable to real-life problem domains by enhancing its scalability	
Purpose/Intent	To develop a meta-parallel co-clustering algorithm so as to further enhance the adaptability, applicability, usability, and scalability	
What makes this project a good investment for the state or institution?	The resulting software will be publicly available at the university's webpage	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 5,000
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,000**

Title	Social etiology of Obesity among US Immigrants	
Description	To examine the pattern of uneven distribution of immigrant obesity in the broader spectrum of nativity, acculturation, and geographic crossroads	
Purpose/Intent	To derive empirical implications for different immigrant subgroups and provide effective and culturally appropriate interventions at various levels to reduce obesity among disadvantaged populations	
What makes this project a good investment for the state or institution?	Obesity is an epidemic health crisis in the US and immigrants are often defined as one of the most vulnerable groups at health risk	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 5,000
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,000**

Title	College Experiences and Political Engagement	
Description	To conduct a survey of incoming freshmen and track the effect of college on political attitudes and behaviors	
Purpose/Intent	To investigate the impact of the college experience on youth political engagement and participation	
What makes this project a good investment for the state or institution?	By establishing the existence of such impacts, we will be better able to understand how they	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 3,800
	Operating Expenses	$ 1,200
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,000**

Title	Gang Membership and Crime Victimization	
Description	To examine the relationship between gang status and violent victimization, using a sample of 909 juvenile arrestees recently booked in Arizona	
Purpose/Intent	To investigate how gangs influence members' risk of victimization	
What makes this project a good investment for the state or institution?	Understanding the victimization experiences of gang members will increase the knowledge about statistics, gangs, and crime victims	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 5,000
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,000**

Title	Identification of a p53-like protein in Chlamydomonas reinhardtii
Description	To identify a p53-like protein in Chlamydomonas reinhardtii, a unicellular eukaryote
Purpose/Intent	To better understand when and why p53-mediated programmed cell death (PCD) evolved
What makes this project a good investment for the state or institution?	A better understanding of p53-mediated pathways in all eukaryotes, will ultimately lead to better methods of cancer intervention and treatment

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 2,000
Operating Expenses	$ 3,000
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,000**

Title	The effects of Therapeutic Instrumental Music Performance (TIMP) in Physical Rehabilitation	
Description	To compare effects of non-musically facilitated exercise, with TIMP on endurance, self-perceived fatigue and exertion of hospitalized patients in physical rehabilitation	
Purpose/Intent	To investigate the use of musical instruments as a visual-auditory target and a source of rhythmic auditory feedback of enhancing functional movement exercises of inpatients in physical rehabilitation	
What makes this project a good investment for the state or institution?	The findings will help patients with physical impairments due to neurologic and/or orthopedic disorders/surgeries	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 4,080
	Operating Expenses	$ 920
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,000**

Title	Antimicrobial Resistance in Salmonella	
Description	To determine the phenotypic and genotypic antimicrobial resistance profiles of S. Typhimurium	
Purpose/Intent	To characterize antimicrobial resistance in a number of Salmonella enterica serovar Typhimurium isolates recently isolated from a variety of production animal sources	
What makes this project a good investment for the state or institution?	This study will provide vital information concerning the resistance patterns and genes associated with resistance in Salmonella	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 5,000
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,000**

Title	Do HMO Profits Influence their Quality of Care?	
Description	To investigate whether there is a relationship between the profitability of an HMO and the quality of care that its enrollees receive	
Purpose/Intent	To analyze whether the quality of care that HMOs provide is associated with their financial performance	
What makes this project a good investment for the state or institution?	This project may help to identify certain circumstances in which patient well-being is especially at risk	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 5,000
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,000**

Title	Population Genetics and Host Preference of Leafy Mistletoe	
Description	To identify a potential model system in which to study aerial parasitism, the leafy mistletoe Phoradendron serotinum	
Purpose/Intent	This work will complete a large scale project involving one graduate and five undergraduate students	
What makes this project a good investment for the state or institution?	This knowledge will be useful in addressing negative economic impacts of closely related timber-drop parasites	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 5,000
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,000**

Title	Whiteness on the Border: Negotiating the Frontiers of Race, Identity, and Belonging
Description	This book project will examine how Chicanos and Anglo-Americans have constructed, negotiated, and contested concepts of race, identity, and belonging
Purpose/Intent	To trace the development of whiteness through examining literature, film, music, legal discourse, political speeches, and obviously lived experience
What makes this project a good investment for the state or institution?	This publication will be an asset for undergraduate courses in multicultural literature, U.S. ethnic history and more

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 7,734
Operating Expenses	$ 1,465
Staff Benefits	$ 2,320
Capital Expenditures	$ 0
Total	**$ 11,519**

Title	Investigation of Calliphoridae across the 10 ecoregions of Texas
Description	Given the appropriate genetic marker, the amount of genetic variation between and within fly species may be a useful tool for species determination
Purpose/Intent	To establish the range of carrion flies of the 10 ecoregions of Texas and determine the genetic structure of the fly populations using microsatellite markers
What makes this project a good investment for the state or institution?	Through this research, undergraduates will become familiar with the ecoregions of Texas, learn field and curatorial techniques and be immersed in aspects of forensic science

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,920
Operating Expenses	$ 10,000
Staff Benefits	$ 638
Capital Expenditures	$ 0
Total	**$ 12,558**

Title	Secure Routing for Real-Time Media Streaming in MANETs	
Description	To design and run network simulations using network simulators such as NS2; and then to analyze the results using our data analysis program set	
Purpose/Intent	To improve the security level of nodal and network resources in the routing process of Mobile Ad Hoc Networks (MANETs) and to reduce the overhead due to multi-path routing	
What makes this project a good investment for the state or institution?	This research helps satisfying fairness and trust in MANETs via multilateral monitoring	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 12,000
	Operating Expenses	$ 0
	Staff Benefits	$ 3,000
	Capital Expenditures	$ 0
	Total	**$ 15,000**

Title	Role of CtrA during the Cell Cycle of Rhodobacter sphaeroides	
Description	To investigate the role of CtrA during the R. sphaeroides cell cycle	
Purpose/Intent	The objective of cell cycle regulation in R. sphaeroides will help to understand cell cycle control in bacteria with complex genome structure	
What makes this project a good investment for the state or institution?	A better understanding of the regulatory mechanisms of the bacterial cell cycle will greatly aid in the development of new types of antimicrobial agents	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 8,780
	Operating Expenses	$ 3,000
	Staff Benefits	$ 1,734
	Capital Expenditures	$ 0
	Total	**$ 13,514**

Title	Exploring Digital Literacy in a Global Society	
Description	To conduct phase one of three: exploration of successful digital literacy labs around the world	
Purpose/Intent	To better understand how and why selected digital literacy labs are successful	
What makes this project a good investment for the state or institution?	The Digital Literacy Project will bring digital literacy aptitudes and opportunities to developing nations and cultures	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 5,155
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,155**

Title	Democracy and Diversity in Walker County, Texas
Description	To develop a more inclusive and comprehensive history of the region that synthesizes the overlooked or ignored voices of the past with those that are more traditional and familiar
Purpose/Intent	To create a web site which will host and interpret a variety of maps, photographs, news articles, court documents, and other primary sources
What makes this project a good investment for the state or institution?	By revealing a rich local history in Walker County, where Anglo Americans, African Americans, and Hispanics built a common community in often times difficult circumstances

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 11,200
Operating Expenses	$ 0
Staff Benefits	$ 3,000
Capital Expenditures	$ 0
Total	**$ 14,200**

Title	Assessment of Attention to Alternative Romantic Partners
Description	To explore the individual differences in attentiveness using the PI's new scale: active prowling, passive awareness and willful disinterest
Purpose/Intent	To study individual differences in attentiveness and the variable levels of attentive behavior on romantic relationships over time
What makes this project a good investment for the state or institution?	A valid assessment of attention to romantic alternatives promises to be of great benefit to relationship science

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 7,755
Operating Expenses	$ 4,134
Staff Benefits	$ 2,327
Capital Expenditures	$ 0
Total	**$ 14,216**

Title	Instructional Technology Web 2.0 Software in Educational Systems
Description	Involving graduate students under faculty supervision, this project will utilize Web 2.0 technologies to provide the research environment to deliver the results, and to disseminate the results
Purpose/Intent	To utilize Web 2.0 technologies to provide the research environment where graduate students can identify and evaluate the most promising technologies
What makes this project a good investment for the state or institution?	As we move closer to the reality of schools without borders, there is a need to develop a cadre of experienced classroom teachers who are able to incorporate Web 2.0 technologies and adopt the most educationally useful and practical elements

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 15,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 15,000**

Title	Raman Enhancing Nanoarrays for amplifying Weak Signals
Description	To develop novel arrays of noble metal nanoparticles that improve our ability to detect low levels of weakly detectable analytes using laser based Raman spectroscopy
Purpose/Intent	To work towards tailoring these substrates to measure the presence of persistent environmental toxins and the metabolites of toxins that disappear rapidly
What makes this project a good investment for the state or institution?	Sensor based on surface enhanced Raman technologies hold the promise of providing cost effective, field sensors for a wide variety of molecules

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 8,000
Operating Expenses	$ 6,000
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 14,000**

Title	Detecting Illusive Records within the Law Enforcement Database	
Description	To create a Personal Identity Recognition (PIR) system with record linkage techniques that can be applied to eliminate duplicate and/or dirty records from the data base	
Purpose/Intent	To implement methodologies that can be used for detecting false identification	
What makes this project a good investment for the state or institution?	This will be an innovative new information technology system with national application for law enforcement	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 11,224
	Operating Expenses	$ 0
	Staff Benefits	$ 2,167
	Capital Expenditures	$ 0
	Total	**$ 13,391**

Title	Building an Interactive Mini-Lab Training Unit to Promote Alternative Energy
Description	To create a mobile unit that includes all components normally required for a residential installation
Purpose/Intent	To design, build and test an alternative energy educational training module to be used for laboratory sections of alternative energy related courses at SHSU
What makes this project a good investment for the state or institution?	The design will be cost-efficient and lead other colleges to implement similar alternative energy systems

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,375
Operating Expenses	$ 8,390
Staff Benefits	$ 735
Capital Expenditures	$ 0
Total	**$ 13,500**

Title	Faculty Travel 2010	
Description	Faculty Research Projects: College of Arts and Sciences	
Purpose/Intent	To present research at national and international meetings	
What makes this project a good investment for the state or institution?	Increase of visibility of SHSU	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 2,802
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 2,802**

Title	Faculty Travel 2010	
Description	Faculty Research Projects: College of Humanities and Social Sciences	
Purpose/Intent	To present research at national and international meetings	
What makes this project a good investment for the state or institution?	Increase of visibility of SHSU	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 4,941
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 4,941**

Title	Faculty Travel 2010	
Description	Faculty Research Projects: College of Education	
Purpose/Intent	To present research at national and international meetings	
What makes this project a good investment for the state or institution?	Increase of visibility of SHSU	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 2,346
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 2,346**

Title	Faculty Travel 2010	
Description	Faculty Research Projects: College of Criminal Justice	
Purpose/Intent	To present research at national and international meetings	
What makes this project a good investment for the state or institution?	Increase of visibility of SHSU	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 2,940
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 2,940**

Title	ORSP Travel 2010	
Description	Research related travel by Associate Vice President and Director of Research & Sponsored Programs, and affiliated support faculty	
Purpose/Intent	To seek funding opportunities, network with legislators and address compliance issues	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 25,451
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 25,451**

Title	Other Research Support	
Description	Research support for the Texas Research Institute of Environmental Studies	
Purpose/Intent	To support research activities	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 15,569
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 15,569**

Title	Other Research Support	
Description	Research support for the Department of Biological Sciences	
Purpose/Intent	To support research activities	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 5,498
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,498**

Title	Other Research Support	
Description	Research support for the Department of Physics	
Purpose/Intent	To support research activities	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 3,800
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 3,800**

Title	Other Research Support	
Description	Consulting services in support of remote sensing and geospatial analyses for the Office of Research and Sponsored Programs	
Purpose/Intent	To support research activities	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 2,500
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 2,500**

Title	Other Research Support	
Description	Research support for the Invertebrate Toxicology Laboratory	
Purpose/Intent	To support research activities	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 4,298
	Staff Benefits	$ 0
	Capital Expenditures	$ 30,543
	Total	**$ 34,841**

Title	Other Research Support	
Description	Research support for Aruba conservation project	
Purpose/Intent	To support research activities	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 3,277
	Staff Benefits	$ 0
	Capital Expenditures	$ 1,230
	Total	**$ 4,507**

Title	Other Research Support	
Description	Graduate Research Assistant stipends (5)	
Purpose/Intent	To support research activities	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 64,672
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 64,672**

Title	Other Research Support	
Description	Community of Scholars Research Support Suite 2	
Purpose/Intent	To support research activities	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 6,820
	Total	**$ 6,820**

Title	Other Research Support	
Description	Collaborative Institutional Training Initiative (CITI)	
Purpose/Intent	To support research activities involving compliance	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 1,750
	Total	**$ 1,750**

Title	Other Research Support	
Description	InfoEd Human Subject Development	
Purpose/Intent	To support research activities involving compliance	
What makes this project a good investment for the state or institution?	Increases research opportunities for faculty and students	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 10,584
	Total	**$ 10,584**

Title	ORSP Research Development Specialist
Description	Funds were used to hire a Research Development Specialist to provide expanded support for recently established research centers at SFA.
Purpose/Intent	The Research Development Specialist assists research centers at SFA with identifying grant opportunities, developing sustainability plans, and editing and submitting research grant proposals.
What makes this project a good investment for the state or institution?	This position will enable the SFA research centers to gain recognition, to find and apply for a greater number of grant opportunities, and to become self-sustaining entities that contribute to the research capacity of the university.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 9,800
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,800**

Title	Center for Regional Heritage Research
Description	The Center for Regional Heritage Research enables local cultural heritage research, coordinates existing research projects, and makes these assets available to researchers across a variety of disciplines.
Purpose/Intent	The goal of the Center is to bridge various research fields (including history, geography, archaeology, and natural resource interpretation) to encourage and coordinate heritage research projects and to initiate new interdisciplinary research projects.
What makes this project a good investment for the state or institution?	East Texas was home to Caddo Indians, French traders and Spanish missions prior to the early 1800s when it became the gateway to Texas as Anglo-Americans from the upland south came to Texas on the Old Spanish trail known as El Camino Real de los Tejas, or the royal road to Texas. The Center for Regional Heritage Research at SFA is located in this gateway region and is situated to research and disseminate important chapters of the history of the State of Texas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 76,456
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 4,632
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 81,088**

Title	Waters of East Texas (WET) Center
Description	The Waters of East Texas (WET) Center is an interdisciplinary research center focused on increasing coordinated research on water related resources of the east Texas region.
Purpose/Intent	The WET Center was established to encourage interdisciplinary, coordinated research and assessment projects at SFA on water related resources, ecosystems, and issues in the east Texas region.
What makes this project a good investment for the state or institution?	East Texas water resources are becoming increasingly important to the State of Texas as water demands continue to increase. Stephen F. Austin State University is well positioned, both geographically and technically, to become the expert institution on east Texas water resources, ecosystems, and issues. The WET Center will make SFA more competitive for outside research funding on water resources and will benefit east Texas by providing reliable science that will help state and local government agencies make decisions about management of east Texas water resources.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 114,242
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 7,220
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 121,462**

Title	Perkins College of Education Research Academy
Description	To provide a Perkins College of Education Research Academy that includes funds for research institutes, funding for faculty members to complete collaborative or individual research projects and prepare research papers.
Purpose/Intent	The purpose of these funds is to cover the publication costs of printing and dissemination of FY2009's research results.
What makes this project a good investment for the state or institution?	Publication and dissemination of research results will help strengthen an identity for the Perkins College of Education and SFA as a source of quality research in educational practice.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 2,402
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 2,402**

Title	Fluorescence and Luminescence Microplate Reader
Description	Funds are used to purchase a Fluorescence and Luminescence Microplate Reader, which is designed to detect fluorescent intensity in microplate format from 6-well to 384-well and PCR plates either by top or bottom reading.
Purpose/Intent	The Fluorescence Microplate Reader is an important instrument for research projects on discovery and development of novel anticancer agents from native plants in Texas. It is particularly used for enzyme-linked immunosorbent assay (ELISA), protein and cell growth assay, nucleic acid quantitation, and enzyme activity assays.
What makes this project a good investment for the state or institution?	The instrument will enhance SFA's research capacity in cancer drug research from native plants in Texas and will increase competitive capacity for federal research grants. It will also help reach research goals to develop high-valued pharmaceutical crops for the farmers in Texas and thus eventually benefit Texas agriculture.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 17,960
Total	**$ 17,960**

Title	Microspectrophotometer
Description	Funds were used to purchase a microspectrophotometer.
Purpose/Intent	The GE Nanovue provides an accurate analysis for the quantification of nucleic acids in very low volumes at low concentrations which were essential to successfully carry out delicate DNA ligation reactions. Acquiring this instrument has allowed many research projects to progress rapidly, accurately quantify nucleic acids and protein samples, without the loss of the sample. Specifically, Dr. Canterberry's laboratory was able to accomplish in one month what they had been unable to complete in a year's work with the previously available equipment.
What makes this project a good investment for the state or institution?	The GE Nanovue has saved both time and money by allowing research to be completed far more efficiently and decreasing the amount of reagents used in unsuccessful experiments. This equipment has made it possible to engage both graduate and undergraduate students in more experiments in the research laboratory by decreasing the amount of time spent on intermediate steps such as DNA and protein quantification and DNA cloning reactions.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 8,689
Total	**$ 8,689**

Title	Nuclear Magnetic Resonance Spectrometer (NMR)
Description	Funds were used to purchase the Nuclear Magnetic Resonance Spectrometer, which will aid/has aided in several research projects at SFA.
Purpose/Intent	The institution's chemical research required a FT NMR for obtaining 1H, 13C, and 2D NMR spectra to enhance the research efforts of several faculty on the SFA campus.
What makes this project a good investment for the state or institution?	The NMR instrument will give conclusive information that other characterization techniques cannot give. NMR is an indispensable tool for structural determination and will allow SFA researchers to move to the next level in their research efforts. For example, NMR-based techniques will be used to provide rapid, biomarker analyses to assess the chronic effects of chemical, physical, and biological stressors on environmental organisms.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 294,135
Total	**$ 294,135**

Title	Black Bear Study
Description	Funds were used to support graduate and undergraduate students engage in research on black bears.
Purpose/Intent	This study assessed the attitudes toward black bears and the differences between occupied and potential range. In addition, this study began to build a comprehensive stakeholder attitude toward black bear database of the four state region consisting of Arkansas, Louisiana, Oklahoma, and Texas.
What makes this project a good investment for the state or institution?	This project is an excellent investment because it provides a basis for additional funding (which has already been successful), sets up SFA for future research projects both within and outside of Texas, such as a comprehensive multi-state stakeholder study on bears.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 3,750
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 3,750**

Title	Assessing mule deer sightability during helicopter surveys in West Texas
Description	Assess the sightability of desert mule deer using existing helicopter surveys by comparing to known populations using radiomarked deer populations
Purpose/Intent	To identify structural elements and other variables that may affect sightability bias of mule deer-helicopter surveys
What makes this project a good investment for the state or institution?	Estimating the size of wildlife populations is a difficult task facing wildlife managers and biologists. Accurately estimating population size of wildlife species is especially important today as the value of wildlife resources is increasing an as income source for private ranches. It is important that management recommendations be based on accurate data due to 95% of lands falling under private ownership in Texas and wildlife is one of the primary economic assists on the land.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 6,413
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 6,413**

Title	Transboundary movement and habitat use by black bears (Ursus americanus) in the Chihuahuan Desert of Western Texas and Northern Coahuila, Mexico
Description	Disposal movements of emigrating and immigrating black bears in West Texas will be determined and habitat selection, home range, diet, reproduction and seasonal movement will be investigated and mortality factors during transboundary dispersal will be determined.
Purpose/Intent	Study will evaluate the connectivity of dispersal corridors, habitat selection during dispersal and mortality factors for immigrating and emigrating black bears in both countries.
What makes this project a good investment for the state or institution?	This study will provide needed information on a keystone and umbrella species that moves freely across the international boundary and will aid in the management this species in the Trans-Pecos of Texas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 5,569
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,569**

Title	The Evaluation of the Miniature Horse as an exercise physiology model for submaximal exercise	
Description	First of five research projects designed to determine the capabilities of the miniature horse an exercise physiology research model for full size horses.	
Purpose/Intent	Establishing the American Miniature Horse as an exercise physiology model for full size horses will allow the researcher to increase the number of experimental units without having to increase facility use.	
What makes this project a good investment for the state or institution?	Attaining advantages such as reduction in costs for experiments by requiring less feed, labor and cost of operating a high speed treadmill will be beneficial to enhancing the quantity as well as the quality of exercise physiological research in the equine industry.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 9,480
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 9,480**

Title	Further investigation into the natural history and conservation status of the Chihuahuan mud turtle (Kinosternon hirtipes Wagler, 1830) in Presidio County, TX
Description	Initiation of ecology and demographic study of K. hirtipes in livestock ponds near Plata, TX began in April 2007 and study continues. Continuing to study and expand the life history and conduct further assessments of the conservation status of K. hirtipes in southern Presidio County.
Purpose/Intent	Continue life history studies initiated in 2007 due to the given urgency for ecological and population data on this endangered turtle.
What makes this project a good investment for the state or institution?	Virtually nothing is known about the life history, ecology and conservation status of K. Hirtipes in Texas and such data are urgently needed to develop effective management plans. Subsequently, the only populations of K. Hirtipes in the United States are found at a few widely scattered sites in the Alamito Creek drainage of Presidio County, TX.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 4,684
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,684**

Title	A look at the lack of teacher certification in Texas public schools
Description	There are many teachers employed to teach classes in which they do not hold certification. It's imperative to determine the reasons that teachers do not obtain certification for all classes they teach.
Purpose/Intent	Determine the reasons why public school teachers in Texas, who are teaching out of their content areas, have not obtained certification in the areas they are teaching.
What makes this project a good investment for the state or institution?	This study will primarily use descriptive statistics. Analysis of completed surveys will be beneficial to researcher in identifying teacher certification area, courses taught outside of area, percentage of teaching load outside of teaching area and the reasons for not obtaining additional certification.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 3,416
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 3,416**

Title	The taxonomy of Laelapid Mites from Todent Hosts in Honduras	
Description	Laelapidea, are an understudied group of fur roaming acarines that live on the fur and in the nests of small mammals.	
Purpose/Intent	To study their host preference and species diversity in other parts of the world, other than North America.	
What makes this project a good investment for the state or institution?	It would bolster knowledge of the biotic diversity present for that area, as well as expand the natural history associated with their hosts throughout their range.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 4,673
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 4,673**

Title	Gastropod Paleobiogeography
Description	Proposal to travel to seek funding from several Federal agencies to support research in Alaska.
Purpose/Intent	Seek funding to fulfill a study in Alaska with presentations and future proposed research on terrane rocks.
What makes this project a good investment for the state or institution?	Publications will follow after research in Alaska is complete. Results will be documented from study of the lower Paloeozoidc faunas of the terranes of Alaska and their paleobiogeographic affinities.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 9,245
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,245**

Title	Molecular Systematics and Alkaloids of Lophophora alberto-vojtechii
Description	Lophophora alberto-vojtechii is a new species of cactus that has had no molecular system work
Purpose/Intent	To analyze the phylogenetic relations between this new taxon and the other members of this group.
What makes this project a good investment for the state or institution?	Sul Ross faculty will be able to participate in state-of-the art scientific research that would otherwise be limited by resources. Collaborations with large institutions can open up access to the instrumentation that SR lacks.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 4,821
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,821**

Title	Patch Burning as a tool for implementing prescribed fire on desert grasslands in the Trans Pecos	
Description	Multiple patches will be burned on both grazed and ungrazed pastures to determine the average spread and continuity of fire in a patch style burn. Comparison will be done to traditional burns with multiple ignitions.	
Purpose/Intent	Determine a patch size that is in balance with fuel loads, safe burning conditions, and economics in Brewster county.	
What makes this project a good investment for the state or institution?	Because of the many unknowns about the ecosystem, the role of fire in desert grassland is one that is still debated by ecologists. Upon research and burns, researcher can begin to address the purpose of the study.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 6,263
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 6,263**

Title	Continued Monitoring, New Searches, and Attempted Restoration of Ophioglossum polyphyllum (Ophioglossaceae): Further Development of a TXDot Management/Protection Program
Description	Following earlier publications describing the fern Ophioglossum polyphyllum for the first time within Texas and North America North of Mexico, additional field studies have been done to better define the distribution and general knowledge of the species
Purpose/Intent	Continue to determine the current status of previously documented Texas populations of O. polyphyllum; to continue to further define as well as establish baseline data for each population by documenting population size including actual and to reintroduce O. polyphyllum to the 505/166 population effected by past highway construction and to begin monitoring within the proposed construction sites along Hwy 67.
What makes this project a good investment for the state or institution?	This additional study will be beneficial to the state of Texas in that more information will be distributed and analyzed about this particular fern. Communication with TxDOT has been established and will continue to be open in regards to this fern when it comes to TxDot construction.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 2,723
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 2,723**

Title	Center for Big Bend Studies-Other
Description	Center for Big Bend Studies fosters interdisciplinary diverse prehistoric, historic, and modern cultures of the borderlands region of the United States and Mexico with emphasis on the area encompassed by Trans-Pecos and north-central Mexico.
Purpose/Intent	The Center is committed to the recovery, protection and sharing of this region's rich cultural legacy through dynamic programs involving research, education, public outreach and publication.
What makes this project a good investment for the state or institution?	The Center's research is publish in a semiannual journal on the history and culture of the Big Bend region and encourages research in the areas of history and culture throughout the region.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 122,516
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 122,516**

Title	Borderlands Research Institute-Other
Description	Borderlands Research Institute enhances the ability of ranchers, farmers, and citizens of Texas to conserve natural resources along the borderlands of Texas.
Purpose/Intent	These areas are experiencing unprecedented pressures on its natural resources. Population growth, habitat fragmentation, and invasive species coupled with frequent droughts make conservation and management of the natural resources especially challenging.
What makes this project a good investment for the state or institution?	The farming and ranching industry of Texas seeks effective means to maintain their heritage and livelihood while managing their natural resources and the Borderlands Research institute for Natural Resource management takes a leadership role in providing that information to the ranching and farming communities of Texas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 106,460
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 106,460**

Title	Research Development Fund	
Description		
Purpose/Intent	Intended for supporting the operations of the university Office of Grant Resources.	
What makes this project a good investment for the state or institution?	The Office of Grant Resources works closely with the university faculty in the development of research related grant proposals.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 34,904
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 34,904**

Title	All Terrain Vehicle for Turtle Patrols (Landry)
Description	Partial costs of an all terrain vehicle to patrol 54 miles of Bolivar Peninsula on a daily basis from April through July 2010 for sea turtle nests. This was used as cost share for a federally sponsored research project.
Purpose/Intent	A federally supported Texas General Land Office Coastal Management Program grant was awarded to patrol Bolivar Peninsula for nesting sea turtles. The RDF funds were used as a portion of the required match to the CMP funds. There were similarly awarded CMP funds in 2007-2009 to patrol Galveston Island and Surfside beaches for nesting turtles. There was great success in finding turtles and their nests as well as much notoriety in the latter studies. This effort was continued on Galveston Island, Bolivar Peninsula and Surfside beaches in 2010 and will be continued through the 2011 sea turtle nesting season.
What makes this project a good investment for the state or institution?	It ensures the involvement of both the State of Texas and the Texas A&M University System in on-going efforts to achieve population recovery of the critically-endangered Kemp's Ridley sea turtle as well as to educate municipal, state and federal resource managers about the invaluable role the upper Texas coast is playing in sea turtle recovery. In addition, the Texas Sea Grant Program and CMP grants grant enhances public education in the area of endangered species, habitat protection and coastal resources. Add to this, the development of ecotourism for coastal communities like Galveston Island and those along the Bolivar Peninsula where sea turtle nesting is an ongoing activity that attracts visitors to constituent beaches.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 2,000
Total	**$ 2,000**

Title	Acquisition of an Autonomous Underwater Glider to investigate mixing and dispersion of oil-gas mixtures (Anis)
Description	Research development funds were used as cost share for an NSF funded project to purchase a Slocum G2 (Teledyne webb Research) autonomous ocean glider. The glider and it's scientific payload can provide information over a much larger range of temporal (sub-seconds to days) and spatial scales (millimeters to kilometers) than possible with traditional shipboard measurements.
Purpose/Intent	Observational studies of turbulence in the deep-sea are relatively scarce, and to the best of our knowledge there are no published studies addressing the role of turbulence processes in the dispersion of oil-gas mixture, or other pollutants, plumes in the deep-sea. The BP oil spill provides a unique opportunity to study mixing and dispersion mechanisms in deep waters using oil-gas plumes as a distinctive marker. However, these dye like markers are temporary, eventually fading away, thus providing a relatively short window of opportunity for the proposed field work. The autonomous ocean glider, equipped with state-of-the-art scientific payload for simultaneous measurements of physical and biogeochemical variables, will allow us to capture the dynamics associated with deep-sea plumes. We have assembled an interdisciplinary team of oceanographers who will use this instrumentation to address the following basic research questions - 1. What are the physical processes that control the life-cycle, and possibly the eventual “death”, of the observed deep-sea oil-gas plume? 2. What are the biogeochemical processes, in addition to the physical processes, affecting the life-cycle of these plumes?
What makes this project a good investment for the state or institution?	The flexibility of the glider to accommodate various scientific payloads opens a horizon of possibilities currently unavailable at TAMUG. Examples of research topics that the new instrumentation can facilitate are: turbulence mixing and fluxes driven by tropical storms and hurricanes; mechanisms controlling hypoxia and harmful algal blooms, a major public health concern in the GOM and elsewhere; distribution and feeding patterns of marine mammals by simultaneously collecting acoustic vocalizations and high-resolution oceanographic data. Our proposed and future field projects will provide new research opportunities from undergraduate to postdoctoral levels. In particular, a large number of marine sciences, biology, engineering, and summer NSF-REU students at TAMUG will be exposed to state-of-the-art interdisciplinary research instruments and methods. The new instruments will also help to entice a higher caliber of undergraduate, graduate, and postdoctoral scientists, which in turn will greatly enhance all programs at TAMUG.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 635
Staff Benefits	$ 0
Capital Expenditures	$ 47,965
Total	**$ 48,600**

Title	Development of LASER measurement equipment for particle measurements, multi-phase flows and wave measurements (Warnakulasuriya)
Description	The LASER measurement techniques are the state-of the-art cutting edge technologies in measurement field that is available to measure very complex flow fields with highest possible accuracies. Under this project, development of two measurement systems, (1) particle measurement system using Phase Doppler Anemometer (PDA) techniques (it is developed half way), and (2) general flow field measurement system using Particle Image Velocimetry (PIV) technique is planned.
Purpose/Intent	The first system of PDA is capable of measuring size and the velocity of any types of particles in fluid flows varying from gas bubbles to drops to solid particles from few microns to couple of millimeters. This system the PI is planning to use for his research along Desalination, Bio fuel, fuel injection to Hydrogen generation. The second system of PIV, which is capable of measuring flow field parameters of velocities and pressures is mainly going to use for measurement of flow field under the wave and its interaction of stationary and moving objects, multi-phase oil and gas flows in pipeline and complex flow fields in heat exchangers. These measurements of flow fields will help the PI to conduct his research and optimally design the wave harvesting machines, tidal turbines, offshore floating wind turbines, oil and gas pipelines and relevant pipeline accessories, and shell and tube, compact and plate heat exchanger.
What makes this project a good investment for the state or institution?	These equipment which are currently unavailable in TAMUG, once developed will help the PI, most of the researchers in both engineering department and researchers involve in ocean measurement and motion analysis studies in Marine Science and Marine Biology departments to validate their studies in a small scale experimental setup. Therefore, the PI feels development of this equipment is very vital to the entire TAMUG family.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 7,532
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 37,828
Total	**$ 45,360**

Title	Center for Texas Beaches and Shores (Brody)
Description	Partial operating expenses for the Center for Texas Beaches and Shores for proposal development.
Purpose/Intent	Research focuses on sustainable coastal management, climate change planning, natural hazards mitigation, fostering the development of resilient coastal communities, and using spatial tools to examine and disseminate data to coastal stakeholders and other interested parties.
What makes this project a good investment for the state or institution?	Research provides key information to state policy makers on how to ensure the development of sustainable and resilient coastal communities, development of web-based spatial tools for interested parties to examine, visualize and predict impacts of development in coastal systems, dissemination of research at state, national, and international venues, enhanced reputation of TAMUG in coastal sustainability research, provides education and training opportunities to undergraduate and graduate students, enabled Center to obtain additional external funding of over $1 million, led to the recruitment of graduate students to the Galveston campus, and fostered collaborative research between the College Station and Galveston campuses.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 11,539
Operating Expenses	$ 5,466
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 17,005**

Title	Total Organic Carbon Analyzer (Amon)
Description	Purchase of Total Organic Carbon (TOC) Analyzer
Purpose/Intent	The TOC analyzer replaced an old and malfunctioning instrument and is used in both research and student training.
What makes this project a good investment for the state or institution?	The TOC analyzer allowed researchers to compete for federal and state funding which is used to conduct research and pay graduate and undergraduate students when they work in the laboratories as part of their training. The analyzer is also used in teaching formal classes like quantitative analyses and is often part of directed studies projects of undergraduate students. The new instrument has allowed the PI to maintain a high profile research program which will help to attract more students in TAMUG programs.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 14,000
Total	**$ 14,000**

Title	BP Oil Spill Research and CDOM Probe (Amon)
Description	Funding for research efforts after BP Oil Spill in Gulf of Mexico and purchase of CDOM Probe for this research. CDOM Probe - Measures the optical properties of “colored dissolved organic matter” and can be used to track specific chemical compounds like crude oil, or terrestrial organic matter in the ocean. The probe is mounted on an underwater sampler and gives real time data while sampling is underway.
Purpose/Intent	These funds were used to support Dr. Amon and associates rapid response to the BP oil spill. They participated in 2 research cruises to investigate the distribution and biological consumption of the subsurface hydrocarbon plume.
What makes this project a good investment for the state or institution?	The state will benefit from the acquired knowledge on what to expect from this spill event and help to determine the proper response to it. The institution benefits because of the numerous reports on TAMUG research in the national and international media. The project also involved several TAMUG undergraduate students getting hands-on training and experience in applied sciences.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 6,000
Operating Expenses	$ 6,661
Staff Benefits	$ 0
Capital Expenditures	$ 6,000
Total	**$ 18,661**

Title	Engineering Research (Carroll)
Description	Startup funds for a new Assistant Professor position Engineering faculty member recruited from another institution to continue research and start research projects that will eventually receive external funding.
Purpose/Intent	Usually for research endeavors, initial results are required before a project is externally fundable. A startup grant enables incoming faculty members to investigate research areas that would otherwise not be feasible because of lack of funding. A portion of this funding was used for the following research projects (in order of importance) (1) Steam leak detection in Kraft recovery boilers (2) Development of radiation shape factors for toroidal geometries (3) Bayesian statistical analysis of rising mean water levels in coastal regions and (4) Development of a unified post-calculus mathematics curriculum for technology majors.
What makes this project a good investment for the state or institution?	This type of funding is an excellent investment for the state in that these investigations usually result in external funding that is many times the amount granted for faculty startup.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 12,236
Operating Expenses	$ 12,000
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 24,236**

Title	Mathematics Research (Kang)
Description	A new tenure track position in mathematics was created at TAMUG. The funds are provided as summer salary, money for travel for purposes conducive to mathematical research, as well as computer equipment and software. The summer salary allowed the recipient to focus on mathematical research and has partially led to the submission of the paper "Domination in Functigraphs" on 7/12/2010 and the submission of the paper "Total Domination Value in Graphs" on 9/5/2010 - both papers are currently being refereed in international journals. The operating expense has paid and will pay for the recipient's travels for purposes related to his research and publications: travels to well-provisioned libraries and to work on math with collaborators, travels to conferences and seminars (both attending and giving talks) at various locations. Along this vein, the recipient and coauthors are finishing up the paper "Iteration Index of a Zero Forcing Set in a Graph", which is expected to be submitted to an international, refereed journal soon. The operating portion of the start-up funds supports activities such as the following: an invited talk given on 10/29/2010 at the Discrete Math Seminar of the Texas State University, San Marcos, TX; giving an invited talk at an AMS (American Mathematical Society) Special Session of the 2011 Joint Mathematics Meeting; co-organizing a Special Session at a Sectional Meeting of the AMS in April of 2011; giving an invited talk at a Mini-Symposium of the 7th International Congress on Industrial and Applied Mathematics (ICIAM 2011).
Purpose/Intent	This tenure-track position in mathematics will expand TAMUG's capabilities in this area and may also enhance research activities in other areas. It will also give students the opportunity to explore this important component in their studies.
What makes this project a good investment for the state or institution?	The primary missions of a university are the propagation of knowledge and the creation of new knowledge. It's thus in the interests of all Texans to have their state universities staffed by faculty who have the necessary knowledge and proficiency (gained through their research experiences) to be competent and confident teachers in the classroom.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 15,333
Operating Expenses	$ 5,000
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 20,333**

Title	Coastal Surge Barrier Research (Merrell)
Description	Research related to the technical, economic and social aspects of a coastal surge barrier protecting the upper Texas Coast
Purpose/Intent	Determine the best design criteria that not only allows for surge suppression to protect people and properties but provides the best environmental consequences.
What makes this project a good investment for the state or institution?	Hurricane Ike caused over $30 billion in damages and the upper Texas coast gets hit by a major (category 3 or higher) hurricane every 15 years. Surge suppression using a coastal barrier would be a cost effective method to prevent such loses.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 13,330
Operating Expenses	$ 16,670
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 30,000**

Title	Marine, Mechanical and Materials Engineering (Ingole)
Description	The funds were provided to develop the research program and research laboratory in the field of marine, mechanical and materials engineering (specifically materials development and characterization for extreme environment application)for a new Assistant Professor, Dr. Sudeep Ingole.
Purpose/Intent	To develop the research laboratory and funded research program at Texas A&M University at Galveston - to develop and submit the proposals to secure external funding in the area of expertise of Dr. Ingole (i.e. materials development and characterization) and to train undergraduate and graduate students for research and advanced testing techniques.
What makes this project a good investment for the state or institution?	The start-up funds were utilized to procure high temperature furnaces, develop contact angle measurement apparatus, purchase other miscellaneous items required to develop the research laboratory, travel and support undergraduate student on laboratory development and research projects. These funds will enable Dr. Ingole to start the active research and developments that will help to identify and solve the issues in the field of marine, mechanical and materials engineering. These funds will also enable Dr. Ingole to train undergraduate and graduate students by advising them on research projects. Thus the research and development activities will help understand and develop new technologies that will help to improve the standard of life for Texans.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,421
Operating Expenses	$ 36,079
Staff Benefits	$ 0
Capital Expenditures	$ 9,909
Total	**$ 47,409**

Title	IHABD ("it has all been done") Research (Domsky)
Description	The goal of my current research is a book to outline a new theory as to why human beings are prone to thinking that all possible major discoveries and breakthroughs are already behind us.
Purpose/Intent	To present a (potentially) entirely new contribution to ethical theory (the field in which researchers try to map, formalize, or otherwise model the rightness or wrongness of various possible actions across various possible situations). The body of evidence for this new contribution is enormous, still unrecognized, and intellectually fascinating. If the PI is correct about this new contribution, ethical theory will never be the same again.
What makes this project a good investment for the state or institution?	This book may have a far larger audience than most academically originated books. Many people believe, suspect, or act as though, give or take a few minor details, "it has all been done," (i.e. IHABD). Dr. Domsky has an entirely new explanation for why we might be prone to thinking IHABD. His theory has enormous explanatory power just as it is, but best of all it can be empirically tested. Even more interestingly, though, the theory suggests ways that we could instantly begin to disrupt and offset the things that cause us to believe IHABD.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 12,316
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 12,316**

Title	Theoretical Chemistry Research (Klein)	
Description	Salary support for Dr. Klein to research Chemical Models - Classical to Quantum Theoretic.	
Purpose/Intent	To continue Dr. Klein's research efforts in this area.	
What makes this project a good investment for the state or institution?	To continue Dr. Klein's collaborative efforts with international scholars, providing access to the latest in chemical research.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 4,500
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 4,500**

Title	Visualization and Coastal Atlas Research (Seitz)	
Description	Salary for a programming assistant, Rob Gatlin, to support research projects.	
Purpose/Intent	Supports evolving visualization technology and development of the Coastal Atlas. Troubleshoot and aid researchers with computer and audio-visual needs, dissemination of research findings and implementation of visualization technology.	
What makes this project a good investment for the state or institution?	Support for developing technology is always a good investment for the state, in order to keep TAMUG at the forefront and to allow researchers more time to focus on their areas of expertise.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 23,980
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 23,980**

Title	Marine Research Support	
Description	Alarm system at research facility and instrument maintenance support.	
Purpose/Intent	Alarm at Wetlands facility which houses fish will notify users when electrical power is interrupted and intervention is needed to maintain fish populations. Maintenance support for scientific instruments used for analysis of natural waters, sediments and organisms.	
What makes this project a good investment for the state or institution?	These items help to support the research activities at TAMUG which provide advancement in areas of interest at a local, state, federal and global level.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 5,842
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 5,842**

Title	Unallocated Funds	
Description	Funds will be used to support marine research at TAMUG. They were not allocated at during the reporting period.	
Purpose/Intent		
What makes this project a good investment for the state or institution?		
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 0**

Title	Influence of ecosystem heterogeneity and predation risk on habitat selection, resource use, and movements of non-migratory wildebeest
Description	A global positioning system telemetry collar system was used to track wildebeest and lions to determine patterns of habitat selection, resource use, and movements of this formerly migratory population.
Purpose/Intent	The research increases our knowledge and understanding of how formerly migratory populations exploit their environment and identify what resources are limiting to them. This knowledge can then be used to develop management plans that actively sustain these populations.
What makes this project a good investment for the state or institution?	Opportunity for collaborative research with Center for African Ecology and the Kruger National Park in South Africa.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 13,875
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 13,875**

Title	Interactions of Maspardin and Kif5
Description	Investigation of the interaction of maspardin and Kif5 (A, B, and C).
Purpose/Intent	To determine if an interaction was present, PCR (polymerase chain reaction) was run on previously obtained Kif5A and B samples using specifically designed primers. Phenol chloroform reactions were then run on the samples and restriction digests with EcoRI were performed. Gels of the restriction digests were run and DNA was excised from the gel and purified using a gel extraction kit. Another gel was run using the purified sample to ensure the correct size and orientation of the sample. This provided Kif5 samples that were ready for ligation reactions.
What makes this project a good investment for the state or institution?	Antibodies were added to the tissue and western blots were performed to determine if specific mice had a knockout or wild type genotype. Knockout mice assist researchers in important discoveries related to medical diagnoses.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,000**

Title	Calcium Imaging of the Chick Optic Tectum
Description	Conducted research utilizing a tool known as Calcium Imaging. Calcium Imaging involves the labeling of calcium ions with a fluorescent dye and viewing their movement under the microscope. Calcium is a major ion used during cell signaling in the brain. Calcium Imaging allows one to view the effects on calcium levels within the brain due to signaling of specific neurotransmitters.
Purpose/Intent	Development of the optic tectum in chicken embryos. Of particular interest is the role calcium signaling plays in the development of a specific set of progenitor cells in the tectum that can be labeled with tomato lectin. These lectin positive cells are thought to give rise to radial glia (which are support cells in the brain) along with neurons.
What makes this project a good investment for the state or institution?	This research may provide insight into the roles neurotransmitters such as glutamate and GABA play in the development of progenitor cells.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,000**

Title	Solo Exhibition at Metro Space Gallery and Group Exhibition at Lohin Geduld Gallery
Description	Funded two large-scale sculptural installations and a series of drawings.
Purpose/Intent	Funds supported a solo art show at Metro Space Gallery in Richmond, Virginia and a group exhibition at Lohin Geduld in New York including the packing, shipping and transportation costs associated with each exhibition.
What makes this project a good investment for the state or institution?	Publications and invitation to the School of the Arts at Virginia Commonwealth University to give a lecture on PIs work, including this recent body of work. PI also has patent pending. This was an excellent recruitment opportunity for the Art Department.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 5,000
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,000**

Title	The Effects of Featural versus Holistic Verbalization on Memory for Faces: A Dual Process Approach
Description	PI solidified knowledge within the field of memory; strengthened writing skills and thesis manuscript; analyzed preliminary data to check for any potential confounding issues and emerging trends; and created new objectives for the fall semester to ensure successful completion of goals in a timely manner.
Purpose/Intent	Research indicated that two types of verbalization are promoting facilitation of recognition memory such that both groups of verbalizers were significantly more likely to recognize studied faces than nonverbalizers. Additionally, no between-group differences emerged for novel face false alarm rates. Most central to the research question, conjunction false alarms rates were significantly higher for both types of verbalizers when compared to non-verbalizers.
What makes this project a good investment for the state or institution?	PI was accepted to speak to two professional conferences: the Southwest Cognition conference in College Station, Texas this October and the annual meeting of the Psychonomic Society in St. Louis, Missouri this November. With the work completed over the summer, I am prepared to represent our university well by demonstrating our commitment to quality research and scholarship. At both conferences, I will network with other researchers in my field and potentially build collaborative relationships that could produce new research directions and projects.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,000**

Title	The Role of Embodiment in Perception and Action in Virtual Environments
Description	Develop computer simulated experimental environments for psychological experimentation and equivalent human experimentation condition.
Purpose/Intent	The project team developed a higher realism environment with immersion capability, and is tweaking and polishing the environment to meet the requirement of psychological experimentation. The PI did more research on the literature in the realm of human computer interactions, and refined the experimental design.
What makes this project a good investment for the state or institution?	PI presented at four conferences and has submitted five manuscripts for publication. In addition, she has submitted two federal proposals for additional funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 6,155
Operating Expenses	$ 5,780
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 11,935**

Title	Mass spectrometry and ion mobility studies of metal-peptide and protein complexes
Description	Funding helps support graduate and undergraduate students who will conduct research using the IM-Q-TOF instrument. Students will initially be trained on the operation and maintenance of this sophisticated IM-Q-TOF instrument and then mentored while they develop their research projects. Four research projects were proposed.
Purpose/Intent	Funding supports graduate and undergraduate students who will conduct research using the IM-Q-TOF instrument. Students will initially be trained on the operation and maintenance of this sophisticated IM-Q-TOF instrument and then mentored while they develop their research projects.
What makes this project a good investment for the state or institution?	Dr. Angel has four master's theses students (Hsin-Yi Tsai, Tianran Shi, Brain Hilliard and Brandon Utley) and three undergraduate (honor's) thesis students (Ronald Rainey, Mickey Mathews and Amy Davis) involved in his research group. The state-of-the-art instrument IM-Q-TOF, is allowing us to develop methodologies for studying protein assembly and to extend these studies to "real world" systems such as carbonic anhydrase complexes and the protein complexes that are the functional units in the cell membranes present in our proteomics research.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 11,405
Operating Expenses	$ 3,475
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 14,880**

Title	The geometry of infinity-harmonic and biharmonic maps II
Description	The project seeks to make original contributions to understanding and/or solving the following three fundamental problems in Mathematics: Problem 1. Given two model spaces (e.g., some nice space such as spaces of constant sectional curvature or more general symmetric spaces), does there exist an infinity-harmonic or a biharmonic map from one space into another? Problem 2. Classify all infinity-harmonic and biharmonic maps between two model spaces where the existence is known. A typical and challenging problem is Chen's conjecture which claims that any biharmonic submanifold in Euclidean space is minimal. Problem 3. What geometric and topological properties of the domain and the target spaces are required to support an infinity-harmonic, or a biharmonic map from one space into another?
Purpose/Intent	On Biharmonic maps: (1) Proved that the generalized Chen's conjecture on biharmonic submanifolds is false. This conjecture had been studied by may scholars around the world. [CMO1], [MO], [BMO1], [BMO2], [BMO3], [Ba1], [Ba2], [IIU]; (2) Obtained a complete classification of biharmonic Riemannian submersions from 3-manifolds to a surface; (3) Created several construction methods and use them to produce many new examples of proper biharmonic maps; (4) Derived the equation for a function whose graph is a biharmonic hypersurface in a Euclidean space, and give an equivalent formulation of Chen's conjecture on biharmonic hypersurfaces by using the biahrmonic graph equation, which paves a way for analytic study of the conjecture. On infinity-harmonic maps: Proposed a new notion called infinity-harmonic maps between Riemannain manifolds, which generalizes the well-known notion of infinity harmonic functions and p-harmonic maps. Obtained a characterization of maps that preserve the solutions of infinity-Laplace equations.
What makes this project a good investment for the state or institution?	The project resulted in 7 papers: 1 published, 2 accepted and 4 submitted for publication in Science Citation Indexed Math journals. Two manuscripts accepted but not yet published. Four manuscripts were submitted for publications. PI presented research results at conference in China and In California.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 2,100
Operating Expenses	$ 556
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 2,656**

Title	Chiral Pyrrolidine-Catalized Asymmetric Organic Reactions
Description	This research focused on the study and understanding the fundamental effects of organocatalysts for asymmetric reactions, including: 1) study of how solubility and steric inductive properties of catalysts affect the reactivity and selectivity, 2) student the recyclability of catalytic system, and 3) application of catalysts for a broad scope of asymmetric reactions.
Purpose/Intent	The purpose was to synthesize and characterize new catalysts using a novel strategy for the catalytic asymmetric Michael addition of aldehydes to nitroolefins on water providing the Michael adducts with excellent diastereo-and enantioselectivities.
What makes this project a good investment for the state or institution?	This project and the novel approach benefit both laboratory scale research as well as use in industrial applications.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 3,556
Operating Expenses	$ 4,392
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 7,948**

Title	Fractal Self-Organization of Sensory-Motor Systems
Description	The research will involve recurrent neural network models of event perception (Lu, Harter & Graesser, in press), related to the operation of reservoir systems for perception and build an embodied reservoir system with enactive vision, combined with range and tactile sensory inputs (multi-sensory fusion is also a crucial component of such theories). This system will give us the components to explore a fractally developmental cognitive system, capable of learning perceptual-motor skill sets in stages, similar to developmental stages observed in vertebrates (Harter, Lu, 2005; Thelen & Smith, 1994; Piaget, 1980; Oyama, 1985).
Purpose/Intent	The basic theory is to combine several layers of reservoir systems. A reservoir system represents a single cortical microcircuit of a biological brain. We will explore using several cortical microcircuits, and structuring them so that a developmental sequence can be simulated, with different cortical microcircuits taking responsibility for different levels of complexity/abstraction in developmental learning. Efforts with similar theoretical viewpoints are being carried out and currently have huge support, for example the IBM EFPL/Blue Gene cognitive computing effort (Ananthanarayanan & Modha, 2007), and Neumenta's hierarchical cortical temporal memories (Hawkins & George, 2006).
What makes this project a good investment for the state or institution?	If a fractally self-organizing cognitive mechanism were demonstrated, it would be extremely significant to the field. From the viewpoint of dynamical and embodied cognition, it is commonly agreed that self-organizing mechanisms are crucial (Kelso, 1995; Thelen & Smith, 1994; Harter & Kozma, 2006; Hendriks-Jansen, 1996). However, the details of how these mechanisms operate in biological brains are not yet well understood. The combination of reservoir systems in embodied robotics with the fractal catalytic view provides a detailed hypothesis of how self-organizing mechanisms might operate and be modeled. This combination is unique to our research, and has not yet been successfully demonstrated, though similar ideas and approaches are converging on concepts of high-dimensional non-linear dynamics and self-organizing mechanisms as keys to understanding cognition.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 11,000
Operating Expenses	$ 673
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 11,673**

Title	Soil CO2 Flux, Temperature and Water Content in a Texas Green Roof Garden
Description	This study will use the existing green roof garden on the Texas A&M – Commerce science building, established in 2007. This site consists of 40 modules of 10 plant species arranged in a randomized complete block design. A Li-Cor 6400-09 Soil CO2 flux meter will be used to analyze soil CO2 levels in each of the modules on a weekly basis, beginning in spring 2010 and continuing through October 2010. The 6400-09 will also be used to measure soil temperature at each reading. Soil samples will be collected and weighed to the nearest 0.1 g. Samples will be oven-dried at 80°C for 72 hours and reweighed to determine soil moisture. Soil surface temperatures will be measured using a Omega OSXL450 infrared thermometer. Data will be analyzed using Proc MIXED (SAS Institute, Cary, NC) to determine any differences that may exist between plant species. Data will also be used to estimate soil CO2 flux over a growing season across multiple species.
Purpose/Intent	The purpose of this study is to use measurements of soil CO2 flux to develop information on how urban carbon cycles may be altered using green roofs.
What makes this project a good investment for the state or institution?	Green roof technology is a burgeoning field and the more knowledge that is generated the greater our opportunity for service to our students, the research base and to society.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 6,453
Operating Expenses	$ 3,074
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,527**

Title	Development of Sustainable Technologies for Conversion of Bio-Oil into Fuel and Feedback Residues into Animal Feed
Description	Researchers will use an integrated approach (chemistry combined with plant and animal science) to test protocols that provide beneficial products to three of our society's sectors (livestock, human food, and liquid bioenergy). The second objective was to test ultra-small-scale industrial equipment and chemical catalysts (Lou et al., 2008) that convert biomass into fuel and animal feed more efficiently than existing procedures. From a scientific perspective, our research is significant because it will provide a deeper understanding of the fundamentals involved in chemical kinetics and catalysis. Furthermore, we will also demonstrate how the initial composition of agricultural feedstocks affects biofuel conversion efficiency and the nutritional quality of the meal.
Purpose/Intent	Specific approaches of the project team for testing biodiesel synthesis efficiency include: (1) comparisons of heterogeneous carbohydrate-based catalysts that convert triglyceride vegetable oils into biodiesel, (2) comparing conversion of canola, safflower and soybean oils to biodiesel via homogeneous processes (conventional transesterification), and (3) measure improvement of fuel quality, such as viscosity, density, moisture, heating value, aromatic/aliphatic ratio, and octane number, of biodiesel from various bio-oils (Lang et al., 2001). Our approach for quantifying the value of the meals from the selected biomass feedstocks includes conventional digestibility tests as well as protein concentration (Heitholt et al., 2007).
What makes this project a good investment for the state or institution?	Journal publications or presentations at interdisciplinary conferences, including ACS Southwest Regional meeting, are expected and will enhance students' confidence to compete for funding and employment nationally.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 18,140
Operating Expenses	$ 11,034
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 29,174**

Title	The Fan Fiction Reader
Description	Scholarship on fan studies, the study of fan cultures and fan productions, exists in a variety of academic disciplines: anthropology, communication, composition / rhetoric, computer science, film studies, folklore studies, law, library science, literary studies, media studies, psychology, sociology, information technology studies, etc. This project will produce a collected edition of essays about fan fiction with apparatus for use in the classroom. The Reader is for readers unfamiliar with fandom beyond inaccurate media portrayals. Fans of television and films have a history of creating derivative fictions. This interdisciplinary and international reader will feature three types of essays.
Purpose/Intent	This Reader will draw upon the historically significant work on fan fiction as well as incorporating the newest scholarship on current topics. The Reader will cover such topics as: the origins and histories of fan fiction; the effects of changes in technology on fandoms and fan writing; the complex legal issues related to fan fiction; the debates about slash fiction; the conflicts around race and sexuality in fan fiction; the debates over similarities between fan fiction and other more legitimatized genres (pastiche, parody, homage, satire, adaptation); the attempts by corporations to generate profits from user-generated content, thus the commercialization of fan fiction, etc.
What makes this project a good investment for the state or institution?	Selected peer-reviewed essays based on three presentations were given at Slash Fiction Study Days at de Montfort University, Leicester, U.K. Past presenters are not guaranteed acceptance, however; we plan a review process. However, this conference has brought together an international and interdisciplinary group of scholars that will give us a rich pool of applications upon which to base the collection. A collection of abstracts of submitted proposals is attached. invited essays from fan academics and fan scholars not represented in the earlier work, especially addressing current issues, including the creation of a non-profit organization for fan works, The Organization for Transformative Works (http://www.transformativeworks.org/).
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 771
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 771**

Title	Equipment for Science Confederation
Description	Six items were acquired including a Hammer Mill, a Digital Sonic Dismembrator, a Soil Moisture Meter, a Digital Refractometer, a Field Scout Quantum Meter, and an Infra-Red Crop and Soil Thermometer.
Purpose/Intent	Equipment was acquired to assist in research in leaf and soil research as well as for water and drought studies.
What makes this project a good investment for the state or institution?	This equipment is necessary for students and faculty to conduct research in the targeted areas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 9,780
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,780**

Title	Robust Data and Visual Analytic Tool for Automatic Information Retrieval from Massive Data Sets
Description	This project initiated an advanced research project to develop an efficient framework for a data and visual analytics tool focusing on the understanding of implicit and explicit meaning of massive data sets and the visual representation of the retrieved information from the data sets for easy understanding and appreciation. The framework will be based on conceptual clustering, ontological semantics, and fuzzy logic which will show powerful and tightly-coupled data transformation method when combined. Contrary to the conventional data and visual analytic methods, this proposed approach will (1) tightly couple data transformation methods with visualization systems through various methods to capture and represent information, (2) facilitate data transformation process to create more meaningful representation of information with semantic richness and validity through visual user interface for output, (3) be purely adaptive in that the search and information extraction is personalized in the light of each user's current need for information and knowledge level, and (4) facilitate dynamic identification of new events, objects, patterns, changes, or information from massive data sets.
Purpose/Intent	This initiative will influence the lives of every individual, organizations, or corporations, where the access, acquisition, and extraction of information from tremendous amount of plain data sets are the essential and crucial part of their daily operations.
What makes this project a good investment for the state or institution?	This study contributes to an existing research project whose design prototype is already underway and gaining momentum. Two, it furthers the ability of students to participate in a practical yet intensive research and learning opportunity, hence encouraging and enhancing student's participation with state-of-the-art research. Three, it represents research on the Foundation s of Data and Visual Analytics (FODAVA), which is one of many joint initiatives of the National Science Foundation (NSF) and the Department of Homeland Security (DHS).
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 9,414
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,414**

Title	Effect of Quark-Hyperons-Transition Phase on the axial w-mode gravitational wave.
Description	This research explored the effect of Quark-Hyperons-Transition Phase and the reason behind this through study of the frequency and damping times.
Purpose/Intent	The purpose is to find signatures of the gravitational waves, especially the ones with high frequencies.
What makes this project a good investment for the state or institution?	Researchers will publish findings in reputable physics journals and report the findings at national meetings.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,000**

Title	Big Bang Nucleosynthesis
Description	Focus was on how free electrons affected reactions during the Big Bang Nucleosynthesis (BBN). Computing the nuclear reaction for the BBN including all possible reactions was done during this summer research experience.
Purpose/Intent	The purpose was to predict changes in the abundances of light elements during the BBN with inclusion of the enhancement of reaction cross sections caused by the electron screening effect.
What makes this project a good investment for the state or institution?	Manuscripts were submitted for publication as a result of this research.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,000**

Title	Alligator Research
Description	The objectives of this project were to estimate the population size for the study site, to collect baseline data on growth rates and to determine the age/size distribution of the existing population as well as the estimates of the home range area and habitat selection patterns by size/age class.
Purpose/Intent	The purpose was to predict changes in the abundances of light elements during the BBN with inclusion of the enhancement of reaction cross sections caused by the electron screening effect.
What makes this project a good investment for the state or institution?	Manuscripts were submitted for publication as a result of this research.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,000**

Title	Proteomics of the Cellular Membrane: Mass Spectrometry of Fragments Selectively Cut from Extracellular Membrane Proteins
Description	A multidisciplinary team used bioinformatics databases to identify membrane proteins from their fragments obtained by selective cleavage.
Purpose/Intent	With the human genome sequenced, the next big goal of biologists and chemists is to identify the expression and function of the proteins. PIs tested and optimized our cleavage and purification method on hemoglobin, a common protein from red blood cells. Next, as a positive control, PIs examined proteins exposed on the surface of red blood cells and used the new method to follow the expression levels of membrane proteins on neural stem cells.
What makes this project a good investment for the state or institution?	Three groups cooperated, and enabled graduate students and summer interns to become broadly trained in chemistry, biochemistry, spectroscopy, and bioinformatics through collaborative research and joint meetings. Preliminary results were reported at the A&M System Pathways Symposium in November 2008 and solid results at a regional or national conference in the second half of 2009. We intend to publish a methods paper and obtain excellent preliminary data for external grant proposals.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 12,661
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 12,661**

Title	Evaluating Green Roof Gardens for Texas
Description	Collection of roof surface temperature from exposed points and those covered with green roof modules using thermocouples, infrared thermometers, and infrared imagery.
Purpose/Intent	Explore new technologies, specifically green roof gardens that may help minimize energy costs.
What makes this project a good investment for the state or institution?	Energy costs continue to soar and society becomes concerned about man's impact on the environment. An understanding of horticultural aspects of green roofs continues to require additional information which was determined as a result of this project. Information was shared with visiting students and student groups including the summer K-12 STEM project and NSF funded Research Experiences for Undergraduates (REU) benefiting community college STEM majors.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 2,099
Operating Expenses	$ 3,193
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,292**

Title	Carryover - Evaluating Green Roof Gardens for Texas
Description	Collection of roof surface temperature from exposed points and those covered with green roof modules using thermocouples, infrared thermometers, and infrared imagery.
Purpose/Intent	Explore new technologies, specifically green roof gardens that may help minimize energy costs.
What makes this project a good investment for the state or institution?	Energy costs continue to soar and society becomes concerned about man's impact on the environment. An understanding of horticultural aspects of green roofs continues to require additional information which was determined as a result of this project. Information was shared with visiting students and student groups including the summer K-12 STEM project and NSF funded Research Experiences for Undergraduates (REU) benefiting community college STEM majors.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,420
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,420**

Title	Mass spectrometry and ion mobility studies of metal-peptide and protein complexes
Description	Support graduate and undergraduate students who will conduct research using the ion mobility, quadrupole, time-of-flight (IM-Q-TOF) mass spectrometer to investigate the reactions and structural transformations of transition metal-peptide and protein complexes
Purpose/Intent	To determine the structure and reactivity of transition metal-peptide complexes using mass spectrometry, ion mobility and molecular modeling studies. To investigate the kinetics and structural transformations of copper and palladium complex hydrolysis reactions of peptides and proteins. To study proteomics of the Cellular Membrane - Mass Spectrometry of Fragments Selectively Cut from Extracellular Membrane Proteins. To apply collisional activation and ion mobility-mass spectrometry to elucidate the composition and organization of protein complexes.
What makes this project a good investment for the state or institution?	Mass spectrometry and ion mobility studies of metal-peptide and protein complexes - Support graduate and undergraduate students who will conduct research using the ion mobility, quadrupole, time-of-flight (IM-Q-TOF) mass spectrometer to investigate the reactions and structural transformations of transition metal-peptide and protein complexes

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,944
Operating Expenses	$ 879
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 2,823**

Title	Synthesis and study of porphyrin-based receptors for anions of environmental importance
Description	Developing selective receptors for anions of environmental importance.
Purpose/Intent	The relevance of the work centers on the feasibility of developing selective sensors for environmental contaminants like nitrate, nitrite, perchlorate, pertechnetate, and phosphate to aid in the environmental monitoring of anionic pollutants that possess multiple adverse health effects.
What makes this project a good investment for the state or institution?	The results of this study will aid in the development of receptors for other anionic species of biological, biomedical, and environmental interest. These receptors could serve as sensors or extraction agents for anionic contaminants. A graduate student synthesized a porphyrin based receptor, characterized the receptor and studied it anion and molecular recognition properties using UV/Vis, NMR and Mass Spectral studies. She found that the receptor was selective for spherical anions like bromide and chloride and linear anions like thiocyanate, which is reasonable and expected based on the shape of the host. The results are being submitted for publication.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 20
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 20**

Title	Archival Research on Philip Roth toward the Completion of Two Book Manuscripts
Description	Review of primary documents from the Library of Congress to add to scholarship of two critical book manuscripts.
Purpose/Intent	To access material in archival collections about Philip Roth. The intent is to complete two book-length manuscripts currently underway.
What makes this project a good investment for the state or institution?	The results of this research will be invaluable to Philip Roth scholars as well as libraries and other researchers interested in 20th Century and contemporary American literary studies. A deadline extension was granted to further enrich the book manuscripts underway with the results of this research. The A&M-Commerce library now has one of the most complete holdings of scholarly publications on Roth which is advantageous to researchers in the state and beyond.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 136
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 136**

Title	Investigations into ACP33/maspardin's role in Mast Syndrome
Description	Investigation of the molecular mechanisms of maspardin's role in receptor trafficking. The working hypothesis is that ACP33/maspardin plays a critical role in protein trafficking and elimination of the protein effects normal cellular endocytosis. Indeed, preliminary results demonstrate strong co-localization of ACP33/maspardin with known proteins critical in the endocytic pathway. In addition, degradation assays of the epidermal growth factor (EGF) receptor in maspardin deficient mouse embryonic fibroblasts (MEFs) demonstrate a decrease in receptor degradation.
Purpose/Intent	The purpose was to determine ACP33/maspardin-protein interactions through co-immunoprecipitation experiments as well as yeast two-hybrid, pull-downs and co-localization under confocal microscopy. Using an unbiased approach, immunoprecipitation results demonstrate maspardin interacts with ALDH16A1, an aldehyde dehydrogenase, in HeLa cells. In addition, the researchers explored maspardin's contribution to development of corticospinal neurons using a "knockout" mouse
What makes this project a good investment for the state or institution?	Research activities of the Principle Investigator (PI) are closely linked to his educational activities. More specifically the research activities will serve as an instrument for recruitment, training, and mentoring rural, often first generation college students and to encourage these students to pursue advanced degrees in science. The PI published a manuscript based on the research.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 8,965
Operating Expenses	$ 2,151
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 11,116**

Title	Investigations on chemical dependency including K-2 and dependency issues of African-Americans.
Description	The PI conducted research for three books related to chemical dependency.
Purpose/Intent	Three research projects included: book on K-2 synthetic marijuana, book related to chemical dependency issues facing African-Americans, and two research articles on levels of spirituality and identity development in African-Americans.
What makes this project a good investment for the state or institution?	These are very timely topics that impact our university, our community and society in general.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 600
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 600**

Title	Assistance with mass spectrometry and ion mobility studies	
Description	PI utilized graduate assistants to fulfill research responsibilities.	
Purpose/Intent	To support PI in mass spectrometry	
What makes this project a good investment for the state or institution?	The state of the art Mass Spectrometer instrument is extremely sophisticated and students must have appropriate training and supervision to utilize this effectively. The assistants enabled the instrument to be maximized.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 4,000
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 4,000**

Title	Summer Research Assistant
Description	This traditional literary research dissertation focuses on four female characters from The Silmarillion and The Lord of the Rings by J. R. R. Tolkien. The analysis of gender and sexuality from three perspectives; research will focus on medieval literary gender roles, the context of the changing gender roles in Britain after WWI, and postmodern constructions of gender and sexuality.
Purpose/Intent	Assistantship allowed researcher to continue researching scholarship on Tolkien's work to analyze medieval literary influences on heroic male characters. Scholarship on Tolkien's female characters tends to emphasize medieval influences. The few feminist publications that do analyze Tolkien's female characters focus on traditional gender ideas and ignore the social constructedness of gender and sexuality.
What makes this project a good investment for the state or institution?	This work has strong potential for publication in a variety of peer-reviewed academic journals that emphasize feminist, queer, or gender scholarship; social and cultural studies; and traditional literary scholarship including fantasy literature and Tolkien studies. The researcher was able to publish her manuscript as a result of this assistance.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,000
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,000**

Title	Research Experiences for Undergraduates	
Description	Two undergraduate Chemistry majors supported the REU project	
Purpose/Intent	To assist with logistics and implementation of NSF research project.	
What makes this project a good investment for the state or institution?	The REU grant provided funding for an innovative collaboration with community colleges in the region. These students were a diverse group and will go on to major in chemistry at our institution or another college helping to fulfill the need for more US scientists.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 4,999
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 4,999**

Title	Research Assistant for Institutional Review Board (IRB)	
Description	Graduate assistant reviews and evaluates research descriptions and issues related to human subjects.	
Purpose/Intent	An essential part of research is in the protection of human and animal subjects. This attention to the analysis of research designs assists Pis in ensuring all research follows ethical principles.	
What makes this project a good investment for the state or institution?	An essential part of research is in the protection of human and animal subjects. This attention to the analysis of research designs assists Pis in ensuring all research follows ethical principles.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 13,012
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 13,012**

Title	Research Compliance
Description	Professional position responsible for all issues involved in responsible and ethical conduct of research.
Purpose/Intent	The purpose of this position is to continually evaluate and support faculty in research issues related to the following: Biosafety, human subjects, animal care and use, export control, conflict of interest, responsible conduct of research.
What makes this project a good investment for the state or institution?	An essential part of research involves ethical principles and conduct. This professional provides a tremendous service to that purpose.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 3,113
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 3,113**

Title	Membership in Grants Resource Center
Description	The Grants Resource Center is and organization committed to strengthening the competitive edge of colleges and university faculty members and administrators pursuing sponsored programs funding from public and private sources.
Purpose/Intent	The purpose of the GRC membership is to offer access to timely and actionable information on funding opportunities, providing personalized support to meet specific campus needs, and promoting networking among sponsored programs professionals. The OSP uses this resource to identify grants, follow up on funding agencies and access other professionals who have been successful in the disciplines we are pursuing.
What makes this project a good investment for the state or institution?	This membership assists A&M-Commerce in achieving institutional goals and program development priorities.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 5,641
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,641**

Title	Gulf of Mexico Biodiversity Informatics
Description	Phase II, the conversion of the checklists found in phase I into an online database, with the financial help of NOAA and the Sloan Foundation made available at GulfBase, a Gulf of Mexico portal.
Purpose/Intent	Phase II, to convert biodiversity data/inventory information gathered in Phase I (2004-2008) into a database; To provide open access for taxonomists to update and/or correct their Gulf of Mexico Biodiversity Project data; To develop an open access, online database of the biodiversity of the Gulf of Mexico. of the checklist from Phase I into an online database for researchers, students and managers of biodiversity information.
What makes this project a good investment for the state or institution?	The database in development will provide a robust tool from a taxonomic, structural and functional perspective to the scientific and conservation communities as well as an opportunity to other scientists to contribute to the geographic representation of the species (either with point data or modeling efforts). Moreover, the system could use/link to the existing web services provided by other portals with occurrence data such as the Global Biodiversity Information Facility (GBIF).

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 10,517
Operating Expenses	$ 424
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 10,941**

Title	Effects of Predator Type and Diversity in Natural Communities	
Description	Understanding how biodiversity affects the structure, function, and stability of communities is a fundamental goal of contemporary ecology.	
Purpose/Intent	Determine how predator type and diversity affect oyster reef communities and to understand how the identity and diversity of consumers affects the structure of oyster reefs, an important estuarine community.	
What makes this project a good investment for the state or institution?	Results from this manipulative field study will provide important insights as to which predators influence oyster reefs community structure, which is invaluable for managing fisheries that directly affect this essential marine habitat.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 17,150
	Operating Expenses	$ 12,098
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 29,248**

Title	Responsible stewardship in recreational fisheries: Can rapid recompression of red snapper (Lutjanus campechanus) effectively reduce discard mortality?
Description	This goal of this project is to determine if a technique called “rapid recompression” (i.e., a forced decent using a Shelton Fish Descender Hook) can increase discard survival of red snapper.
Purpose/Intent	The purpose of this project is to elucidate fine-scale habitat use patterns of red snapper around platforms using state-of-the-art acoustic tracking systems. Three-dimensional tracking of red snapper has never been attempted in the Gulf of Mexico, and will provide high-resolution habitat use information.
What makes this project a good investment for the state or institution?	Red snapper is the most economically important reef fish in the Gulf of Mexico, and this research brings a new, important research direction to Texas A&M University-Corpus Christi. Ultimately it will provide fishermen a cheap, fast, and simple way to return undersized red snapper to depth and reduce overall mortality.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 6,058
Operating Expenses	$ 15,015
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 21,073**

Title	Developing methods for examining adaptive variation in spotted sea trout and red snapper using three genes potentially under selection
Description	This project will allow us to (1) understand how characteristics of organisms and their environments influence amounts and distribution of genetic variation and (2) use this knowledge for threatened, invasive, or managed species, such as spotted sea trout, to inform decisions by resource managers. The rationale for the proposed research is that the new methods my lab will develop and test will allow fisheries managers to make informed decisions about conservation and management of spotted sea trout and other fisheries.
Purpose/Intent	To Develop methods for investigating potentially adaptive genetic variation in spotted sea trout and red snapper by characterizing: a. major histocompatibility class II (MHC II) genes; b. heat shock cognitive 70 (Hsc70) genes; and c. pantophysin (PanI) genes in these species. 2. Compare variation in these genes and their distribution to that of neutral markers (microsatellites and mitochondrial gene, ND4) in spotted seatrout as a test of these methods.
What makes this project a good investment for the state or institution?	In this project we expect to find that variation along the Texas coast will indicate important adaptive differences among sampling locations, indicative of stock separation. Our focus on examining adaptive variation in spotted seatrout and red snapper will provide valuable and timely information to managers for a fishery of importance to Texas. Moreover, this project will serve as a model for studies of this kind for other fisheries and provide preliminary data for federal grant proposals for larger Gulf-wide studies of a state (spotted seatrout) and a federally-managed species (red snapper) and means to establish collaborations with researchers at other institutions such as UTMSI and TAMU.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 14,226
Operating Expenses	$ 11,295
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 25,521**

Title	Advanced Imaging Technology to Develop Rapid Assessment Protocols for Epiphyte Loading
Description	We will develop a Rapid Assessment Tool, comprised of two imaging technologies and associated analytical methods, which can be used to understand how anthropogenic impacts from changing land-use patterns and global climate change affect seagrass function in estuarine systems.
Purpose/Intent	A novel system to monitor and characterize epiphyte loading on seagrass leaves will be developed to enable new studies of seagrass ecology that: 1) provide a time-integrated measure of nutrient loading in aquatic systems; 2) establish a routine protocol for agencies such as TPWD to monitor seagrass condition and water quality in sensitive estuarine areas; and 3) establish archival images with high spatiotemporal resolution to serve as a sentinel system for long term environmental changes.
What makes this project a good investment for the state or institution?	Seagrass communities are critical for Gulf of Mexico fisheries. A novel system to monitor and characterize epiphyte loading on seagrass leaves will be developed to enable new studies of seagrass ecology that: 1) provide a time-integrated measure of nutrient loading in aquatic systems; 2) establish a routine protocol for agencies such as TPWD to monitor seagrass condition and water quality in sensitive estuarine areas; and 3) establish archival images with high spatiotemporal resolution to serve as a sentinel system for long term environmental changes.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 22,345
Operating Expenses	$ 15,160
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 37,505**

Title	Predicting Marsh Ecosystems Change
Description	Costal marshes are important ecosystems that provide many benefits to human health and well -being including protecting the inland areas from storm surge, storing water, removing nutrients that flow in from watersheds, and providing nursery habitat for key commercial and recreational fisheries. The main goal of the proposed research is to develop a forecasting system to allow us to determine effected of human activities on marsh structure and function.
Purpose/Intent	The main goal of the proposed research is to develop a forecasting system to allow us to determine effected of human activities on marsh structure and function.
What makes this project a good investment for the state or institution?	One of thr problems facing us is the Nueces Delta is to determine how much water to divert back into the marsh to increase water levels in order to restore the vegetated wetlands. To solve this problem, the goal of this project is to good and workable mathematical models for marsh ecosystems for the Nueces River mouth. Then such mathematical models could be modified as needed and applied to marshes in other regions of the country that are susceptible to the negative ecological and environmental impact from construction and water resource development.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 30,939
Operating Expenses	$ 2,769
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 33,708**

Title	n-Alkane and Polycyclic Aromatic Hydrocarbon Contents of Corals and Sediments from the South Texas Coast
Description	Due to increasing environmental stressors along the South Texas coast, n-alkane and PAH contents of corals and associated sediments would provide valuable baseline data to enhance our understanding of the impact of some of these pressures on such ecosystems. This proposed work would not only expand our capacity to study the chemistry of corals and contribute to other important coastal research projects, it would also help direct our future efforts in studying and managing habitats along the Texas coast.
Purpose/Intent	This study is designed to accomplish three main objectives:1. Develop lab methods to extract organic compounds from coral samples. 2. Provide baseline data on chemical composition of corals and sediments in the Laguna Madre region to direct future pollution and environmental studies. 3. Determine if sediment resuspension/boating activities along the coast of South Texas contribute to PAH contents of corals.
What makes this project a good investment for the state or institution?	Due to increasing environmental stressors along the South Texas coast, n-alkane and PAH contents of corals and associated sediments would provide valuable baseline data to enhance our understanding of the impact of some of these pressures on such ecosystems. This proposed work would not only expand our capacity to study the chemistry of corals and contribute to other important coastal research projects, it would also help direct our future efforts in studying and managing habitats along the Texas coast.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 3,424
Operating Expenses	$ 11,821
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 15,245**

Title	Analysis of Mobile Devices Forensics Tools
Description	Due to increasing environmental stressors along the South Texas coast, n-alkane and PAH contents of corals and associated sediments would provide valuable baseline data to enhance our understanding of the impact of some of these pressures on such ecosystems. This proposed work would not only expand our capacity to study the chemistry of corals and contribute to other important coastal research projects, it would also help direct our future efforts in studying and managing habitats along the Texas coast.
Purpose/Intent	The goal of this research has three main objectives: the first one is to create a cookie where personal information can be stored; the second objective is the creation of a link within a webpage that allows the download of a malicious program; and the final objective is the creation of a program that can manipulate the information stored in the cookie. The research hypothesis is that cookie files are susceptible to espionage that could result in identity theft.
What makes this project a good investment for the state or institution?	This is a good investment because It has been demonstrated that security is not the top priority for computer users. The research hypothesis is that cookie files are susceptible to espionage that could result in identity theft. The goal of this research has three main objectives: the first one is to create a cookie where personal information can be stored; the second objective is the creation of a link within a webpage that allows the download of a malicious program; and the final objective is the creation of a program that can manipulate the information stored in the cookie.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 19,117
Operating Expenses	$ 4,647
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 23,764**

Title	Characterization of the long-term suppression of feeding behavior produced by aversive stimuli in the marine mollusk Aplysia californica
Description	In the marine mollusk Aplysia californica, exposure to aversive stimuli known to produce long-term enhancement of defensive responses (long-term sensitization; LTS), also leads to a long-lasting (24 h) suppression of feeding behavior. This project will characterize the long-term suppression of feeding at both behavioral and cellular levels and examine its relationship with LTS.
Purpose/Intent	The purpose of t his project is it will characterize the temporal dynamics of the suppression of feeding to compare it with the time course of LTS; will examine the time course of the change in B51 excitability and determine its relationship with the time course of the suppression of feeding; will determine whether application of 5-HT is also capable of inducing long-term suppression of feeding and the underlying change in B51 excitability.
What makes this project a good investment for the state or institution?	The goal of this project is to further characterize the suppression of feeding and to determine its relationship with LTS. Therefore it is a good project because The outcomes from the proposed objectives will improve the understanding of the fundamental mechanisms by which environmental stimuli trigger specific behavioral responses.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 28,465
Operating Expenses	$ 5,394
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 33,859**

Title	Ecological Investigations of the South Texas Banks
Description	This project will focus on the ecology of the South Texas Banks, a series of offshore banks located on the south Texas continental shelf. The South Texas Banks support many commercially and recreationally important fisheries (red snapper, groupers, tunas, pelagic sharks), yet their ecology is poorly known. We will focus on reef fish community structure, benthic invertebrate assemblage, and food web structure of the overall community by conducting remotely operated vehicle (ROV) video surveys, specimen collections, and seafloor mapping on Baker, North Hospital, and Southern Banks.
Purpose/Intent	purpose of this project is to; 1. Conduct quantitative ROV video transects at three depth zones to document reef fish communities, abundance, and biomass on Baker, North Hospital, and Southern Banks. 2. Collect high-resolution digital still images and voucher specimens with the ROV to document the taxonomic composition of fish and benthic invertebrate assemblages of the South Texas Banks. 3. Process existing multibeam bathymetry data with the Benthic Terrain Modeler module of ArcGIS to develop a detailed habitat classification scheme for the South Texas Banks. 4. Evaluate patterns of reef fish diversity, abundance, and biomass to develop a predictive model based on habitat types for deep reefs on the south Texas shelf.
What makes this project a good investment for the state or institution?	This is a good investment because it aims to Provide information on the biology and ecology of the South Texas Banks to support management decisions by state and federal agencies, and encourage research partnerships between HRI, TAMU-CC, and other Texas universities. Provide TAMU-CC graduate and undergraduate students the opportunity to participate in research projects and offshore cruises in the Texas coastal bend region. Provide information for NOAA's "Islands in the Stream" marine protected area (MPA) concept, connecting the network of coral reefs and deep banks of Mexico and U.S. waters.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 8,300
Operating Expenses	$ 11,200
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 19,500**

Title	Nanotechnology: Coral Macrophages Conjugated with Nanoparticles and Their Responses to Cancer Cells
Description	Considering all cells are “warehouses” of nanoscale assembly lines, we hypothesize that coral macrophages may be used to rapidly deliver specific drugs to repair and facilitate normal cell functions and/or eliminate defunct cellular processes. The significance of this new research directive is two-fold; (1) innate coral cells respond within seconds or minutes to a pathogenic invasion (vs. AIS’s which require days, weeks, or months and may play a greater role in bio-defense molecules for bioterrorism; and (2) nanotechnologies offer a “secondary intelligent immune system” of personalized drug delivery and advanced human health care.
Purpose/Intent	The purposes of this study are to (1) identify cell adhesion molecules (e.g. CD2 proteins) on coral macrophages involved with the binding/triggering of other immune functions – a necessity for comparative mammalian immune responses and “memory”; (2) culture coral macrophages ex-situ, binding secondary nanoparticles to primary cell adhesion molecules for drug delivery; and (3) examine the effect of constructed nanoconjugates on cancerous cells.
What makes this project a good investment for the state or institution?	This project is important to the state and the university because development of rapid drug delivering nanoconstructs may be used for new vaccines for both the pharmaceutical industry and for military applications.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 6,126
Operating Expenses	$ 32,046
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 38,172**

Title	NewCRI : A New Community Research Infrastructure for Data Management
Description	This project will build a new community research infrastructure, called NewCRI, which enables researchers to store, manage, analyze, query, visualize, and disseminate multi-dimensional data sets in a variety of related research domains. Historically, environmental, hydrographic, meteorological, and oceanographic data have been collected by numerous local, state, and federal agencies as well as by universities around the world. The problem with this model of piecemeal development is twofold. First, the natural environment does not respect political or administrative boundaries. Second, data collected by different groups cannot be easily combined because their data have not met any standard nor generally been available to users outside the managing agency.
Purpose/Intent	The objective is to build a new community research infrastructure, called NewCRI, which enables researchers to store, manage, analyze, query, visualize, and disseminate multi-dimensional data sets in a variety of related research domains.
What makes this project a good investment for the state or institution?	This is a good investment because existing data processing techniques are inadequate for solving these problems. Through these research activities, the fundamental understanding and novel computing techniques will be provided to support the management of various large-scale multi-dimensional data sets. The methodology and principle developed in this project can be applied to other coastal and data-rich areas. The objective is to build a new community research infrastructure, called NewCRI, which enables researchers to store, manage, analyze, query, visualize, and disseminate multi-dimensional data sets in a variety of related research domains. In particular, as a test bed the data generated from multiple Gulf of Mexico (GOM) related fields will be integrated and stored. Such sources include weather, oceanic and coastal observation, and biological and ecological data ranging from free-text, image, sound, video, and sensor readings to GIS airborne multi-spectral imaging.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 20,754
Operating Expenses	$ 1,495
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 22,249**

Title	Underwater Wireless Sensor Networking: An Enabling Technology for Marine Research
Description	Our objective is to study the unique characteristics and major challenges imposed on the development of marine wireless sensor networks and, accordingly, propose efficient solutions.
Purpose/Intent	Basic and applied research on the development of this unique kind of wireless sensor networks is greatly needed. This motivates us to study the characteristics of such sensor networks and, accordingly, design novel architecture, protocols, and algorithms that offer an infrastructure for the development of these novel platforms. The unique coastal location of TAMU-CC is an ideal environment for the development of a marine wireless sensor network.
What makes this project a good investment for the state or institution?	This project opens the door for a wide range of applications as well as new areas of relevant marine and wireless networking research.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 18,037
Operating Expenses	$ 812
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 18,849**

Title	Vibrio vulnificus strains associated with fish and their potential virulence compared with Texas clinical strains
Description	This research study seeks to determine levels of V. vulnificus on two commonly fished species as well as in the water column and to assess isolates from both for the presence of several virulence genes in comparison to the range of genes found in clinical Texas strains.
Purpose/Intent	This study will provide initial data on potential health risks associated with infections of V. vulnificus from handling fish and contact with estuarine waters.
What makes this project a good investment for the state or institution?	In Texas, commercial and recreational fishing contributes over $5 billion annually to the state economy (National Ocean Service 2008). Incidents of severe and even life threatening V. vulnificus wound infections acquired during fishing activities have been widely reported in the news media, causing major concern to the public about the potential danger involved in such activities and potentially leading to industry losses. This project will identify whether the organism is present on fish and thus poses a health risk to Texas fishermen handling the surface of commonly caught species.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 19,456
Operating Expenses	$ 8,894
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 28,350**

Title	EARDA	
Description	Graduate student assistantships to assist faculty writing proposals	
Purpose/Intent	To provide support to faculty and increase opportunity for funding	
What makes this project a good investment for the state or institution?	The more proposals we can submit, the better our chance of receiving federal funds which impacts the state and the nation as research impacts all.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 2,080
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 2,080**

Title	An Analysis of Vertical Sediment Grain-Size Profiles of Beach Ridge Dunes	
Description	Purchase of equipment for Geosciences Research	
Purpose/Intent	To allow faculty to conduct research	
What makes this project a good investment for the state or institution?	Equipment is necessary to continue research and remain competitive for Federal Funding	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 4,950
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 4,950**

Title	Botryococcus Braunii
Description	The study investigates the advanced culture of Botryococcus braunii in the laboratory. Cultures of Botryococcus braunii isolated from the wild will be grown in different media types, photoperiods, temperature regimes and other environmental factors to determine optimum growth conditions for the four unique strains that have been isolated in my laboratory
Purpose/Intent	The purpose of this research is in the production (through culturing) and extraction of a renewable source of energy (oil) from the green alga, Botryococcus braunii.
What makes this project a good investment for the state or institution?	The potential funding and notoriety for the successful completion of this project to produce a renewable transportation fuel will be a benefit to students, the University, and society, as a whole.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 2,127
Operating Expenses	$ 2,777
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,904**

Title	Biofuels	
Description	The study of Algae and it's potential for Biofuel use	
Purpose/Intent	To investigate the probability of using algae to create biofuels	
What makes this project a good investment for the state or institution?	The nation is currently in a fuel crisis. We need to find alternative fuel sources. Investigations into alternative fuel is critical to the nation.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 4,310
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 4,310**

Title	Thermal Imaging Using Infrared Camera
Description	This study aims to develop a thermal imaging system and algorithms for detection of objects of interest
Purpose/Intent	To investigate detection of objects that radiate at different spectral signatures, and the 2D and 3D modeling capabilities of the system to be developed
What makes this project a good investment for the state or institution?	There are many applications, such as homeland security, medical imaging, forensics, environmental monitoring, that could benefit from new techniques to solve the existing problems. This project aims to add a new capability to the institution to pursue the solutions to problems in these fields.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 2,532
Operating Expenses	$ 2,489
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,021**

Title	Experimental Investigation of Air Plasma & Nitrogen Oxide Characteristics of Plasma
Description	Atmospheric plasma device system is investigated through optical emission spectroscopy and NO and/or (NOx) characteristics using gas chromatography. This plasma device is used in two modes. In this proposed research systematic plasma and NO diagnostics will be carried out to map the characteristics of the plasma medical device.
Purpose/Intent	In the first ‘‘hot mode’’ plasma jet is used for rapid coagulation and sterilization of wound surfaces, destruction and desiccation of dead tissue and pathologic growths, dissection of biological tissues. In the second ‘‘cold mode’’ NO-containing plasma gas flow with temperature of 20–40 deg C is used for stimulation of regenerative processes and wound healing.
What makes this project a good investment for the state or institution?	Texas ranks third in the nation for incidence of malignant melanoma, the most deadly of all skin cancers, suggesting the urgent need for an examination of the problems of prevention and treatment of skin cancer in Texas. Our proposed research could potential play a game changing role in skin cancer treatment methodologies currently used in practice.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 2,311
Operating Expenses	$ 5,421
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 7,732**

Title	EARDA	
Description	Graduate student to assist faculty writing proposals for NIH	
Purpose/Intent	To provide support to faculty and increase opportunity for funding	
What makes this project a good investment for the state or institution?	The more proposals we can submit, the better our chance of receiving federal funds which impacts the state and the nation as research impacts all.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 57
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 57**

Title	EARDA	
Description	Graduate student to assist faculty writing proposals for NIH	
Purpose/Intent	To provide support to faculty and increase opportunity for funding	
What makes this project a good investment for the state or institution?	The more proposals we can submit, the better our chance of receiving federal funds which impacts the state and the nation as research impacts all.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 1,827
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 1,827**

Title	Grant Writer	
Description	Hire a grant writer for the College of Nursing grant overload.	
Purpose/Intent	Tp provide best chances for funding to the research of the College of Nursing.	
What makes this project a good investment for the state or institution?	The more proposals we can submit, the better our chance of receiving federal funds which impacts the state and the nation as research impacts all.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 4,125
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 4,125**

Title	Hybrid Renewable Energy Platform
Description	A new proposed mechanism for harnessing the potential energy of open ocean waves for fixed platforms and the procedures of efficiently converting this energy into electricity is investigated. Unlike many of the already proposed designs that utilize linear generators, this project exposes some light on the idea of rotational conversion using ocean waves to make use of most-readily available generators. In the second phase of this project, the hybrid operation and integration issues with other energy generation units such as wind turbines are planned to be investigated
Purpose/Intent	The project's main goal is to help contribute exploration and development of renewable energies that make alternative use of existing oil and natural gas platforms in Federal waters.
What makes this project a good investment for the state or institution?	The Gulf of Mexico alone has over 4,000 oil rigs that are destined for decommissioning over the next century. This might happen even an earlier date when those platforms don't make a business case for oil and natural gas production.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,902
Operating Expenses	$ 800
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,702**

Title	Expressive Writing and Domestic Violence Survivors: A Cross-Cultural Study of Two Texas Counties (Tarrant and Nueces)
Description	To create writing workshops in Corpus Christi Women's Center where textual data will be collected from participants. Also setting up interviews to collect more data from women's experiences in the shelter.
Purpose/Intent	To Study women in shelters and how expressive writing aids them in their transition from violent to non-violent lifestyles.
What makes this project a good investment for the state or institution?	This project would be a good investment by the university because it gives an inside look at how women use writing to deal with the violence they have encountered in their lives.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 5,556
Operating Expenses	$ 5,378
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 10,934**

Title	The Temporal Nature of Consciousness and the Formation of Human Identity
Description	This documentary film is designed to explore ways in which the temporal nature of consciousness affects the formation of human identity. The film will draw together a fascinating array of experts in various fields and weave together their interviews to create a thematically connected whole that explores this topic from diverse perspectives. The process of creating the film will also result in a series of uncut interview transcripts that will be made available online for continued research purposes.
Purpose/Intent	1. The creation of an informative documentary film exploring ways in which the temporal nature of consciousness affects the formation of human identity. 2. The creation of a web-hosted interview archive containing uncut interview transcripts.
What makes this project a good investment for the state or institution?	Successful completion of this project will create further funding opportunities for the continued creation of documentary content through Texas A&M – Corpus Christi. This film, and others, can be funded through a wide variety of grant sources. These sources include, but are not limited to, the National Endowment for the Humanities (which offers media development grants, media production grants, and a research award for universities with high Hispanic enrollment), the National Endowment for the Arts (which offers grants for arts on the radio and television), the Independent Television Service (which offers research, development and production grants), the Paul Robinson Fund For Independent Media, the Anthony Radziwill Documentary Fund, the Author Vining Davis Foundation (which offers a Public Television capstone grant), the Chicago Underground Film Fund and the Creative Capital Fund.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 11,590
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 11,590**

Title	Self-Sustained Oscillatory Model of Rhythmic Tapping
Description	Develop a mathematical model of self-sustained oscillators that capture the rhythmic movements involved in tapping behavior.
Purpose/Intent	Research has shown a relation between reading ability and rhythmic coordination in children and adults. We want to determine whether and how the mathematical changes as a function of tapping frequency.
What makes this project a good investment for the state or institution?	This project would be a good investment because it provides useful information on reading ability and how it is a direct function of rhythmic coordination.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,295
Operating Expenses	$ 14,245
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 15,540**

Title	Validation the Goal Attainment Scale of Stabilization (GASS)
Description	This project will address the following specific aims: (a) Validation of the GASS using exploratory and confirmatory procedures to establish an instrument to measure therapeutic goal attainment among adolescents in crisis residence. (b) Establish predictive evidence of the GASS through the identification of patient readmissions by examining the correlation between therapeutic goal attainment, as measured by the GASS, and client readmission within six months of the initial treatment. Higher scores of therapeutic goal attainment should correlate to decreases in readmission rates. As a result of validating this instrument, acute care psychiatric programs for adolescents may have a framework of specific therapeutic goals that contribute to clients' stabilization and success.
Purpose/Intent	The purpose of this study is to validate the Goal Attainment Scale of Stabilization (GASS) for adolescents who are hospitalized in an acute care psychiatric program. Balkin (2004) and Balkin and Roland (2005, 2007) identified that progress toward specific therapeutic goals pertaining to (a) problem identification, (b) coping skills, and (c) commitment to follow-up upon discharge from the hospital predicted positive stabilization outcomes as identified by stabilized symptoms and behaviors of adolescent clients. As a result, acute care psychiatric programs for adolescents may have a framework of specific therapeutic goals that contribute to clients' stabilization, thereby addressing keys strategies of the NIH Strategic Plan of "develop[in] new and better interventions for mental disorders that incorporate the diverse needs and circumstances of [adolescents] with mental illness" (NIH Strategic Plan, Strategy 3) and "strengthen[in] the application of mental health interventions in diverse care settings by examining…delivery approaches and how they may affect intervention outcomes" (NIH Strategic Plan, Strategy 3.3). The overall objective of this project is the instrument validation of the GASS. Through previous studies, evidence of test content (Balkin, 2004; Balkin & Roland, 2007) and relationship to other variables (Balkin, 2004; Balkin & Roland, 2007; Balkin et al., 2008) was established. While preliminary analyses of internal structure are promising (Balkin & Roland, 2005, 2007), larger sample sizes are necessary to establish norms and analyze factor patterns.
What makes this project a good investment for the state or institution?	Obtaining evidence that the GASS may be used as an effective protocol for identifying adolescents who are at-risk for recidivism is essential for accountability in mental health counseling. However, the establishment of an instrument that demonstrates stabilization for adolescents in crisis may not be limited to best practices in adolescent acute care psychiatric hospitalization. The outcome of this study will have significant impact related to expenditures for mental health treatment in the United States. Specifically, the third aim of this study--predictive evidence of the GASS will be demonstrated through the identification of patient readmissions—will address the problem identified by Rinsley (1990) through reducing hospital re-admissions due to the provision of evidence indicating the relationship between higher therapeutic goal attainment and fewer hospital readmissions. Future research may also be expanded to establish
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 9,833
Operating Expenses	$ 586
Staff Benefits	$ 0
Capital Expenditures	$ 0

Total	**$ 10,419**

Title	Engaging Barbary: Race, Islam, and Form in the Secular Republic
Description	This study aims to demonstrate that in concert with the emergence of scientific rationality, political upheavals throughout the Atlantic world, and increasing fragmentation of the Christian church, secularism arose as a flexible ideology associated with the nation-state, imperialism, and political subjectivity.
Purpose/Intent	To provide US depictions of North Africa and Islam during the 60 years following the revolution-in legal, geographical, narrative and ethnographic texts-were tied to broader debates about secularism and its presumptive outcome.
What makes this project a good investment for the state or institution?	This research will provide research outcomes that religion is progressively, perhaps inevitably, receding from the world.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 5,389
Operating Expenses	$ 275
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,664**

Title	Photosynthesis and Respiration Rates of Estuarine Plants, including Seagrass and Microalgae	
Description	This study is designed to assess photosynthetic and respiration rates of seagrass and microalgae. The goal was to measure oxygen evolution to determine annual productivity cycles.	
Purpose/Intent	To provide the first annual assessment of primary productivity in local seagrass and microalgae.	
What makes this project a good investment for the state or institution?	Microalgae serve as the first level of plant production that drives shrimp and fish growth. Understanding dynamics of the microalgae is essential to predicting fishery sustainability.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 18,204
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 18,204**

Title	Student Support/NIH Submission	
Description	Support Graduate Student conducting data collection for research	
Purpose/Intent	To provide Graduate Student to gather data to be used in external research proposals by faculty members in the College of Science and Technology.	
What makes this project a good investment for the state or institution?	Supporting more proposals to federal agencies is a goal of TAMU-CC.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 1,192
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 1,192**

Title	UAV Initiative
Description	The objective of the funded effort is to establish an Unmanned Aerial System operational capability at Texas A&M University – Corpus Christi. The UAS provides several advantages over alternative monitoring platforms, such as: low altitude aerial observation, long endurance operations, and flexible deployment to areas of interest.
Purpose/Intent	This capability is strategically valuable for supporting current and near term applied research efforts at TAMUCC over a wide range of areas. These research areas include, as examples, ocean and atmospheric monitoring, modeling and prediction; monitoring and modeling of inland systems; monitoring and modeling of high intensity weather systems; incident management; and security.
What makes this project a good investment for the state or institution?	The successful completion of this project is a critical step in establishing an unmanned vehicle capability at TAMUCC. The uniqueness of this new capability serves as a powerful tool for researchers competing for funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 19,152
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 19,152**

Title	EARDA Student	
Description	Graduate student to assist faculty writing proposals for NIH	
Purpose/Intent	To provide support to faculty and increase opportunity for funding	
What makes this project a good investment for the state or institution?	The more proposals we can submit, the better our chance of receiving federal funds which impacts the state and the nation as research impacts all.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 1,800
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 1,800**

Title	Grad Student Research Stipends	
Description	Fund Graduate Students	
Purpose/Intent	Allow graduate students to gather data to be used in external research proposals by faculty members	
What makes this project a good investment for the state or institution?	Increase opportunities for federal submissions and awards.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 1,800
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 1,800**

Title	Characterization of comparison of S Texas environmental and clinical strains of pathogen
Description	The study characterizes strains of the marine pathogen, Vibrio vulnificus, isolated from south Texas waters and oysters and compare them with Texas clinical strains, standard strains from the American Type Culture Collection (ATCC), those from other environments (South Carolina) and with isolates described in published reports. A range of approaches will be used including biochemical and antibiotic resistance analyses, growth parameters and molecular analyses.
Purpose/Intent	To assess the heterogeneity of environmental V. vulnificus strains in south Texas waters, compare them to clinical strains and determine if previously undescribed strains or biotypes may exist in this area and if environmental strains exhibit similar or different characteristics from strains isolated from Texas patients.
What makes this project a good investment for the state or institution?	Vibrio vulnificus is a marine bacterium that causes wound infections and disease through consumption of contaminated seafood. In 2006 alone, 22 cases of V. vulnificus infections were reported in Texas, of which 95% were hospitalized and 41% died (TDSHS 2007). The organism is widespread for most of the year in coastal waters of S. Texas. The information gained from this study will provide data for proposals to federal agencies, and provide public health information, including potential virulence and diversity of the strains found in Texas waters and possible use of the organism as a bio-indicator of anthropogenic effects on the environment based on antibiotic resistance level
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 62
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 62**

Title	S&T-MARB/CMSS Assistantships
Description	Provide Graduate Assistants with opportunities to assist with teaching about research methods on campus and to participate in various research projects.
Purpose/Intent	To cultivate a stronger research environment for students at TAMUCC, particularly relating to Marine Biology and Coastal Marine System Sciene, and develop preliminary studies that can then be submitted for federal funding.
What makes this project a good investment for the state or institution?	To increase awareness and interest in research participation to leverage for federal funding to the state of Texas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 223,468
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 223,468**

Title	Harte Assistantships
Description	Provide Research Assistants to assist with various research projects, particulary relating to Gulf of Mexico studies.
Purpose/Intent	To gather data and develop preliminary studies that can then be submitted for federal funding.
What makes this project a good investment for the state or institution?	To increase ability to submit proposals to federal agencies and increase federal dollars to the state of Texas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 73,083
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 73,083**

Title	Gulf of Mexico Environmental Studies	
Description	To provide support for Gulf of Mexico studies by way of funding student researchers.	
Purpose/Intent	Increase ability to submit proposals to federal agencies.	
What makes this project a good investment for the state or institution?	Increase potential for federal dollars to the State of Texas.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 24,056
	Operating Expenses	$ 249
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 24,305**

Title	Center for Coastal Studies Research Funding	
Description	To provide student support for Research Center.	
Purpose/Intent	To increase data collection/analysis and prepare preliminary projects for submission to federal agencies.	
What makes this project a good investment for the state or institution?	To increase potential for federal funding to the State.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 16,720
	Operating Expenses	$ 22,874
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 39,594**

Title	Research Supplement Fund	
Description	Established to assist faculty with presenting, publishing, or other incidentals involved with increasing research capacity.	
Purpose/Intent	To position TAMU-CC faculty to be more competitive with federal proposals.	
What makes this project a good investment for the state or institution?	To increase federal dollars coming to Texas.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 7,080
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 7,080**

Title	Science and Technology Research Support	
Description	To provide support for faculty in the College of S&T by employing graduate students to assist with research development.	
Purpose/Intent	Graduate students work with faculty on various research projects to bring them to a level that would be competitive for federal proposals.	
What makes this project a good investment for the state or institution?	To increase federal dollars coming to Texas and TAMU-CC.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 46,228
	Operating Expenses	$ 4,673
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 50,901**

Title	Office of Sponsored Programs Support	
Description	To support the Office of Research and allow assistance for faculty who are preparing proposals. This office assists with finding funding opportunities, proposal submissions and post award accounting.	
Purpose/Intent	To oversee all phases of proposal submission and management to make TAMU-CC more competitive for federal dollars and to ensure compliance with federal regulations.	
What makes this project a good investment for the state or institution?	Investing in Sponsored Programs is imperative to building research at TAMU-CC and Statewide.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 165,093
	Operating Expenses	$ 27,146
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 192,239**

Title	Carried Over	
Description	Several projects were awarded late in FY2010 and were allowed to continue spending through FY2011.	
Purpose/Intent		
What makes this project a good investment for the state or institution?		
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 389,822
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 389,822**

Title	Citrus Center
Description	Salary and operating support for this large research component of the university.
Purpose/Intent	The Citrus Center provides research and service support to the multimillion dollar Texas citrus industry and develops future leaders through academic training of graduate students. It focuses on citrus variety development, pest and disease control, plant physiology, soil science and irrigation technology.
What makes this project a good investment for the state or institution?	The Citrus Center represents the major source of research for the Texas citrus industry. Over 1,900 industry jobs are currently provided, and increased plantings resulting from acreage reduction in Florida caused by disease, weather and urbanization, will provide increased employment opportunities.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 324,842
Operating Expenses	$ 36,105
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 360,947**

Title	COLLEGE OF AG-Caesar Kleberg Wildlife Research Institute.
Description	Salary support for Caesar Kleberg Wildlife Research Institute and start-up funding for new faculty in the Dick and Mary Lewis Kleberg College of Agriculture, Natural Resources and Human Sciences.
Purpose/Intent	Help offset Caesar Kleberg Wildlife Research Institute's FY10 shortfall in endowment earnings. The Caesar Kleberg Wildlife Research Institute at Texas A&M University-Kingsville is the leading wildlife research organization in Texas and one of the finest in the nation. Its mission is to provide science-based information for enhancing the conservation and management of wildlife in South Texas and related environments.
What makes this project a good investment for the state or institution?	The faculty and students of the CKWRI have long-standing, trusted relationships with private landowners on whose land they conduct research. An abiding respect for private landowners and the work they have done to protect wildlife and habitat is the hallmark of the Caesar Kleberg Wildlife Research Institute. In fact, the Institute works with hunters, wildlife managers, conservationists and policy makers alike to provide scientific research that is used to manage and conserve game and non-game species.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 728,551
Operating Expenses	$ 9,139
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 737,690**

Title	Nanoparticles
Description	Surface Functionalization and Study of Disinfection Mechanism of Nanoparticles
Purpose/Intent	
What makes this project a good investment for the state or institution?	Start-up funding enabled new faculty to compete for grants and research projects.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 5,160
Operating Expenses	$ 4,158
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,318**

Title	Prevalence and characterization of methicillin resistant Staphylococcus aureus (MRSA) in university athletes
Description	Staphylococcus species are Gram positive bacteria that have been the causative agents of serious infections for a very long time. Penicillin had been the antibiotic of choice until the infectious agent became resistant to this drug and doctors began to treat the S. aureus infections with methicillin (a relative of penicillin). More recently, methicillin-resistant S. aureus (MRSA) has become a major problem not only in the hospital setting, but also in the community.
Purpose/Intent	Start-up funding for new faculty allowed work on projects, including development of peer-reviewed publications and applying for a Federal grant, attending research conferences and professional development sessions.
What makes this project a good investment for the state or institution?	This research project is preliminary research to a larger project(s) that have the potential to decrease or slow down the spread of MRSA infections among university athletes at TAMUK, as well as bring in larger amounts of funding through external grants.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,595
Operating Expenses	$ 237
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,832**

Title	Assessment of the Bryoflora of South Texas
Description	While many counties in South Texas are in need of intense study, my research is focusing on two major areas at this time. The first being in counties where access is available and where initial studies have yielded results indicating that further work would be fruitful and second, in counties having no collections but where I have recently been given access to private property by students in my classes. The counties identified for this study are Cameron, Uvalde, Duval and Brooks. Collection of specimens from Cameron County has already been started while collection from the other counties will begin shortly. Cameron County is being impacted by the construction of the border fence which is anticipated to bisect one of the last Sabel Palm Groves in the United States and has already been the site of at least one moss and one liverwort collection yet to be identified. Collections will be made by inspection (see a moss and pick it up!) and care will be taken not to deplete the sample from an area. GPS coordinates will be obtained at the time of collection to ensure that the population can be relocated at a future date. Specimens will be returned to the lab for identification and documentation and will be accessioned into the TAMUK bryophyte collection with duplicate specimens being deposited in an appropriate herbarium.
Purpose/Intent	The bryophyte diversity in South Texas is possibly one of the least known in the United States if not the world. This may be because when most people think of mosses they do not think of areas such as South Texas as the environment one would expect to find these organisms. The conditions are much harsher than where bryophytes are found in abundance. While it is true that the biomass of mosses in South Texas is much lower than in other parts of the world, the mosses found are some of the least collected. In the past two years, studies in my lab have yielded 3 species new to the state with several other collections that have, as of yet, have eluded identification. Another possible explanation for the dearth of study in South Texas is that most of the land is privately owned and inaccessible for study.
What makes this project a good investment for the state or institution?	The results of this study will be submitted for publication in one or more of the following journals depending on the significance of the information obtained by the study - Evansia, The Biologist, Texas Journal of Science, and/or Bryological Times. Presentations may be given at the Annual Meetings of the Texas Academy of Science and/or American Bryological & Lichenological Society.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 750
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 750**

Title	Ephemeral Creeks and the Pleistocene Sand Sheet; Effects on the Population Genetics of Aquatic and Semi-aquatic Reptiles and Amphibians in South Texas.
Description	This project will investigate the genetic diversity of aquatic and semi-aquatic amphibians and reptiles (including species associated with riparian habitats) in south Texas. South Texas creeks and streams are intermittent at various times throughout the year and can have tremendous variability in salinity and temperature. In addition, many of these waterways also incorporate effluent outflow from water sewage treatment facilities. The south Texas geographic region is also unusual in that it encompasses the Pleistocene Eolian Sand Sheet; defined by a large sheet of sand blown inland from the Gulf of Mexico during the Holocene period (~ 11 thousand years ago) that covers most of Kenedy and Brooks counties. For species that are associated with water habitats, the above geographic features can have major effects on population genetics and can also act as major reproductive isolation barriers.
Purpose/Intent	1) Determine the degree of gene flow within and between populations of these species. 2) Determine the effects of temperature and salinity variability within and between associated waterways on species population and distribution. 3) Determine the effects of ephemeral Creeks on species population, distribution, and reproductive isolation. 4) Survey peripheral locations for any previously unidentified populations and suitable habitat where these species may occur.
What makes this project a good investment for the state or institution?	The research being performed will allow the PI to publish the data obtained, as well as enhance research developed for future external grant proposals.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,160
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,160**

Title	Study of the Antarctic Ice Margin Change and Topography
Description	This project proposes to employ state-of-the-science satellite data and computational techniques to analyze the changes of Antarctic ice margins over 30 year period from 1960's to 2000's and to characterize topographic characteristics of ice margin features providing valuable information about the boundary condition.
Purpose/Intent	This project aspires to determine the advance, retreat, and net change rates of the Antarctic ice margins at the continental scale by comparing coastlines from 2000, 1997, and 1963.
What makes this project a good investment for the state or institution?	This project will provide many opportunities in terms of external grants as well as academic journal publications due to its impact and importance to scientific knowledge and potentially even to better understanding of the future human civilization.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 2,940
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 2,940**

Title	Design and Synthesis of Single-component Organic Conductors
Description	Organic electronic materials, including organic conductors, are promising for making the next generation displays and solar cells. The common organic conductors, or the charge-transfer salts that require two components-an electron donor and an electron acceptor, are not suitable for the integrated circuits due to the difficulty in depositing the two components simultaneously and stoichiometrically. In this respect, highly conducting single-component organic conductors are required.
Purpose/Intent	The purpose of this project is to design and synthesis of a single-component organic conductor suitable for the low cost, large area and flexible organic electronics and solar cells.
What makes this project a good investment for the state or institution?	The successful implantation of the project will have an immediate impact on the new technology based on organic electronic materials. These materials are essential for making next generation displays and organic solar cell. The effort of harvesting solar energy not only benefits our institution and our state, but is also important to the future of the country. The ability to synthesize and crystallize novel organic conductors also bears tremendous interest in scientific community, encouraging the discovery of new phenomena in condensed matter systems and advance the research in strongly correlated spin-charge systems.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 9,940
Operating Expenses	$ 2,191
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 12,131**

Title	The effects of ozone on the brain and retina
Description	The photochemical oxidant ozone (O3) is a major gas component of urban air pollution. Even though progress has been made in the improvement of US air quality, approximately 50% of the US population lives in areas where O3 levels exceed the National Ambient Air Quality Standard (NAAQS). Effects of O3 exposure are not limited to the cardiovascular system since inhaled O3 can reach the central nervous system. A number of O3- mediated neuronal dysfunctions have been reported. Central nervous system effects include decreased motor activity, neurochemical alterations, sleep disturbances, headache, cellular degeneration, and impaired mental performance. The effects of environmental pollutants, including O3 exposure on differential brain and retina gene expression, have not been systematically examined, and the mechanisms responsible for O3 -induced injury are still not fully understood. Of particular interest is the role of O3 –mediated oxidative stress in the development of diabetic retinopathy and macular degeneration.
Purpose/Intent	The purpose of this study is two-fold; i) to investigate differential gene expression in selected mammalian brain areas and the retina of control and treated animals and ii) to test the hypothesis that ozone enhanced damage, is due to increased oxidative stress levels as well as inflammatory mediator production. I propose one of the O3 –mediated mechanisms of action is by initiating intracellular oxidative stress that likely activates gene transcription through redox signaling pathways that play a role in injury, repair and associated responses to the oxidant
What makes this project a good investment for the state or institution?	To the best of my knowledge, this work will result in two significant findings. i). A report on the immediate impact of O3 exposure on gene expression response profiles in the central nervous system. The gene expression data will elucidate the O3-induced pathophysiology mediated by differential activation of genes predominately distributed in two groups: cell proliferation and circadian regulation of metabolic events. The induced genes may ultimately result in the development of biomarkers that can be screened using noninvasive methods. ii). The biochemical results will link pro-inflammatory and anti-inflammatory molecules in the retina relevant to the mechanism of action of a compounding effect of ozone pollution to retinopathies and macular degeneration, two of leading causes of blindness in the United States. I speculate that the next step, upon completion of this work, is to identify compounds able to block the pro-inflammatory pathways in order to ameliorate the progression of the retinopathies and in some cases, avert the condition before sight is lost.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 4,730
Operating Expenses	$ 3,674
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 8,404**

Title	Understanding a Native Invader
Description	Plant invasions can change ecosystems at all spatial and temporal scales, from the rate at which essential nutrients cycle to the frequency and intensity of disturbances that govern patterns of biodiversity.
Purpose/Intent	The objective is to examine the effects of tanglehead invasion on breeding birds in grasslands by quantifying changes in community composition, population sizes, and reproduction of grassland birds.
What makes this project a good investment for the state or institution?	The research will yield information and improved understanding about how a native invader affects the composition of the grassland bird community, abundance, and individual bird species, and characteristics of the plant community. This will provide the basis for at least two peer-reviewed manuscripts, a Master's thesis, as well as management recommendations and associated articles.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 14,400
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 14,400**

Title	Investigation of a fuel cell vehicle
Description	The depletion of fossil fuel poses significant security, environmental, and economic risks in terms of sustainability of transport and energy systems. Hydrogen economy is highly appreciated and has become a critical alternative energy carrier to compensate dwindling supplies of petroleum as well as provide energy dependence to countries without oil resources.
Purpose/Intent	The goals are to establish a Fuel cell core group in the region of South Texas based at TAMUK, increase national energy security, and reduce environmental pollution.
What makes this project a good investment for the state or institution?	This will provide educational opportunities on multidisciplinary concepts through training qualified personnel. The success criteria for the education objective will allow a graduate student to complete his/her master degree in chemistry and then bridge this graduate to pursue his/her PhD. study.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 9,688
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,688**

Title	Carried forward to FY 2011	
Description		
Purpose/Intent		
What makes this project a good investment for the state or institution?		
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 0**

Title	Center for Bio-nanotechnology and Environmental Research (C-BER) - a National Aeronautics and Space Administration (NASA) University Research Center (URC)
Description	The NASA Center for Bionanotechnology and Environmental Research was established October 1, 2008 with capital funds provided by NASA's office of Education, to address important environmental and human health concerns related to manned exploration of space. Astronauts are exposed to a wide variety of environmental hazards while in space, including radiation, microgravity, and microorganisms. These hazards present critical barriers to long-term missions. They also constitute some of the major initiatives within the NASA research programs. Research of CBER seeks to identify and understand the risks associated with these factors and to design countermeasures to mitigate these risks. We also investigate the additive, synergistic, antagonistic, and confounding effects of microgravity and radiation on living organisms. The research of CBER is closely related to NASA's Exploration Systems Directorate (ESD) and is relevant to all of NASA's mission directorates. NASA C-BER is organized into four main Thrusts: Radiation and Microgravity, Space Microbiology, Biosensors, Bioinformatics, and Bionanotechnology, and Workforce Development which provides training opportunities for students, postdoctoral fellows, and faculty.
Purpose/Intent	NASA C-BER has employed at team of faculty from the departments of Biology, Chemistry, Mathematics, and Colleges of Business, Education, Law, and Public Affairs to support outcome one of the NASA Educational framework, which is to educate, employ and engage. The team builds strategic partnerships with educational and commercial institutions, along with government employees, to train and educate students and postdoctoral fellows. NASA C-BER integrates molecular biology, bioinformatics, bionanotechnology with chemical and biochemical analysis to address important environmental and human health concerns related to manned exploration of space. Techniques for detecting, monitoring and controlling microorganisms will be developed; and the effects of microgravity, radiation and other space travel-induced stress factors on living organisms will be investigated with the intent of developing countermeasures. Overall we shall develop a future workforce in STEM fields, improve TSU's research infrastructure and innovative partnerships, enhance astronaut and autonomous medical care, enhance technology transfers and commercialization, and improve quality of life on earth.
What makes this project a good investment for the state or institution?	The center provided direct support for 28 students (graduate and undergraduates) through its fellowship, scholarship and internship programs. In addition our center supports many other volunteer students indirectly. Center faculty and other invited professionals provided research training, workshops, seminars and mentoring to the students. In 2009, students at the center led a space flight experiment called the URC Microbial 1. We seek to improve existing technologies, and generate new inventions that increase speed and accuracy while decreasing cost. One provisional patent application was filed. New technology developed or advanced will educate and drive the perception of what is possible in the realm of Space Life Sciences. In this current effort we will develop advance technology to enable novel solutions to the great health challenges facing humans during long -term exploration missions. Research at C-BER is providing participants (many belong to groups that are underrepresented in STEM) with training in the research thrust areas that is fundamental for improving the competitiveness of the participants in

	joining the workforce of NASA and other research institutions with scientific settings that are becoming more computationally intensive and increasingly focusing on astrobiology, nanotechnology, biosensors, and bioinformatics.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 247,500
	Salaries/Wages for Existing FTEs	$ 157,500
	Operating Expenses	$ 350,708
	Staff Benefits	$ 77,625
	Capital Expenditures	$ 0
	Total	**$ 833,333**

Title	Faculty Startup	
Description	Research Equipment	
Purpose/Intent	Fund research equipment	
What makes this project a good investment for the state or institution?	Funding state of the art equipment allows us to recruit and retain top faculty to perform research.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 37,000
	Staff Benefits	$ 0
	Capital Expenditures	$ 231,972
	Total	**$ 268,972**

Title	Materials Science and Engineering	
Description	New Graduate Program	
Purpose/Intent	Fund new graduate program until formula funding is fully realized.	
What makes this project a good investment for the state or institution?	This program trains graduate scientists and engineers to perform interdisciplinary research on scale-dependent materials and equip them to emerge as effective leaders in the advancement of 21st century global discovery and innovation.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 87,167
	Operating Expenses	$ 118,348
	Staff Benefits	$ 0
	Capital Expenditures	$ 199,375
	Total	**$ 404,890**

Title	Office of Research Commercialization and Industry Relations	
Description	Center allows Texas State scientist to develop and commercialize their breakthroughs in nanotechnology.	
Purpose/Intent	Center allows Texas State scientist to develop and commercialize their breakthroughs in nanotechnology.	
What makes this project a good investment for the state or institution?	This will allow Texas State to make critical contributions to the nation in the fields of energy, security, and health science.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 72,639
	Operating Expenses	$ 127,395
	Staff Benefits	$ 0
	Capital Expenditures	$ 6,772
	Total	**$ 206,806**

Title	Graduate Research Assistants/Post-Docs	
Description	Fund graduate RA or post-doc positions to support of research efforts.	
Purpose/Intent	Incentivize the development of external research grant proposals.	
What makes this project a good investment for the state or institution?	Promotes scholarly activity, research, invention and innovation, and commercialization.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 472,035
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 472,035**

Title	PROJECT 1 - INDIVIDUAL INVESTIGATOR SUPPORT
Description	Texas Tech University is investing in individual research investigators in an effort to build nationally recognized areas of research excellence.
Purpose/Intent	To enhance the national reputation of research at Texas Tech University and for the state, the university is investing in individual research investigators in select disciplines in an effort to increase extramural research funding and facilitate interdisciplinary research groups and projects. These research development funding (RDF) investments provide unique opportunities for investigators to launch focused research initiatives.
What makes this project a good investment for the state or institution?	One such example is the research group of Dr. Micah Green, an Assistant Professor in Chemical Engineering. His research focuses on scalable processing of nanomaterials for use in a variety of advanced materials, including conductive films and high-strength, lightweight composites. These carbon nanomaterials (such as carbon nanotubes and graphene) are prized for their suite of outstanding properties, but they require careful chemical processing in order to be incorporated into macroscopic devices and materials. Dr. Green is in the middle of his second year at Texas Tech and has been able to leverage RDF investment into federal support from the National Science Foundation (NSF) and through the prestigious Young Investigator Award program of the Air Force Office of Scientific Research. RDF funds were critical for generating preliminary data to secure this federal funding and this distinguished award. Dr. Green's group utilizes both computational and experimental techniques to predict the behavior of carbon nanomaterials during liquid-phase material processing. For instance, his group has recently discovered a technique to create a nano-scale polymer coating on the surface of dispersed graphene without compromising any of graphene's excellent mechanical, thermal, or electrical properties. Dr. Green's group collaborates widely both inside and outside of Texas Tech to expand the group's expertise to influence other fields beyond nanotechnology, such fields include agricultural toxicology, biomolecule phase behavior, and engineered biomaterials. Dr. Green also provides outstanding training for both undergraduate and graduate student researchers in his laboratory, with students making significant contributions to the program. These research activities benefit both Texas Tech and the state of Texas by reinforcing the institution and state's status as leaders in the emerging field of nanotechnology. Another example may be seen in the investment made into the research under Dr. Boyd Butler, Assistant Professor in Biological Sciences. Dr. Butler's group is focused on understanding how the immune system both prevents and eradicates cancer within the body. His lab studies Natural Killer (NK) cells that are the body's first line of defense against cancer. In particular, his research focuses on the molecular motors that allow the NK cells to move within the body using a process termed 'immunosurveillance.' These molecular motors include the protein complex Arp2/3 and the formin family of proteins. Dr. Butler's team has discovered that these individual classes of proteins carry out specific functions that are critical for NK cells to perform their functions which in turn includes finding and killing aberrant cells. The aberrant cells include cancer and virally infected cells. Dr. Butler's research focuses on ways in which NK cells could be enhanced to make them more effective and selective in seeking out and destroying cancer cells. His group utilizes all modern molecular techniques and state of the art

microscopy techniques including spinning disk confocal and total internal reflection microscopy to accomplish these studies. Dr. Butler is currently funded through the National Institutes of Health (NIH) and is leveraging the RDF investment support into further extramural research funding opportunities with NIH and the Cancer Prevention Research Institute of Texas (CPRIT).

Financial

Salaries/Wages for New or Reassigned FTEs	$ 403,602
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 271,306
Staff Benefits	$ 0
Capital Expenditures	$ 258,350
Total	**$ 933,258**

Title	PROJECT 2 - INFRASTRUCTURE RESEARCH SUPPORT
Description	Texas Tech University is strengthening the growth of multidisciplinary and collaborative programs through infrastructure research investment.
Purpose/Intent	Texas Tech University is making key investments into infrastructure research at the university to bolster existing research programs, support the continued growth of multidisciplinary programs, and offer incentives for research productivity.
What makes this project a good investment for the state or institution?	A primary example may be seen in the RDF investment made into the multidisciplinary research group headed by Dr. Shu Wang in Nutrition, which includes experts from the TTU College of Engineering and TTU Health Sciences Center School of Pharmacy. Chronic diseases are the leading causes of death and disability in the U.S. and in Texas. Chronic disease conditions account for 3 out of every 4 deaths in Texas. There is a critical need for a novel and efficient approach to prevent and cure chronic diseases, such as cardiovascular disease, cancer, obesity and diabetes. The linkage between obesity and the onset of cancer is now being realized. Furthermore, obesity has been shown to be a compelling pre-disposing factor for Alzheimer's disease. Natural compounds show promise to remedy chronic diseases, but their low level of bioavailability and targeting in the body makes administering them in therapeutic doses unrealistic. Dr. Shu Wang's group has engineered natural compounds encapsulated in nanoparticles to increase their levels of bioavailability and targeting to specific cells or tissues, with the goal of preventing and reversing the development of chronic diseases. The nanoparticles consist of natural lipids and carbohydrates. Hence, they are biocompatible and biodegradable. The outcome of her research projects is expected to produce dramatic savings in the cost of medical care in the United States and in Texas. Dr. Wang is working closely with TTU Office of Technology Commercialization for patent applications. Dr. Wang's team has also been able to leverage RDF investment into commodity-sponsored support, and is currently working on leveraging these findings for NIH and other federal grant applications. RDF funding investment has also enabled the core facility purchase of an Orbitrap hybrid state-of-the-art mass spectrometer which is being used by a multidisciplinary group headed up by Dr. Yehia Mechref, an expert in mass spectrometry, and new professor in the department of Chemistry and Biochemistry at TTU. This instrument will provide high mass accuracy and resolution in Dr. Mechref's research focused on the development of methods for glycomic and glycoproteomic (sugar and sugar modification of proteins) analyses. Research activities in these areas continue to be highly dynamic and important due to the need to comprehensively understand the biological attributes of glycosylation in many important biological functions such as immune response, cell development, cellular differentiation/adhesion and host-pathogen interactions. Moreover, aberrant glycosylation has been recognized as the attribute of many mammalian diseases such as cancer. These glycomics and glycoproteomics analyses remain analytically challenging due to their high complexity and the manner in which they are processed. The correlation between cancer and aberrant glycosylation has been demonstrated, however, it is not clear thus far if the reported glycan alterations are cancer-type specific or universal. Therefore, Dr. Mechref's research efforts at TTU will focus on (i) the development of much needed

cutting-edge-analytical methods directed toward sensitive and reproducible glycomics and glycoproteomics analyses and (ii) to utilize such analytical tools to define glycan cancer-type predictors. The Orbitrap will allow unequivocal assignment of glycan structures and their association with glycoconjugates involved in disease development and progression. This subsequently should allow the determination of several cancer-type predictors.

This core facility instrument will also be used in many research areas, including high sensitivity proteomics research at TTU and TTUHSC. This investment will strengthen and broaden multidisciplinary collaborative efforts, as well as greatly enhance opportunities for submission for extramural research funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 924,071
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 122,556
Staff Benefits	$ 0
Capital Expenditures	$ 131,633
Total	**$ 1,178,260**

Title	PROJECT 3 - FUNDING CARRIED FORWARD (UB AUTHORITY) INTO FY2011	
Description		
Purpose/Intent		
What makes this project a good investment for the state or institution?		
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 2,756,778
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 2,756,778**

Title	Research Support: Dean - College of Arts & Sciences
Description	Initiative to increase research at Texas Woman's University in the College of Arts & Sciences. Arts & Sciences chose to fund several research projects.
Purpose/Intent	Funds were provided to the Dean of Arts & Sciences to support initiatives in the college. The College of Arts & Sciences invested Research Development Funds for the purpose of assisting with research projects that have the potential for external funding. Funds were allocated to individual and collaborative projects involving faculty in the areas of visual arts, biological sciences, and mental health. Projects focused on areas addressed in the university, college, and departmental strategic plans.
What makes this project a good investment for the state or institution?	These funds assisted faculty to participate in grant development and submission, contributing to faculty and graduate student research and scholarly productivity. Each of the projects supported focused on aspects of Closing the Gaps for the citizens of Texas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 8,411
Staff Benefits	$ 0
Capital Expenditures	$ 4,249
Total	**$ 12,660**

Title	Research Support: Dean - College of Health Sciences
Description	Initiative to increase research at Texas Woman's University in the College of Health Sciences. Health Sciences chose to support several research projects.
Purpose/Intent	Funds were provided to the Dean of Health Sciences to support initiatives in the college. The College of Health Sciences Research Development Fund supported projects through the Departments of Nutrition and Food Sciences and Health Studies. Funds were allocated to individual and collaborative projects involving faculty in the areas of osteoarthritis, nutrition studies, and HIV.
What makes this project a good investment for the state or institution?	Through the use of these funds, the College of Health Sciences supported projects and purchased equipment to enhance research within the College. These funds provided incentives and support for faculty to submit more competitive proposals for external funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 2,997
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 8,239
Staff Benefits	$ 0
Capital Expenditures	$ 7,901
Total	**$ 19,137**

Title	Research Support: Dean - College of Nursing
Description	Initiative to increase research at Texas Woman's University in the College of Nursing.
Purpose/Intent	Funds were provided to the Dean of Nursing to support initiatives in the college. An ongoing goal and strategic plan initiative for the College of Nursing is the demonstration of excellence in scholarship through research activities and application of new knowledge. Faculty in the college were supported to conduct research related to four major themes: 1) Women's Health, 2) Chronic and Behavioral Health; 3) Health Systems and Quality Patient Outcomes; and 4) Strategies for Educating Nurses.
What makes this project a good investment for the state or institution?	As a result of these funds, the College of Nursing funded projects that directly link to the goals and strategic direction of the College of Nursing and the University. These studies yielded important data necessary for pursuing external funding. This source of funds continues to provide faculty with the seed monies necessary to gather initial information that can lead to externally funded projects.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 8,153
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 3,145
Staff Benefits	$ 0
Capital Expenditures	$ 2,179
Total	**$ 13,477**

Title	Research Support: Dean - College of Professional Education
Description	Initiative to increase research at Texas Woman's University in the College of Professional Education.
Purpose/Intent	Funds were provided to the Dean of Professional Education to support initiatives in the college. The College of Professional Education invested Research Development Funds for the purpose of assisting with research projects that have the potential for external funding. Funds were allocated to individual and collaborative projects involving faculty in the areas of reading, child development, early childhood education, teacher education, family studies, library and information studies, and counseling and development. Projects focused on areas addressed in the university, college, and departmental strategic plans. These research projects were focused on such topics as reading and literacy, pre-service preparation of educators and nurses, therapist development, marital stability, adoptive children and foster care, accommodations for students through play therapy, technology applications, and the growth and development of young children.
What makes this project a good investment for the state or institution?	These funds assisted in increasing faculty participation in grant development and submission, contributing to faculty and graduate student research and scholarly productivity, and in promoting cross-disciplinary collaboration. The projects are worthy investments because of their focus on improving access to information, exploring issues of literacy, academic readiness and success, and family and social issues. Each of these particular projects, either generally or specifically, focused on aspects of Closing the Gaps for the citizens of Texas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 6,906
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 8,148
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 15,054**

Title	Targeted Research Fund
Description	The Targeted Research Fund supports faculty research at TWU in targeted research focus areas (currently identified as obesity / diabetes, cancer, and rehabilitation) to increase external funding in these areas.
Purpose/Intent	Funds were provided for the following projects Dr. Michael Bergel, Biology, “To explore the possible protection of mice from skin cancer following the application of HMGN proteins which may provide resistance to harmful, cancer-causing UV light” Dr. Owen Kelly, Nutrition & Food Sciences, “Identify the determining factors that influence lifestyle and nutrition issues, especially in relation to childhood obesity” Dr. Ann Koci, Nursing-Houston, “Relationship among abuse, silencing, and the mental health outcomes of anxiety and depression in women” Dr. Ann Malecha, Nursing-Houston, “Types, frequency, and temporal sequencing of personal stressors reported by baccalaureate nursing students” Dr. Shannon Rich, Psychology & Philosophy, “Development of an obesity prevention program targeted for delivery to future health care providers” Dr. Richard Sheardy, Chemistry & Physics, “Gaining a fundamental understanding of the mechanism of telomerase to develop new anti-cancer drugs that are specific to cancer cells but not to normal cells” Dr. Gayle Sulik, Sociology & Social Work, “Examining the type, strength, and impact of state and local community-based organizations in shaping breast cancer and health policy” Dr. Lisa Zottarelli, Sociology & Social Work, “Disaster preparedness and response in regard to children, pets, and disasters and the rapid assessment of health behaviors during a pandemic.”
What makes this project a good investment for the state or institution?	The funds provide support to faculty for their research including, but not limited to data collection, pilot studies, review of proposals/manuscripts, proposal writing, and assistance with obtaining external funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 35,288
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 9,603
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 44,891**

Title	Research Enhancement Program (Anderson) Making a Better Glutathione Synthetase
Description	These funds were used to support a project submitted to the Research Enhancement Program (REP) (PI: Dr. Mary Anderson, Chemistry). This program provides support to faculty research projects in the form of seed money so faculty members will be able to successfully compete for larger external grants that will enable them to continue the research.
Purpose/Intent	This project prepared and isolated GS mutant enzymes with increased capacity for glutathione synthesis to help understand how protein subunits communicate. This improved understanding has applications for many diseases such as HIV, Parkinson's and Alzheimer's which are characterized by glutathione shortages.
What makes this project a good investment for the state or institution?	These funds provided training opportunities for two graduate research assistants and provided support for a future research proposal for external funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 4,045
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,085
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,130**

Title	Research Enhancement Program (Hanson) Mechanisms of Regulation for Essential Murine Cytomegalovirus Genes M142 and M143
Description	These funds were used to support a project submitted to the Research Enhancement Program (REP) (PI: Dr. Laura Hanson, Biology). This program provides support to faculty research projects in the form of seed money so faculty members will be able to successfully compete for larger external grants that will enable them to continue the research.
Purpose/Intent	This project identified new targets for control of cytomegalovirus (CMV) infection, the most common viral cause of birth defects in humans.
What makes this project a good investment for the state or institution?	These funds provided training opportunities for two graduate students and provided support for a future research proposal for external funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 3,480
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 4,468
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 7,948**

Title	Research Enhancement Program (Juma) Anti-inflammatory Action of Blueberry Polyphenols in Human Chondrocytes
Description	These funds were used to support a project submitted to the Research Enhancement Program (REP) (PI: Dr. Shanil Juma, Nutrition & Food Sciences). This program provides support to faculty research projects in the form of seed money so faculty members will be able to successfully compete for larger external grants that will enable them to continue the research.
Purpose/Intent	This project conducted pilot testing on the hypothesis that blueberry polyphenols in a close dependent manner will inhibit the inflammatory process associated with osteoarthritis (OA) using human cartilage (chondrocytes) cells.
What makes this project a good investment for the state or institution?	These funds provided support for a future research proposal for external funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 1,622
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 6,399
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 8,021**

Title	Research Enhancement Program (Pickens) Comparing the Impact of Home Modifications, Exercise, and Social Visits on Performance of Activities of Daily Living: A Pilot Study
Description	These funds were used to support a project submitted to the Research Enhancement Program (REP) (PI: Dr. Noralyn Pickens, Occupational Therapy). This program provides support to faculty research projects in the form of seed money so faculty members will be able to successfully compete for larger external grants that will enable them to continue the research.
Purpose/Intent	The effects of home modifications and general exercise on safety and health outcomes were compared. The focus was on daily living skills.
What makes this project a good investment for the state or institution?	These funds provided support for a future research proposal for external funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 6,818
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 6,818**

Title	Research Enhancement Program (Youngblood) New American Music for Flute and Piano Recording Project
Description	These funds were used to support a project submitted to the Research Enhancement Program (REP) (PI: Dr. Pamela Youngblood, Music). This program provides support to faculty research projects in the form of seed money so faculty members will be able to successfully compete for larger external grants that will enable them to continue the research.
Purpose/Intent	The discovery and performance of new music for flute was recorded, produced, and distributed.
What makes this project a good investment for the state or institution?	These funds provided support for a future proposal for external funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 8,000
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 8,000**

Title	Departmental Research Support	
Description	Funds were used to support the needs of researchers from various departments throughout the year for minor, unexpected expenses.	
Purpose/Intent	Funded were expended to purchase laboratory supplies for researchers.	
What makes this project a good investment for the state or institution?	The items purchased supported funded research and enabled faculty to further the research projects and for collaborations to facilitate further research and funding efforts in their fields.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 609
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 609**

Title	Membership in Grants Resource Center
Description	Partial payment of the institutional membership in the American Association of State Colleges and Universities Grants Resource Center.
Purpose/Intent	This membership is intended to enhance the research capacity of TWU faculty and help these faculty members be more competitive in accessing external research dollars.
What makes this project a good investment for the state or institution?	To provide TWU research community with resources to better prepare them to submit competitive proposals to funding agencies.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 3,551
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 3,551**

Title	Carried Over	
Description	N/A	
Purpose/Intent	N/A	
What makes this project a good investment for the state or institution?	N/A	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 25,819
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 25,819**

Title	College of Engineering and Science Faculty Supplements
Description	These funds are used to provide supplemental salary for accomplished research faculty
Purpose/Intent	To enable the retention of outstanding research faculty who are sought for employment at other institutions.
What makes this project a good investment for the state or institution?	This investment lowers faculty turnover rates and the expenses associated with faculty recruitment.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 242,300
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 242,300**

Title	Office of Research Salary Support including the Office of Sponsored Projects & Grants, and Research Compliance
Description	These funds were use to expand staff and supplement the salaries of existing personnel.
Purpose/Intent	Research funding at the university has increased substantially over the last six years. The Office of Research was critically understaffed during the period of extra activity. These funds allowed us to expand and enhance salaries of existing staff.
What makes this project a good investment for the state or institution?	The Office of Research functions in an oversight capacity for all university research functions; and thus, plays a key role in generating external funding for the institution. The ability to attract and retain highly skilled staff in this office is crucial to the university's research mission.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 964,538
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 964,538**

Title	Graduate Research Assistant Salaries
Description	Salaries paid to Graduate Research Assistants working at UT Arlington, including the Colleges of Engineering, Science, Nursing, Education and Schools of Urban and Public Affairs, Social Work, Architecture, etc.
Purpose/Intent	The purpose of these funds is to pay graduate research assistants who provide a vital research support role to our research faculty who are working to generate extramural funding.
What makes this project a good investment for the state or institution?	The research experience gained by these students is a critical part of their graduate education. They also play a role in generating extramural funding for the university.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,172,430
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,172,430**

Title	Research Technicians and Research Support
Description	Salaries for Research Technicians and Research Support
Purpose/Intent	The purpose of these funds is to pay research technicians and other research support positions who provide a valuable research support role to our research faculty.
What makes this project a good investment for the state or institution?	They provide valuable research support which contributes to the University's research mission.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 642,045
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 642,045**

Title	Office of the Vice President for Research Salary Support
Description	These funds were used to supplement the salaries of existing personnel.
Purpose/Intent	Research funding at the university has increased substantially over the last six years. The Office of the Vice President for Research was critically understaffed during this period of expanded activity and existing personnel took on extra responsibilities to cover the increased work load. These funds allowed us to enhance salaries as we worked to recruit additional highly skilled personnel.
What makes this project a good investment for the state or institution?	The Office of Vice President for Research functions in an oversight capacity for all university research functions; and thus, plays a key roll in generating external funding for the institution. The ability to adequately compensate and retain highly skilled staff in this office is crucial to the university's research mission. Even though UT Arlington paid some existing research staff from the RDF strategy, it allowed the university to free up other general revenue funds to hire additional tenure stream faculty, which improves our student to faculty ration and overall research productivity.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 431,501
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 431,501**

Title	Research Development Fund Annual Report - FY 2010
Description	These funds were utilized for salaries and operating expenses for research related activities.
Purpose/Intent	Research development funds provide full and partial support for faculty and staff conducting research and research related activities. In addition, these funds provide resources for the purchase of research related supplies and equipment.
What makes this project a good investment for the state or institution?	These funds promote increased research capacity at our campus by supporting research and research related efforts and initiatives where institutional funds are limited.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 588,221
Operating Expenses	$ 69,310
Staff Benefits	$ 0
Capital Expenditures	$ 11,180
Total	**$ 668,711**

Title	Research Development – Contract and Grant Office
Description	
Purpose/Intent	The Office of Sponsored Projects serves as the coordinating office for externally funded research projects submitted by The University of Texas at Dallas. OSP's main duties include notifying researchers regarding funding opportunities, providing technical assistance to researchers for drafting , reviewing, and processing proposals for submission, negotiating terms for awards and contracts and assisting with the following some post-award administrative functions: re-budgeting, time extensions, and tracking of technical reports.
What makes this project a good investment for the state or institution?	These funds allow the Office of Sponsored Projects to support the faculty, staff and administration of UTD in effectively seeking, obtaining, and managing their research and scholarly activities to enhance their educational role.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,152,164
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,152,164**

Title	Research Development - Central Research Office
Description	
Purpose/Intent	The Office of the Vice President for Research (OVPR) manages the Sponsored Programs (OSP), Research Compliance (ORC), Research Development (ORD) and Technology Commercialization (OTC) operations. These functions are all vital to ensuring the continued growth of the research enterprise at UT Dallas.
What makes this project a good investment for the state or institution?	The four offices operating under the OVPR umbrella (OSP, ORC, ORD, and OTC) directly support faculty members in the development and submission of research proposals, negotiation of award contracts, facilitation of compliance with federal, state and local laws and regulations related to research, and the commercialization of technologies developed by UT Dallas faculty members. All of these functions are integral to the operations of a top tier research university and to the continued development and growth of high quality research in the state.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 434,143
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 434,143**

Title	Research Development – Natural Science and Mathematics
Description	
Purpose/Intent	The purpose of the Research Development funds is to assist UTD in furthering its academic excellence goals by providing supplemental funds for Faculty and Staff to develop and support research in the areas of Physics, Chemistry, Biology, Mathematics and Geosciences.
What makes this project a good investment for the state or institution?	The academic and research programs in the School of Natural Sciences and Math create the environment for excellence in student achievement and cutting edge research in the biological, geological, mathematical and physical sciences. Through this research, it will ensure that the North Texas region continues to grow as a science, mathematics, and educational destination, as a source of scientific talent, and as an incubator of new technologies.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,428,045
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,428,045**

Title	Research Development – Electrical Engineering and Computer Science
Description	
Purpose/Intent	The Department of Electrical Engineering & Computer Science is creating and maintaining a fearless environment that inspires the pursuit, creation and dissemination of knowledge in the following areas: Analog and mixed-signal circuits and systems, bioengineering, human communication technology, information assurance and cyber security, materials characterization, micro- and nanomanipulation, nanoelectronic materials, devices and systems, organic electronics, physical/chemical and biosensors, RF/microwave technology, wireless communications engineering.
What makes this project a good investment for the state or institution?	The Jonsson School, created in large part to serve the demands of the Dallas area high-tech community, has capitalized on its unique location and is becoming an integral part of the North Texas 'economic engine.' Research Development funds aid in developing the relationships between UTD and industry which benefit our students, the Jonsson School and industry by providing career opportunities for graduate students, co/op/internship opportunities for students, and potential creation of research partnerships.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 2,114,925
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 2,114,925**

Title	Research Development – Arts & Humanities
Description	
Purpose/Intent	The University of Texas at Dallas develops and supports cutting edge programs dedicated to interdisciplinary research and education in the areas of arts and technology, emerging media and communications and the more traditional performing and visual arts.
What makes this project a good investment for the state or institution?	Research Development funds help support imaginative projects that transcend boundaries, or that fall outside the present bounds of traditional arts and humanities programs

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 30,150
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 30,150**

Title	Research Development – Economic Political & Policy Sciences
Description	
Purpose/Intent	Economics Political and Policy Sciences programs provide an education that allows the student to understand social phenomena from an economics perspective and to provide students with the substantive and analytical skills necessary to study interesting and important questions about how citizens influence what government does, the responsibilities and effectiveness of government, and the consequences of what public institutions and officials do for individual and community well-being.
What makes this project a good investment for the state or institution?	Research Development funds provide faculty the support to teach students to be able to think critically about choices in the face of limited resources in order to understand more clearly the choices available to society and the economic consequences of decisions.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 93,464
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 93,464**

Title	Research Development – Behavioral & Brain Science
Description	
Purpose/Intent	Modern non-intrusive methods for monitoring real-time functioning of the human brain have lead to issues requiring the definition of normal brain function. A goal of this institute is to define the concept of a "healthy" brain as well as developing techniques for the brain as well as developing techniques for the early detection of non-healthy functioning.
What makes this project a good investment for the state or institution?	Results of this research will have major positive effects upon human health, and will create possible commercial applications, and will reduce burdens upon social service agencies.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 253,820
Operating Expenses	$ 106,483
Staff Benefits	$ 0
Capital Expenditures	$ 6,564
Total	**$ 366,867**

Title	Carried Over	
Description		
Purpose/Intent		
What makes this project a good investment for the state or institution?		
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 7,835
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 7,835**

Title	Research Equipment
Description	Funds were allocated for acquisition, maintenance and support of research equipment in the Colleges of Science, Engineering, and Liberal Arts and Health Sciences.
Purpose/Intent	UTEP continues to expand its research agenda to increase research capacity in the STEM disciplines. As part of these efforts, UTEP has acquired a number of scientific instruments which are heavily used for sponsored research projects. In order to avoid service interruptions, several of these instruments were placed in yearly maintenance contracts using RDF Funds. New equipment was also acquired replacing obsolete items
What makes this project a good investment for the state or institution?	These RDF investments have helped UTEP in building research capacity and becoming more effective in securing competitive research funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 405,293
Total	**$ 405,293**

Title	Grant Cost Shares
Description	Cost share for major sponsored projects
Purpose/Intent	Research development funds were invested to cover the committed and voluntary cost shares for national competitive federal grants sponsored by the National Science Foundation, The National Institute of Health, the Office of Naval Research and the Air Force Office of Scientific Research.
What makes this project a good investment for the state or institution?	Cost sharing projects not only help principal investigators to meet the needs of the grant but also show institutional support to the agencies where the return on investment is beneficial to UTEP, the students, and the researchers involved.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 46,226
Salaries/Wages for Existing FTEs	$ 91,017
Operating Expenses	$ 109,625
Staff Benefits	$ 0
Capital Expenditures	$ 279,206
Total	**$ 526,074**

Title	Veterinary Services
Description	Operating support for Veterinary Services Office
Purpose/Intent	In recent years, UTEP has aggressively expanded its research agenda to increase capacity in biomedical and health related research. As part of these efforts, UTEP recently completed the new Biosciences building, which houses animal research facilities, vivaria, and Biosafety Level 3 containment facilities. These research facilities also demand that all research dealing with animals (funded and unfunded) be in compliance with animal welfare regulations of the Office of Laboratory Animal Welfare (OLAW) of the US Department of Health and Human Services. RDF funds were used to cover capital and operating expenditures in support of the Veterinary Services Office.
What makes this project a good investment for the state or institution?	The RDF investment will allow the execution of biomedical and health -related research to be in compliance with OLAW federal regulations.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 145,685
Operating Expenses	$ 98,598
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 244,283**

Title	Institutional Animal Care and Use Committee
Description	Operating support for the Institutional Animal Care and Use Committee (IACUC)
Purpose/Intent	The purpose of the IACUC is to assure that UTEP researchers care for and use animals in ways judged to be scientifically, technically, and humanely appropriate. The committee provides research oversight and evaluation of the institution's animal care and use program and facilities by ensuring compliance with federal regulations related to the proper care, use, and humane treatment of animals used in research, testing and education. The IACUC also provides assistance to investigators in fulfilling their obligation to plan and conduct animal research in accordance with the highest scientific and ethical principles.
What makes this project a good investment for the state or institution?	The RDF investment will allow the execution of animal related research to be in compliance with the Public Health Service Policy on Humane Care and Use of Laboratory Animals; United States Department of Agriculture-Animal and Plant Health Inspection Service; U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research and Training; and Code of Federal Regulations, 1989, Title 9, Parts 1, 2, and 3 (Animal Welfare Final Rules).

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 68,628
Operating Expenses	$ 22,669
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 91,297**

Title	Start-up packages
Description	The University uses these funds to provide support for newly hired faculty who are expected to establish funded research programs.
Purpose/Intent	The intent of this program is to attract new, highly competitive research faculty in order to increase the level of research funding and enhance institutional excellence. The funds are used for salaries and wages for faculty members, post-Docs, research technicians, laboratory assistants, capital expenditures, and operating expenses required to operate and maintain laboratories for the purpose of research production.
What makes this project a good investment for the state or institution?	These investments have helped UTEP in building research capacity and becoming more effective in securing competitive research funding. This enables the hiring of strong faculty who will enhance the standing of the institution and contribute to it's research and instructional missions.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 87,606
Salaries/Wages for Existing FTEs	$ 271,260
Operating Expenses	$ 138,942
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 497,808**

Title	Research Initiatives
Description	The University uses these funds to provide transitional salary and support for newly hired faculty and faculty that need to be retained for their research credentials.
Purpose/Intent	The intent of this program is to retain existing faculty and attract new, highly competitive research faculty in order to increase the level of research funding and enhance institutional excellence. The funds are used for capital expenditures, operating expenses, and salaries and wages for research assistants, post-Docs and laboratory technician and salaries for faculty members.
What makes this project a good investment for the state or institution?	These RDF investments have helped UTEP in building research capacity and becoming more effective in securing competitive research funding. This enables the hiring of strong faculty who will enhance the standing of the institution and contribute to it's research and instructional missions.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 1,282,772
Operating Expenses	$ 710,553
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,993,325**

Title	University Research Institute
Description	Funding program to individuals in full time positions for which research productivity is an expected requirement.
Purpose/Intent	The University Research Institute provides funding assistance to those full time individuals that have submitted proposals to the Faculty Research Senate Committee and meet all requirements. Funding assistance is awarded to those proposals that assist in the development of new junior faculty members, assist in the development of research programs that will attract external sources of funds, and make maximum use of resources and facilities available within UTEP.
What makes this project a good investment for the state or institution?	The URI's have been one of the most important means to support research faculty at UTEP. The funds have provided infrastructure support for research to engage in pilot studies or further current research activities. This in turn allowed many of these researchers to obtain and apply external funding from major science and engineering funding agencies. This URI funding has been used by these researchers in many ways such as conference travel, equipment purchase, supplies and materials purchase, and in some cases student research assistant support.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 23,476
Operating Expenses	$ 57,232
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 80,708**

Title	Center for Research Entrepreneurship & Innovative Enterprises
Description	CREIE works with UTEP researchers to commercialize their ideas by providing services such as best-in-class innovation practices; technology, intellectual property and patent strategies; licensing strategies, market research; business strategy and plan development; company formation, organization structures and capitalization strategies; fundraising; incubation; and recruitment strategies.
Purpose/Intent	The purpose of CREIE is to be the single portal to assist customers on innovation, entrepreneurship, technology transfer, and commercialization.
What makes this project a good investment for the state or institution?	The outcomes of CREIE not only have enhanced tech transfer operations, but also are expected to contribute to the economic development of the El Paso Region.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 112,578
Salaries/Wages for Existing FTEs	$ 31,159
Operating Expenses	$ 8,212
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 151,949**

Title	Strategic Hires
Description	The strategic hires program provides funding to Colleges to recruit outstanding and high-profile faculty researchers who are aligned to the educational and research mission of the University.
Purpose/Intent	The purpose of the program is to provide agility to the University in the strategic recruitment of outstanding faculty who advance the University to attain a National Research University status.
What makes this project a good investment for the state or institution?	The recruitment of high-profile faculty members is one way to enhance the caliber of research at UTEP and to increase the quality of education the students deserve.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 198,333
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 198,333**

Title	Research Centers Support
Description	This program provides start-up and transitional support for the establishment of research centers with an aggressive extramural funding agenda.
Purpose/Intent	The purpose of these funds are to provide start-up and transitional support to develop the infrastructure of the Center for Space Exploration Research and Technologies and the Future Aerospace Science and Technology Center. These two centers have secured multiple grants from federal agencies and aerospace industry partners with obligations exceeding $7 million.
What makes this project a good investment for the state or institution?	The investment is effectively used to leverage extramural funding, which in turns, provides support for the educational and research mission of the University.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 59,275
Operating Expenses	$ 14,985
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 74,260**

Title	College of Sciences Research Faculty Start-up and continuing support
Description	The fund proceeds in FY 2010 were allocated to support appointed research-oriented College of Sciences faculty at UTSA and to promote the advancement of the research enterprise.
Purpose/Intent	This effort promoted emerging research university goals by providing resources to equip and establish laboratories, defray costs for personnel performing investigative roles, and initiate or sustain early stage research in support of System's initiative to increase research capabilities. In addition, the fund contributed to supporting faculty in evolving their respective areas of interest and expertise to enhance and broaden UTSA research base. The fund also supported personnel costs, purchase of supplies, equipment and materials for use in developing research areas.
What makes this project a good investment for the state or institution?	During FY 2010, the College of Sciences expended $360,728 in Research Development Funds to provide financial resources to support the research endeavors of new and existing faculty members. The College of Sciences garnered new extramural funding totaling $534,746 for faculty supported through the Research Development Funds resulting in a 148% return on investment: $200,000 (D. Frantz) for Catalytic, Asymmetric Synthesis of Chiral Allenes via Enantioselective B-Hydride Elimination from the Welch Foundation ($50,000) and Development of Novel Stem Cell-Based Therapeutics to Treat Heart Disease and Cancer from the Voelcker Foundation ($150,000); $187,521 (G. Cole) for Development of a Vaccine Against Valley Fever from California State University, Bakersfield; $140,000 (J. Sharma) for Role of galectin-3 and galectin-9 as alarmins in respiratory Francisella induced sepsis from the American Heart Association; and $7,225 (A. Ayon) for Laboratory Prototype of a Roof Load Sensor from Beldon Technologies, Inc.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 149,764
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 210,964
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 360,728**

Title	College of Education and Human Development Research Initiatives/Start-up Packages
Description	The fund proceeds in FY 2010 were allocated to support new faculty in the College of Education and Human Development and to promote the advancement of the research enterprise.
Purpose/Intent	The purpose/intent of this program within the College of Education and Human Development is to provide start-up funding for new faculty.
What makes this project a good investment for the state or institution?	During FY 2010, the College of Education and Human Development expended $30,703 in Research Development Funds to provide financial resources to support the research endeavors of new faculty members. The College of Education and Human Development garnered new extramural funding totaling $371,361 for faculty supported through the Research Development Funds resulting in a 1,209% return on investment: $282,733 (M. Berland) for Collaborative Project: Programming Standing Up from NSF; $84,628 (A. Mohan) for Sustainable Ecosystems, Enduring Cultures (SEEC) Ecuador from Department of Education; and $4,000 (F. Yan) for Implementation of Maryland Tracking Network subcontract from University of Maryland at College Park.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 1,520
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 29,183
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 30,703**

Title	UTSA Office of Research Integrity and Compliance
Description	Funds were allocated to support various personnel in the Office of Research Integrity and Compliance (ORIC) who work with researchers to navigate and comply with the complex maze of federal, state, and local regulations that impact research undertaken at academic institutions. Our goal is to reduce the regulatory burden on researchers by minimizing and streamlining the frequency and redundancy in compliance training programs.
Purpose/Intent	The mission of The Office of Research Integrity and Compliance (ORIC) is to promote the ethical conduct of research. ORIC serves the UTSA research community by providing independent oversight in coordinating institution-wide research compliance policy, procedures and training through partnering with researchers. ORIC facilitates research integrity in the following areas: the use of humans and animals in research, biosafety, conflict of interest in research & intellectual property, export controls, the responsible conduct of research, and training programs. All areas saw exponential growth in FY10.
What makes this project a good investment for the state or institution?	Noncompliance of federal, state, and local regulations can result in severe financial penalties and hefty fines that could have a substantial impact on research at UTSA. In FY10, the scope of training programs coordinated by ORIC continue to expand in light of new federal mandates for research training and with the launch of several new electronic research administration tools, including Click Commerce. In coordination with OSP and ORIC staff, progress was made on the development of a comprehensive research training curriculum that includes topics in: Basics of Research Administration (10-wk series designed for departmental and central research administrators), Responsible Conduct of Research (RCR)/General Compliance Training, IRB-Human Subject Research, IACUC-Animal Care and Use, Institutional Biosafety (variety of classroom and online training), Conflicts of Interest, Time and Effort, and Export Controls.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 269,402
Operating Expenses	$ 36,115
Staff Benefits	$ 0
Capital Expenditures	$ 28,859
Total	**$ 334,376**

Title	Research Conferences and Competitions
Description	Funds were allocated to increase the awareness of UTSA's research capabilities and growing support for UTSA's research programs by holding various events and issuing publications that highlight research activities and promote collaborations. UTSA is actively working to increase its visibility through effective strategies and through development of nationally competitive programs. The university's success at garnering national recognition is critical in UTSA's pursuit of Tier One status. Funds were also used for various research conferences and competitions that highlight UTSA's unique strengths in important areas of national interest.
Purpose/Intent	The University of Texas at San Antonio aims to increase its research capacity by promoting the importance and visibility of the institution's research activities and encouraging collaborations across disciplines.
What makes this project a good investment for the state or institution?	UTSA's established research visibility in the life sciences is clearly projected to continue to increase as is its pre-eminence in research and training of Hispanic students. Important emerging areas of national interest and visibility include cyber security, bioengineering, international finance and economics, neuroscience, energy and sustainability, and nanoscale physics. Communicating UTSA's research mission, values and messages is key to increasing support for research activities, establishing new and maintaining existing partnerships, and generating interest in our research activities.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 31,590
Operating Expenses	$ 44,882
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 76,472**

Title	Contracts, Commercialization Alliances and Tech Transfer
Description	UTSA continues to build an extensive commercialization program that is committed to enabling technology-based economic development in the South Texas region. UTSA's Commercialization Council is a diverse ecosystem that includes the South Texas Technology Management office; the Center for Innovation Technology and Entrepreneurship; the Institute for Economic Development; the Institute for Cyber Security; the Office of Research Integrity and Compliance; and the Office for Contracts and Industrial Agreements. It is also supported by the Startech, a private, not-for-profit Texas corporation that assists researchers, inventors and entrepreneurs in marketing their technologies.
Purpose/Intent	Funding was provided to support the Office of Contracts and Industrial Agreements (OCIA) and the South Texas Technology Management (STTM), a regional technology transfer office within the UT System whose mission is to provide comprehensive and integrated technology development services using effective protection and commercialization strategies to stimulate and capitalize on its intellectual property portfolio, thereby achieving maximum economic and humanitarian value. These groups help facilitate UTSA's mission in areas of technology transfer, commercialization, and university-industry partnerships by increasing the depth and success of partnerships with private companies and units of government.
What makes this project a good investment for the state or institution?	At the end of FY10 the number of research contracts processed by OCIA increased by 82% over the prior year. UTSA's invention disclosures saw an increase 25% and patent filing increased 567 percent over the prior year. By facilitating a contracting pipeline and the development of faculty-conceived products, OCIA and STTM are fostering and encouraging the research of new and cutting edge technologies. STTM is also instrumental in the development and commercialization of new marketable technologies developed by faculty and students. By sustaining a state-of-the-art technology transfer office that helps researchers bring their discoveries to the commercial marketplace, UTSA hopes to recruit more top-notch faculty who will help the university achieve its goal of becoming a premier public research university.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 195,091
Operating Expenses	$ 423,215
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 618,306**

Title	Research Development
Description	Research Development Funding was used to identify new and expanded funding opportunities and develop a Multidisciplinary Proposal Development Team. Visits to Federal Agencies, such as the Department of Education, Department of Defense, National Science Foundation and National Institutes of Health resulted in new funding sources for researchers at UTSA in the fields of biology, engineering, political science, physics and nanomaterials. New partnerships were formed with Florida International University and others resulting in a collaborative proposal . There has been significant return on the use of the Research Development Funds through these investments.
Purpose/Intent	The Office of the Senior Associate Vice President for Research Development provides a variety of services to UTSA faculty to facilitate the development of strategic partnerships and the expansion of the UTSA research portfolio. These services include management support for the development of large, multidisciplinary research programs, the development of an electronic research information environment and providing financial advice and support to researchers.
What makes this project a good investment for the state or institution?	Educational and research collaborations and partnerships are central to broadening and strengthening the opportunities for research and graduate education, and UTSA has arguably some of the best opportunities for research partnerships in Texas. The multidisciplinary approach of UTSA's centers and institutes will bring colleges such as Public Policy, Architecture, Business, Education and Liberal and Fine Arts into collaborative research and educational programs dealing with sustainability, energy, and social and human development.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 36,737
Salaries/Wages for Existing FTEs	$ 275,355
Operating Expenses	$ 23,387
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 335,479**

Title	College of Engineering Research Initiatives/Start-up Packages
Description	The fund proceeds in FY 2010 were allocated to support appointed research-oriented College of Engineering faculty at UTSA and to promote the advancement of the research enterprise.
Purpose/Intent	The purpose/intent of the research development funds program within the College of Engineering at the University of Texas at San Antonio is to provide research support to faculty in the form of additional funding to purchase laboratory equipment, materials and supplies, and to provide salary support for graduate research assistants, post doctoral fellows, laboratory technicians, and faculty summer salary support for research.
What makes this project a good investment for the state or institution?	During FY 2010, the College of Engineering expended $633,966 in Research Development Funds to provide financial resources to support the research endeavors of new and existing faculty members. The College of Engineering garnered new extramural funding totaling $1,596,848 for faculty supported through the Research Development Funds resulting in a 251% return on investment: $98,257 (C. Hallam) for UTSA Tech Start-Up Entrepreneurship Program: Accelerating Technology Venture Entrepreneurship for Women and Minorities from the Small Business Administration; $15,000 (M. Appleford) for Development of Bioimplants for Musculoskeletal Applications: A Comparative In Vitro and In Vivo Study of Biocompatibility and Immunocompatibility from Aperion Biologics, Inc.; $142,773 (A. Ramasubramanian) for A high-throughput chip for prediction of chlamydial disease from the San Antonio Area Foundation, Hydrodynamic regulation of C. pneumoniae-exacerbated atherosclerosis from the American Heart Association, and CaBChip: A high-throughput screen for antifungal drug discovery from the University of Texas Health Science Center San Antonio; $163,836 (J. Ye) for Novel Optoacoustic Sensors with an Open Cavity Configuration from NIH; $1,080,000 (B. Kelley and H. Krishnaswami) for Installation of Distributed Solar Energy Resources at UTSA Campus with Sensor Network Monitoring and Control from the State of Texas; and $76,982 (G. Mani) for A Novel Drug Delivery Platform for Coronary Stents Using Self-Assembled Monolayers from the American Heart Association.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 67,496
Salaries/Wages for Existing FTEs	$ 16,167
Operating Expenses	$ 550,303
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 633,966**

Title	UTSA Laboratory Animal Resources Center AAALAC Accreditation
Description	Fund proceeds in FY2010 provided from the Research Development Fund were leverage with other university sources for the purposes of providing the Laboratory Animal Resources Center with the needed resources, facility upgrades and modifications needed to bring UTSA to AAALAC standards.
Purpose/Intent	The Laboratory Animal Resources Center (LARC) is committed to providing UTSA faculty, staff and students with high quality, cost-effective research animal resources. LARC provides veterinary and personnel training and expertise in laboratory animal technology and medicine. LARC is dedicated to support the University's research and teaching goals, to promote and assure humane care and use of animals through compliance with the Animal Welfare Act, Office of Laboratory Animal Welfare, Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International and University policies for the humane care and use of animals. The LARC advises and educates researchers, staff and students on animal experimentation issues and promotes best practices for the responsible use of animals. These actions result in quality science merging with animal welfare.
What makes this project a good investment for the state or institution?	AAALAC International is a private, nonprofit organization that promotes the humane treatment of animals in science through voluntary accreditation and assessment programs. The process is voluntary and confidential and open to all institutions that use animals in research, teaching or testing. Obtaining accreditation symbolizes quality and promotes scientific validity. It is a substantial recruiting tool for high caliber research faculty and it demonstrates accountability. Many federal programs require AAALAC accreditation as criteria for funding eligibility. UTSA faculty and researchers will also be able to collaborate with other AALAC accredited entities.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 71,766
Operating Expenses	$ 53,638
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 125,404**

Title	Research Development Fund Annual Report - FY2010
Description	Increase Research Enhancement Budget
Purpose/Intent	These funds enable the university to fund several small faculty research grants. Such grants are aimed at helping faculty members generate initial results necessary to successfully obtain funding from extramural grant sources. A portion of the funds are used to obtain scientific and non-scientific equipment to build infrastructure necessary for research projects not budgeted within the departments.
What makes this project a good investment for the state or institution?	These funds provide seed money for research projects and provide institutions the ability to acquire resources that would otherwise be unattainable through standard appropriations.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 139,822
Operating Expenses	$ 68,995
Staff Benefits	$ 0
Capital Expenditures	$ 24,856
Total	**$ 233,673**

Title	Support of Research Administration and Graduate Research Assistants
Description	Salaries for research administration and graduate research assistantships, and support for research office operations
Purpose/Intent	The primary purpose is to support research and sponsored program administration in order to provide comprehensive support for research across campus, and to support graduate assistants in the pursuit of master's degrees and doctoral degrees in order to provide these students with research skills in the latest technologies.
What makes this project a good investment for the state or institution?	Support services for research administration are a critical component of successful faculty grant applications and post-award management. Graduate research assistantships provide graduate students with the financial support needed to conduct a guided research program while working on advanced degrees. These assistantships supplement those provided by the University and provide support for strong research programs.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 250,623
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 250,623**

Title	Research Development Fund
Description	Monies received from the research development fund may only be used for the support and maintenance of educational and general activities, including research and student services, that promote increased research capacity at the institution.
Purpose/Intent	For the support and maintenance of E&G activities that promote increased research capacity at The University of Texas - Pan American (UTPA).
What makes this project a good investment for the state or institution?	This project is a good investment for UTPA in its diligent efforts to continuously improve and advance the cause of education and research in this region which will, in turn, benefit the state and nation. Our goals are to (1) increase our research infrastructure to a level that will make us more competitive for federal, state and other research granting opportunities, and (2) increase research opportunities to students. UTPA actively engages health providers, industry and other business leaders, educational and other community organizations to find solutions to civic, economic, environmental and social challenges through inquiry and innovation. The added emphasis on research and professional service increases the number and quality of the required faculty and supporting services. Building the kinds of specialized instructional and research spaces and providing the equipment and infrastructure to incorporate and utilize technological advances is more expensive that constructing and maintaining the simpler classrooms of the past. The Research Development Fund supports all of these endeavors through funding that would otherwise not be available to us. This year's allocation was used to support research assistants, scientific lab and computer equipment, software, research travel, chemicals and other supplies for faculty members to implement their research agendas. The recent creation of FibeRio, a nanotechnology company which will produce technology developed by UTPA faculty, is a prime example of the return on investment of the Research Development Fund.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 27,084
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 125,216
Staff Benefits	$ 518
Capital Expenditures	$ 516,935
Total	**$ 669,753**

Title	Graduate Tuition Fellowships
Description	$1.3 million of the appropriation the University of Houston receives from the Research Development Fund is invested in the Graduate Tuition Fellowship program, which pays for the tuition of graduate students who work as teaching assistants, teaching fellows and research assistants.
Purpose/Intent	The purpose of this investment is to retain and increase the number of top graduate students at the University of Houston. High quality graduate students are in demand at universities throughout the nation, and a university will only be able to compete for these students if it has excellent financial packages to offer them. The Graduate Tuition Fellowships program allows the University of Houston to compete with other top universities for the best students.
What makes this project a good investment for the state or institution?	Graduate students are critical to the research success of a university, because they support faculty in their research labs and scholarly activities. Having high quality graduate students at a university enhances the quality of faculty research and is, therefore, a selling point when recruiting new faculty. For the state, successful faculty research translates into higher levels of external research funding (particularly from the federal government), the development of a highly-skilled workforce, and the development and commercialization of new technologies, all of which are critical to the economic future of Texas. Increasing the number of high quality graduate students is also an integral component of the university's goal to become the state's next tier-one research university.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,268,800
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,268,800**

Title	Development and Operation of Research Laboratories
Description	$4.0 million of the appropriation the University of Houston receives from the Research Development Fund was invested in the development and operation of research labs on campus. This includes investments in facilities renovation, equipment purchase, operating expenses, and personnel (e.g., post-doctoral fellows, research lab staff) in programs such chemical, electrical, civil and biomedical engineering; biology and biochemistry; earth and atmospheric sciences; pharmacology; animal care operations; and the Center for Nuclear Receptors and Cell Signaling, a new biomedical research center that was created in part through a grant from the Governor's Emerging Technology Fund last year.
Purpose/Intent	The purpose of this investment is to provide faculty with the laboratories they need in order to conduct research and compete for extramural research grants, particularly from the federal government. High quality research labs are also critical to retaining and recruiting high quality faculty and students (especially graduate students) to the University of Houston.
What makes this project a good investment for the state or institution?	Investments made in research laboratories will bring to both the university and the state more top faculty and students, higher levels of research funding, and the development of new technologies, all of which are critical to the economic future of Texas.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 1,341,043
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 2,288,297
Staff Benefits	$ 0
Capital Expenditures	$ 420,635
Total	**$ 4,049,975**

Title	A Multi-Dimensional Trust Negotiation Model for Agent-Based Systems in Electronic Business
Description	
Purpose/Intent	Trust in e-Business is a complex social phenomenon that reflects technological, behavioral and social, as well as organizational aspects of interactions among various human or nonhuman agents. In the current research initiative, the issues of trust for online exchanges are addressed from multi-disciplinary perspectives, in which diverse perspectives from social, managerial, behavioral, computational and technological disciplines are integrated into a holistic model of trust in online exchanges.
What makes this project a good investment for the state or institution?	Results obtained from this research are expected to be of theoretical and practical significance to decision makers for i) measuring the level of trust and making policy recommendations with respect to the comprehensive dimensions of trust in online exchanges, ii) optimal trust building mechanisms for successful online exchanges in e-business environments, iii) highlighting the trust-enhancing market mechanisms which can be used to deter the abuse and misuse of trust, and iv) providing insights into the dynamics of trust in online exchanges.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 2,520
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,791
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,311**

Title	Role of Adenosine in Cognitive Deficits due to Sleepiness
Description	
Purpose/Intent	The hypothesis of this proposal is that the buildup of adenosine due to sleep deprivation causes the removal of excitatory signals to the hippocampus, thereby impairing memory systems. The proposed experiments will test rats in a water maze task which is hippocampal dependent. Sleep deprived rats will be given a drug that blocks adenosine (antagonist), while non-sleep deprived rats will be given a drug that mimics adenosine (agonist). It is expected that rats given the adenosine antagonist will perform like non-sleepy rats, while non-sleepy rats given an agonist will perform like sleepy rats.
What makes this project a good investment for the state or institution?	Understanding the role of sleepiness in learning and memory is especially important in sleepy populations such as students and shift workers. Establishing a physiological cause of sleepiness could impact sleep hygiene patterns and recommendations in populations where learning new information is critical. Ultimately, this information could impact the development of future drugs to maintain alertness and memory function during period of sleep deprivation.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,238
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,238**

Title	Hand and Arm Vibration Injuries Related to the Use of Pneumatic Powered Hand Tools
Description	
Purpose/Intent	Automobiles have become a cornerstone of the American household. The transportation of goods from supplier to market, the transportation of children to soccer practice, and even the morning commute give Americans a high dependence on their automobiles. This ever present dependence comes at a cost. Regular maintenance, the occasional mechanical breakdown, and even the unfortunate event of a car wreck puts consumers' busy lives at the mercy of their auto repair shop. Needless to say, automobile technicians, or mechanics, are the perpetually churning cogs driving America's need for transportation. Because mechanics provide this indispensable service to the community, the health and physical well being of the mechanic should be examined. What are risks and hazards that face a mechanic everyday when he or she opens the garage door? Ergonomic factors should be a main concern of employers and employees due to the everyday use of heavy machinery and heavy lifting in a mechanic shop. Just as the automobile is a complex and brilliant invention, so is the human body. When stress via vibrations is placed on the body, are there detrimental health effects? Do pneumatic powered hand tools pose as a danger to those mechanics which we so dearly depend on? This study proposes to collect data about ergonomic exposure that mechanics are exposed to, and that eventually may result in ergonomic-related injuries. Results will guide researchers and tool manufacturers to better design techniques and tools to overcome this type of injuries. Future similar studies are needed at other high-risk industries, as well.
What makes this project a good investment for the state or institution?	Results of this study will be reported to the sponsor (UHCL). Results will also be submitted to a peer-reviewed ergonomics venue of dissemination of information, such as a conference and/or publication. As part of the University's effort for teaching excellence, tools acquired by this study will be utilized in classroom settings and for potential future research to expand on the body of knowledge in that field.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 728
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 728**

Title	Book Embedding of Interconnection Networks
Description	
Purpose/Intent	Graph embeddings play an important role in interconnection network and VLSI design, such as determining the number of layers required to build a VLSI chip. Book embedding is helpful in determining the number of layers required for the design of an interconnection network. Upper and lower bounds on the page number of a book embedding of the k-ary hypercube along with an upper bound on the cumulative page width have already been developed, along with extending this result to the tori. Funds from this award will be used to investigate the book embedding of permutation networks such as the star and the pancake.
What makes this project a good investment for the state or institution?	Results of this study will add to the relevant knowledge base in areas of parallel processing and efficiency in the design of parallel machines based on underlying interconnection networks. Two Master's theses will result from this ongoing project, as well as, peer review journals and/or conferences.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 5,340
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 5,340**

Title	Protein Folding and Quantum Mechanics of Life
Description	
Purpose/Intent	There are several existing claims that quantum mechanics plays an important role in life. A large group of scientists believe that quantum mechanics not only provides the basis for the shapes and sizes of organic molecules, it also provides the origin of some of the biological processes which may lead to life threatening human diseases. Schrodinger suggests that quantum fluctuations may lead to complicated biological processes like mutation. In recent times, people have tried to link consciousness with the quantum coherence in microtubules. These claims will be checked, including quantum corrections in computer simulations. We are already working on hydrophobic interaction of a single nonpolar molecule in a nano-sphere of polar solvents like water. Based on the density of states function in the probability theory, we want to revisit the quantum mechanical description of biological processes by incorporating quantum corrections in molecular simulations to check the validity of quantum correction. This can be done by adding a quantum mechanical contribution in the CHARMM force field before performing the simulation of molecular dynamics
What makes this project a good investment for the state or institution?	Human diseases are related to our survival and always attract human attention to a great extent. Environment is being blamed for the growing rate of cancer and other deadly diseases. However, a cure has to be found for the survival and it is only possible if we fully understand the cause of these diseases. Several groups at NASA are working on carbon nanotubes and radiation biology to assure the safety of astronauts during the space missions. We are indirectly connected to them through our adjuncts at UHCL and are trying to develop our group along the interest of NASA, NIH and NSF. If we can produce a few papers in this direction, we will automatically be noticed by these communities with a minimum effort, which will support our new collaborative Ph.D. program. Since UHCL is located right next to NASA JSC, it has a large ratio of students who have direct or indirect affiliation with JSC. These students also share the excitements and achievements of NASA as an institution. This project will provide us an opportunity to share our experience with the NASA community, as well as attract more students to UHCL's Physics program. We already have collaboration with UH on the study of hydrophobic interaction of hexane with nanosphere of water. This independent project will help us to get a more important role in this collaboration. Some of the earlier work in this direction has been done in collaboration with very well-known scientists in the area from other institutions. Because of these collaborative connections, our physics master's degree students continue their educational studies with UH and want to develop a program where students can share knowledge and enthusiasm from both campuses. Being close to the research interest of NASA, we may be able to get more students from NASA and other related companies and obtain grants/scholarships for our research students.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 3,000
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 3,000**

Title	Adaptive Parameter Tuning for Ultrasound Image Segmentation
Description	
Purpose/Intent	An iterative, automatic application-dependent, parameter tuning system is proposed to optimize the setting of a given image segmentation tool with a given training image data previously segmented for a particular application. For example, a given image segmentation tool can be tuned to one parameter setting for separating the cancer tumor ultrasound image region from the normal tissue region. The same image segmentation tool can also be tuned to another parameter setting for separating the salt dome sonar petro image region from the surrounding subterranean region. Many challenging image segmentation applications are either time consuming or require expert interpretation. Although many computer image segmentation tools are readily available and well developed to help the applications, most require extensive tweaking to optimize the setting for using a given image segmentation tool properly for a given application. We plan to design a systematic approach to iteratively test a given segmentation tool with a random initial parameter setting, with image training data that has know segmentation (by experts or from known historic data). With the testing score assessed of the initial parameter setting, we will develop a rule to adapt the parameters iteratively toward a perfect segmentation (better test score) for the given application. This way, even though there may not be known rules for a challenging image segmentation problem, the segmentation tool can be tuned to optimize parameter setting to segment new patient data similar to how the training image data was segmented by unknown or intuitively experienced ways by experts. To double the accuracy of ultrasound diagnosis and biopsy guidance (from 38-42% for prostate cancer to 88-92), an efficient, integrated platform for image textural analysis and clustering of transrectal prostate ultrasound images into clusters potentially representing cancerous or normal tissue areas is presented. An efficient Image Texture Analysis tool platform on Windows PC is constructed via innovative sparse co-occurrence matrix techniques with linked lists to speed up the processing from 8 days to about 5 seconds per image on a PC, based on Haralick's textural features [1] and the Mean Squared Error (MSE) clustering algorithm. This significant reduction in run time potentially allows more accurate, objective diagnoses to be performed within point-of care clinical settings, as well as enables the general investigation of image textural and clustering parameters. Ultrasound diagnosis is proven to be less invasive, even portable, at lower screening costs than most other medical imaging. However, being less visual than most, ultrasound image diagnosis is difficult even for trained professionals, and thus can benefit greatly from computer enhancement. The parameter settings of this efficient image texture analysis tool can be automatically tuned like a "magic goggle" to cluster pixel groups in wide varieties of challenging micro/macro image applications for remote sensing, finding ice on stars, detecting heat shield damages, locating salt domes for oil/gas, and early cancer detections to save lives.
What makes this project a good investment for the state or institution?	The result of this concept demonstration will help optimize the application the current image segmentation tools for scientific research, and clinical practice.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 3,000
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0

Total	**$ 3,000**

Title	Gene Expression of Stress Response Leading to Coral Bleaching in Soft Corals
Description	
Purpose/Intent	The project aims to quantify gene expression of stress-related enzymes in the soft corals Eunicea fusca and Plexaura homomalla as a means to elucidate the biological cascade of events that trigger coral bleaching after exposure to stress. As a starting point, the expression of gene transcripts believed to be involved in the stress response, such as those involved in chemical defenses (heat shock proteins and Nitric Oxide Synthase), will be studied. The genetic expression will be quantified by reverse-transcriptase polymerase chain reaction (RT-PCR) and real-time quantitative PCR (qPCR). A second goal is to record changes in the microbial population of bleached and healthy corals, since coral bacterial endosymbionts are believed to be essential in maintaining coral health. The long-term goals of this project are to develop a set of biomarkers that can be used to predict coral stress and bleaching.
What makes this project a good investment for the state or institution?	The research will be the foundation for future research at UHCL by Dr. Santiago-Vázquez and student lab members. The results from this pilot study will be utilized as preliminary data for the submission of grant proposals to NOAA's Coral Reef Conservation Grant Program and to the National Science Foundation Biological Oceanography Division and the Research Initiation Grants. These data will also be used to present a poster at the International Marine Conservation Congress in Washington, D.C. in May 2009 and will contribute to a series of publications and collaborations. In addition, the data produced by this study will provide the basis for UHCL student research projects, including two Biotechnology MS thesis projects and several independent studies students.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 155
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 155**

Title	Provost Main Research Development
Description	
Purpose/Intent	Funds are used to provide additional support to UH System faculty researchers in order to achieve goals and objectives set forth in their research awards, both internal and external. Research fields include, but are not limited to, environmental science, chemistry, geology, biology, psychology and education.
What makes this project a good investment for the state or institution?	

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 14,167
Operating Expenses	$ 23,253
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 37,420**

Title	EIH Main Research Development	
Description	Environmental Research and Education Funds	
Purpose/Intent	Funds are used to provide seed funding in the field of environmental research and education support. Funds support research conducted by UH System faculty researchers and educators in the fields of environmental science, fisheries science, chemistry, geology, meteorology, biology and hydrology.	
What makes this project a good investment for the state or institution?		
Financial	Salaries/Wages for New or Reassigned FTEs	$ 17,721
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 3,433
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 21,154**

Title	Research Development Fund-Office of Sponsored Programs
Description	Support the University of Houston - Downtown's Office of Sponsored Research
Purpose/Intent	The funding is used to support our Office of Sponsored Programs which provides faculty and staff with support throughout the grant process, including identifying new/available funding, assisting with proposals and post-award grant support.
What makes this project a good investment for the state or institution?	The funding provides support to the University's effort to expand it's research opportunities, to create new funding sources through additional grant funds and indirect cost recovery as well as providing the proper management of existing grants.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 56,984
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 56,984**

Title	Academic Analytics
Description	Licenses for databases and data files consisting of statistical information on academic programs and competing programs at other institutions including Z scores and the Faculty Scholarly Productivity Index (FSPI).
Purpose/Intent	To use content as a tool for internal analysis and decision-making and to assist in the evaluation of doctoral programs and to measure and compare faculty scholarship within the university system and amongst peers.
What makes this project a good investment for the state or institution?	This will allow UNT to measure the professors and faculty in quality of research, scholarship and funding against UNT's peer intuitions.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 18,425
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 18,425**

Title	Center for Computational Epidemiology
Description	Computing and visualization lab
Purpose/Intent	Facilitate the establishment of a computing and visualization lab to develop computational models that aide in the preparation for bio-emergencies.
What makes this project a good investment for the state or institution?	A Real-time Immersive Simulation chamber with visualization tools that will allow researchers to interactively modify ongoing model simulation and to retrieve, inject, or modify relevant model parameters, thereby conducting a real-time what-if analysis to better predict the outcome of possible interventions and public health strategies. The center will facilitate the collaborative effort of researchers from diverse domains, including Biology, Geography, Computer Science, Biostatistics, Epidemiology, Public Health, and Environmental Science. They also contribute to UNT's efforts in the area of global research and education.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 9,946
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 9,946**

Title	CART
Description	Center for Advanced Research and Technology
Purpose/Intent	Developing CART as a truly interdisciplinary center for advanced research across the UNT campus. CART will provide valuable research resources to the faculty and students to use in their research efforts.
What makes this project a good investment for the state or institution?	A Real-time Immersive Simulation chamber with visualization tools that will allow researchers to interactively modify ongoing model simulation and to retrieve, inject, or modify relevant model parameters, thereby conducting a real-time what-if analysis to better predict the outcome of possible interventions and public health strategies. The center will facilitate the collaborative effort of researchers from diverse domains, including Biology, Geography, Computer Science, Biostatistics, Epidemiology, Public Health, and Environmental Science.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 59,559
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 59,559**

Title	Chile Group - UNT and Pontificia Universidad Catolica De Chile Satellite Office
Description	Sub Antarctic Collaboration with Pontificia Universidad Catolica De Chile.
Purpose/Intent	To establish a UNT Office and study the biological and cultural attributes of the sub-Antarctic region of southern Chile. The UNT-Chile Field Station serves as nature's laboratory for bio-cultural conservation.
What makes this project a good investment for the state or institution?	The projects established collaborative relations and promote collaborative research between the two institutions while increasing the research reputation of UNT on an international level.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 1,639
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 1,639**

Title	Clean Room
Description	Build a clean room
Purpose/Intent	Clean room will provide valuable research resources to the faculty and students in the North Texas Area. Use of clean room will aid in gaining external funding and research in the areas of Micro/Nano-electronics, Sensors, Bio-photonics, nanotechnology, MEMS/NEMS, lithography, LEDs and Solar Cells.
What makes this project a good investment for the state or institution?	It will extensively augment UNT's existing materials characterization and analysis resources. The opportunity to co-locate the equipment housed in the Center for Advanced Research and Technology with a new clean room is a major step toward integrating world-class research into our institution and adds UNT to an elite group of public institutions nationwide that offer this unique complement of facilities and high-powered instruments.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 542,611
Total	**$ 542,611**

Title	Next Generation of 911 Services
Description	Overhaul of the 911 infrastructure to increase efficiency of emerging technology.
Purpose/Intent	An effort to track 911 phone calls made from Internet-based phones. VoIP is tied to an Internet address rather than a physical location. Also, developing software to detect and block spam from overloading the emergency service system and developing technologies that alert the public to emergencies more effectively. This project will create a 911-test bed for future research and experiment on the next generation of 911 services.
What makes this project a good investment for the state or institution?	Within the next decade, VoIP is likely to replace the traditional telephone system. The research is timely. Driven by lower costs, more than 24 million people in the United States have switched to Voice-over Internet Protocol (VoIP) making adequate 911 services a paramount concern.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 12,570
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 14,419
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 26,989**

Title	Laboratory for Imaging Mass Spectrometry
Description	Electrical Contract (Dropping new lines) Regulators Pumps.
Purpose/Intent	The plan is to make this a multidisciplinary Mass Spectrometry lab, with the emphasis on Chemical, Biochemical, and Environmental analysis.
What makes this project a good investment for the state or institution?	The lab will have the new Laser ablation ICP-MS, of which there are only 10 in the US. This lab also has three grants currently out for MALDI, and LC-MS instruments.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 2,213
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 2,213**

Title	Faculty Research Funding
Description	Competitive research funding is available to faculty to assist in the gathering of preliminary data that can be used to support external grant applications, and to conduct research for which external funding is not available.
Purpose/Intent	When external funding is available for the recipient's research area, UNT expects faculty to submit a proposal for extramural funding using preliminary research results within six months of the projects' termination date. When external funding is not available, UNT expects to see scholarly outcomes (articles, books, presentations, exhibits, etc.) to result from the funded work.
What makes this project a good investment for the state or institution?	In fundable areas, there is a high probability the university will receive extramural grants and contracts for continuation or extension of the research activity if initial support is provided by the university using the Research Development Funds. In other areas, the published/presented outcomes of the supported research enhance the research reputation of the university.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 122,827
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 138,958
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 261,785**

Title	High Performance Computing Cluster
Description	High Performance Computer
Purpose/Intent	Provide resources to existing researchers on campus who need access to large numbers of compute cycles to accomplish their research. Provide evidence to prospective faculty members in UNT's ability and willingness to support their research.
What makes this project a good investment for the state or institution?	With innovative methods for disseminating and making visible to the public digital products that UNT researchers and scholars have designated for open access. With enhanced research capabilities, the HPC centers will be an integral part of ongoing research projects with significant timesavings, increased processing capacity, and additional needed storage capacity.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 169,600
Total	**$ 169,600**

Title	Initiative for Improvement of Research Infrastructure
Description	Internal competition held to grant funds to departments, faculty, and colleges/schools in order to improve infrastructure related to research. Proposals were submitted and review by an internal committee to determine which infrastructure improvements would best benefit the most faculty and students.
Purpose/Intent	Leverage efforts by the Deans and Chairs to strengthen research enterprise in their areas, improve research productivity of their faculty, and enhance graduate and undergraduate research experience.
What makes this project a good investment for the state or institution?	These grants allowed upgrades of equipment and purchases to enhance research opportunities on campus. Close attention paid to proposals that were interdisciplinary in nature and allowed different departments and college/schools to collaborate. Good equipment enables good research and allows researchers to accomplish what they could not do without with the equipment.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 308,235
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 308,235**

Title	Industry/University Cooperative Research Centers Program
Description	Establish center that develops long-term partnerships among industry, academe, and government.
Purpose/Intent	Conduct research and rely on graduate student involvement in high quality research projects, thus developing students who are knowledgeable in industrially relevant research that is of interest to both the industry and the center.
What makes this project a good investment for the state or institution?	Initially this I/UCRC will consist of three major universities which will work closely with leading companies, including Boeing, Cisco, EDS/HP, Fujitsu, Lockheed Martin, Raytheon, and others to enable the rapid development of highly dependable systems for critical net-centric defense, civil infrastructure, commerce, and other application domains. Net-centricity is the key to enabling increased productivity, performance, agility, and dependability in several areas that can have significant positive impact on modern society, including enhancing security, reducing pollution, enabling better health-care, and facilitating rapid response to emergencies.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 16,845
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 2,384
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 19,229**

Title	Substrate-mediated Self-assembly of Graphene Monolayers: A Tool-kit for Graphene/CMOS Integration
Description	Developing novel processes for practical integration of graphene and CMOS structures and materials.
Purpose/Intent	Develop methods for substrate-directed self-assembly of graphene monolayers and multilayers on hexagonal (Al203(0001), hexagonal BN (h-BN(111)), CU(111) or Ru(001)), and amorphous (Si02substrates at low thermal budgets--thus developing direct routes toward the integration of graphene-based nanoelectronics with CMOS at the packaging/interconnect or device levels.
What makes this project a good investment for the state or institution?	Work will critically influence the integration of graphene-based structures with CMOS. Further, the ability to assemble graphene-insulator-Cu (or Ru) structures on (111)-oriented interconnect lines will permit the use of graphene interconnects as active device elements because graphene layers exhibit electric field mediated conductivity. Therefore, the integration of graphene with CMOS will permit the development of switchable interconnects, with the potential for novel device and logic architectures.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 14,236
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 6,952
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 21,188**

Title	Fundamental Studies of Plasma Etching, Cleaning and Treatment of Ultra-Low-k Material Surfaces.
Description	Collaborative effort between a surface science group and a plasma chemistry/engineering group, focused on the fundamental study of plasma/surface interactions and with the goal of developing novel or enhanced processes for ultra-low k etching pro sealing and surface modification for enhanced barrier metallization.
Purpose/Intent	Work complements the tasks associated with vacuum measurements of species influencing ultralow k materials. It also builds on work over the last several years in modeling atmospheric pressure plasma sources. It is possible that these novel sources will offer a number of advantages for these and other applications.
What makes this project a good investment for the state or institution?	The main value of the research is establishing the connection between what happens at the surface and the effects occurring in plasmas. There is an increased demand for molecular-scale control processes to meet the increasingly stringent device demands. The challenge of molecular-scale engineering of films, surfaces, and interfaces will be advance. In addition, the project will provide a regular basis for knowledge transfer and research coordination.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 43,183
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 7,322
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 50,505**

Title	Space Colonization Research and Tech Development Opportunity - Phase I
Description	Guided Planetary Surface Exploration using Rovers and Wireless Sensor Networks.
Purpose/Intent	Investigating the research challenges involved in the safe navigation of future generation of rovers on Mars. Investigating approached that will lead to Guided Planetary Surface Exploration Using Rovers and Wireless Sensor Networks.
What makes this project a good investment for the state or institution?	This project was an extension of previous research work where some of the important system design issues and challenged involved in the process of designing the next generation of autonomous landing and navigation systems for the rovers. The current funding is expected to lead up to obtaining sustained collaboration between the university and NASA-MSFC through faculty visits and internships for graduate and undergraduate students. The principal investigator is currently establishing a multi-robot platform capable of autonomous navigation of on-board image processing and wireless communication with the funds. UNT will use the platform to highlight NASA research and develop programs that work with the Texas high schools. It also will encourage high school students to pursue an engineering education.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 3,000
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 0
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 3,000**

Title	Pursuit of Extramural Support Travel
Description	Funds used to help sponsor trips made by faculty members to visit external funding agencies.
Purpose/Intent	Assist faculty members with expenses on trips made to visit with program directors about proposal submissions and their individual programs.
What makes this project a good investment for the state or institution?	Faculty members return from these trips with valuable information that they share with others about obtaining extramural funding from the respective agencies, and details about new programs, proposal guidelines and the content of successful submissions.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 4,322
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 4,322**

Title	Research and Creativity Enhancement Awards	
Description	Competitive awards that support selected tenured faculty in the liberal arts and fine arts to enhance their research, scholarly, and/or creative endeavors.	
Purpose/Intent	Competitive awards for a specific project to enhance the research, scholarly, and or creative endeavors of faculty members in the Arts & Humanities.	
What makes this project a good investment for the state or institution?	Recipients agree to present the results of their funded work to the UNT community at a designated time in the subsequent year. They are also expected to submit a proposal for extramural funding using preliminary research results within six months of the projects' termination date.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 148,463
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 37,963
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 186,426**

Title	Research Development Team
Description	Research Development Team is a team of highly qualified professionals created to support UNT faculty in the education, development, and writing of research, proposals to federal, and state government agencies, industry foundations and non-profit organizations. They hold several workshops, seminars, and short courses that are designed to help students, faculty members and staff members learn and develop crucial skills in submitting proposals.
Purpose/Intent	The team assists the faculty in developing research partnerships across the UNT colleges and departments, with the UNT Health Science Center, and with other institutions in the DFW metro area and the nation. They facilitate faculty in the development of proposals and provide guidance on gaining external funding across the University in both the humanities and social science areas. The team utilizes workshops, seminars, conferences, group, and one-on-one training to give general concepts and details on how to write for the different types of reviewers. They give information about reviewers and the reviewing process and teach faculty how to turn their research into fundable research.
What makes this project a good investment for the state or institution?	The major benefit of this team is in expanding external funding and meeting the criteria of the Texas Higher Education Coordinating Board (THECB). They utilize guest speakers, with extensive backgrounds in their specific research areas, along with personal experience, large research projects, and their roles as reviewers for agencies such as NSF and NIH. The team has valuable skills and gives UNT the direction needed to facilitate external funding. They give aid to new and junior faculty, support multidisciplinary and interdisciplinary research teams, and manage diversity in the research enterprise and long-term proposal planning. The Research Development Team benefited the university by assisting faculty in requesting external grant applications and gave instructions in writing and submitting proposals that rate higher, increasing the likelihood they will become more successful in obtaining external grants.
Financial	

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 546,694
Operating Expenses	$ 22,227
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 568,921**

Title	Small Grant Program	
Description	Small internal grants (usually $1,000 or less)	
Purpose/Intent	Supplement funds from departmental or other university sources for a given project.	
What makes this project a good investment for the state or institution?	These funds allow researchers to meet unexpected research cost that arise during the academic year without causing delays in their respective research.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 1,840
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 18,446
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 20,286**

Title	Autonomous University of the State of Mexico (UAEM)
Description	Competitive awards that support joint projects between the two institutions.
Purpose/Intent	To establish seed funding in order to support joint projects that strengthen the close academic relationship between the two institutions and constitute an opportunity to enhance with an international component the training of postgraduate students involved in research projects.
What makes this project a good investment for the state or institution?	These research projects encourage scientific and humanistic research as well as technological development with joint research projects that include the academic exchange of postgraduate students, from both institutions. These collaborations strengthen the activities of knowledge production and contribute to the enhanced relations of international research and academic cooperation between the two universities. They also contribute to UNT's efforts in the area of global research and education.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 6,319
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 10,081
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 16,400**

Title	UNT-UNTHSC Joint Institutional Seed Research Program
Description	Collaborative grant program that enhances collaborations between UNT and the University of North Texas Health Science Center.
Purpose/Intent	Projects foster collaborative research between UNT and UNTHSC faculty. Enhance opportunities for external research funding.
What makes this project a good investment for the state or institution?	Program helps to increase grant opportunities and collaborative research efforts between UNT and UNTHSC faculty to work on innovative ideas and concepts. It enhances opportunities for external research funding, particularly from Federal agencies at the institutions. These collaborations help to increase research capacity and the ability to pursue additional federal, state, and private funding.

Financial

Salaries/Wages for New or Reassigned FTEs	$ 15,702
Salaries/Wages for Existing FTEs	$ 0
Operating Expenses	$ 30,572
Staff Benefits	$ 0
Capital Expenditures	$ 0
Total	**$ 46,274**

Title	Research Liaisons	
Description	UNT supported research liaisons between colleges and the research office.	
Purpose/Intent	The liaisons facilitate faculty members with obtaining external funding and provide guidance on research in their perspective areas.	
What makes this project a good investment for the state or institution?	Facilitate collaborations between researchers, the VP for Research & Economic Development, Research Directors and external funding agencies. The intent is to provide leadership in the development, coordination, and management of the academic centers, institutes, and programs of the university. Build the research capacity of colleges and programs. These positions work closely with the VP for Research & Economic Development, Directors of Research Development and help increases the research knowledge base in their perspective areas.	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 26,871
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 0
	Total	**$ 26,871**

Title	Research Development Fund
Description	Office of Sponsored Research
Purpose/Intent	The Research Development fund appropriation was intended to support the Office of Sponsored Research to assist faculty in securing external funding, adminstration of funding and assurance of compliance requirements, to further their research activities.
What makes this project a good investment for the state or institution?	The Research Development Fund benefited the university by assisting faculty in requesting grant application dollars in fiscal yr 10

Financial

Salaries/Wages for New or Reassigned FTEs	$ 0
Salaries/Wages for Existing FTEs	$ 174,982
Operating Expenses	$ 91,210
Staff Benefits	$ 0
Capital Expenditures	$ 703,246
Total	**$ 969,438**

Title	Carried Over - FY 2010	
Description	Research Development Fund	
Purpose/Intent	Projects in process as of 8/31/09 were not expended but were encumbered to be spent.	
What makes this project a good investment for the state or institution?	The Research Development Fund benefited the university by assisting faculty in requesting grant application dollars in fiscal yr 10	
Financial	Salaries/Wages for New or Reassigned FTEs	$ 0
	Salaries/Wages for Existing FTEs	$ 0
	Operating Expenses	$ 0
	Staff Benefits	$ 0
	Capital Expenditures	$ 101,293
	Total	**$ 101,293**