

## 2010 RECIPIENTS OF SUMMER RESEARCH STIPENDS

STUDENT	DEPARTMENT	MENTOR	DOLLARS AWARDED	FUNDING SOURCE	RESEARCH PROJECT
Aguwa, Nancy	UT Southwestern / Dermatology	Heidi Jacobi	\$1,750	Medical Designated Tuition Scholarship	To identify possible correlation between autoantibody profiles and clinical subtypes in adult morphea subjects vs. age-, sex-, and race-matched healthy scleroderma controls; to perform pilot study to determine efficacy of proteasome microarray in identifying novel autoantibodies associated with morphea subtypes
Aounallah, Nabil	Family & Community Medicine	Sandra K. Burge, PhD	\$1,500	Medical Dean's Office	To conduct prospective cohort study of chronic low back pain over 5 year study; assess changes in treatments, pain, and functional status over time; examine predictive influences
Brown, Raymond	Pharmacology	Marilyn McGinnis, PhD	\$2,000	Medical Designated Tuition Scholarship	Test hypothesis that pubertal exposure to high levels of anabolic steroid, stanozolol, alters dendritic spine density in hippocampus
Burks, Margaret	Pediatrics	Pamela Wood, MD	\$2,000	Medical Designated Tuition Scholarship	To determine prevalence of Mycoplasma pneumoniae in hospitalized children presenting with acute asthma attack and in children with refractory asthma compared to children without asthma

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Byrne, David	Anesthesiology	Maxim Eckmann, MD	\$2,000	Medical Designated Tuition Scholarship	To collect demographic data and medication profiles of patients presenting to UTHSCSA pain clinic for new patient evaluation; to stratify incidence of opioid medications used in chronic pain population
Cecere, Margaret	Family & Community Medicine	Sandra K. Burge, PhD	\$1,500	Medical Dean's Office	To conduct prospective cohort study of chronic low back pain over 5 year study; assess changes in treatments, pain, and functional status over time; examine predictive influences
Chang, Elizabeth	Pediatrics	Alice Gong, MD	\$1,750	Medical Dean's Office	To examine breastfeeding knowledge and attitudes of non-pregnant women and men who receive breastfeeding information using audio book compared to those receiving information from educational pamphlet
Cortes, Orlando	Anesthesiology	Ethan Rosenberg, MD	\$2,000	Medical Designated Tuition Scholarship	To determine effect of alpha2delta-1 trafficking disruption on morphology and formation of neurites following peripheral nerve injury; to determine if peripheral neurite formation superseding injury is dependent on interaction of TSP 3 with alpha2delta-1

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Crandall, Sarah	Surgery	Robert Johnson, MD	\$1,750	Medical Dean's Office	Investigate effects of hemoperitoneum on endogenous carbon monoxide generation and platelet aggregation; to determine if hemoperitoneal blood affects platelet aggregation
de la Garza, Elizabeth	Ob/Gyn	Nameer Kirma, PhD	\$1,500	Medical Dean's Office	To examine effects of drugs that block transforming growth factor beta (TGF-beta) pathway on development of endometriosis
ElDabaje, Robert	Orthopaedics	Roberto Fajardo, PhD	\$2,000	Medical Dean's Office	To investigate risk of non-traumatic (low energy) vertebral fracture in adult Type 2 diabetics in San Antonio community
Garapati, Karthik	Urology	Pratap Kumar, PhD	\$1,750	Medical Dean's Office	To utilize a novel compound in combination with current chemotherapeutic treatment for prostate cancer that has ability to enhance anticancer activities
Garling, Richard	Neurosurgery	Murat Digicaylioglu, MD, PhD	\$2,000	Medical Designated Tuition Scholarship	To determine if EPO plus IGF-1 treatment decreases edema formation in transient ischemic mouse model; to determine if EPO plus IGF-1 treatment improves survival of astrocyte in transient ischemic mouse model
Garza, Alejandra	Family & Community Medicine	Sandra K. Burge, PhD	\$1,500	Medical Dean's Office	To conduct prospective cohort study of chronic low back pain over 5 year study; assess changes in treatments, pain, and functional status over time; examine predictive influences

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Gonzalez, Adriana	Family & Community Medicine	Sandra K. Burge, PhD	\$1,500	Medical Dean's Office	To conduct prospective cohort study of chronic low back pain over 5 year study; assess changes in treatments, pain, and functional status over time; examine predictive influences
Grinnan, Jack	Johns Hopkins / Surgery	Dorry Segev, MD, PhD	\$2,000	Medical Dean's Office	To quantify relationship between frailty and hospital length of stay following kidney transplantation
Hale, Seth	Biochemistry	Chongwoo A Kim, PhD	\$1,250	Medical Dean's Office	Determine polymeric state of human Polyhomeotic 3 (hPh3) SAM domain; determine mechanism that limits hPh3 SAM domain polymerization
Holloway, Jacob	UTSA - Biomedical Engineering	Mark Ryan Appleford, PhD	\$2,000	Medical Dean's Office	Design, manufacture and biocompatibility testing of novel hybrid scaffold for bone tissue engineering
Hong, Deborah	Urology	Rita Ghosh, PhD	\$2,000	Medical Dean's Office	Determine signaling pathway(s) used by Nexrutine <sup>TM</sup> and its active compounds to induce apoptosis in human bladder cancer cells
Kitchens, Benjamin	Baylor Heart and Vascular Institution	William Clifford Roberts, MD	\$1,750	Medical Designated Tuition Scholarship	To determine whether aorta of patient who has undergone an acute aortic dissection is normal or abnormal; assess success of acute aortic resection
Kupersmith, Lucy	Anesthesiology	Maxim Eckmann, MD	\$1,500	Medical Dean's Office	To identify whether incidence of abnormal CLOX testing is different in chronic pain population when accounting for age and cardiovascular risk factors

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Lara, Olivia	Family & Community Medicine	Sandra K. Burge, PhD	\$1,500	Medical Dean's Office	To conduct prospective cohort study of chronic low back pain over 5 year study; assess changes in treatments, pain, and functional status over time; examine predictive influences
Lee, Annie	Physiology	Peter Hornsby, PhD	\$1,500	Medical Dean's Office	To develop broader understanding of potential for iPSCs in regenerative medicine; reprogram somatic marmoset cells to iPS cells; differentiate iPS cells to osteogenic/chondrogenic lineages
Liu, Grace	GCCRI	Gail Tomlinson, MD, PhD	\$1,500	Medical Dean's Office	To determine whether or not trisomies of chromosomes 2, 8, 20 are linked to adverse outcomes in hepatoblastoma; to determine whether or not alterations in NOTCH2 gene via translocations of chromosome 1 are correlated to adverse outcomes of hepatoblastoma
Logan, Sarah	Urology and C&S Biology	Susan Padalecki, PhD	\$1,750	Medical Dean's Office	Obesity and diabetes have significant effects on prostate cancer (PCa) growth and progression in part due to stimulation of tumor cells by adipose tissue-derived factors
Luo, Roy	Family & Community Medicine	Sandra K. Burge, PhD	\$1,500	Medical Dean's Office	To conduct prospective cohort study of chronic low back pain over 5 year study; assess changes in treatments, pain, and functional status over time; examine predictive influences

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Lyons, Lauren	Family & Community Medicine	Sandra K. Burge, PhD	\$1,500	Medical Dean's Office	To conduct prospective cohort study of chronic low back pain over 5 year study; assess changes in treatments, pain, and functional status over time; examine predictive influences
Malik, Aden	Surgery	Edward Sako, MD, PhD	\$1,750	Medical Dean's Office	Evaluate effect and mechanism of action of Clostridium botulinum toxin type A - Botox on contraction of vessel rings of human internal thoracic arteries used as coronary bypass graft when exposed to vasoconstrictive stimulation
Mankus, Erin	Pediatrics	Edward Brooks, MD	\$2,000	Medical Designated Tuition Scholarship	To collect and evaluate various environmental risk factors associated with asthma in children from low income Hispanic households
Marquez, Adrian	GCCRI	Manjeet Rao, PhD	\$2,000	Medical Dean's Office	To understand underlying mechanism of Six1-dependent TRAIL-mediated apoptosis resistance in breast cancer cells
Martinez, Adrian	GCCRI	Manjeet Rao, PhD	\$2,000	Medical Designated Tuition Scholarship	To determine whether small non-coding RNA (microRNAs) play role in regulation of genes involved in breast cancer drug sensitivity
McIntyre, Jonathan	Molecular Medicine	Bandana Chatterjee, PhD	\$1,750	Medical Dean's Office	To explore relationship of prostate cancer progression with levels of specific microRNA and its target protein

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Milano, Vanessa	Cellular & Structural Biology	Patricia Dahia, PhD	\$1,500	Medical Dean's Office	To characterize role of recently identified tumor suppressor FP within critical component of mTOR signaling pathway; identify FP-protein interactions via mass spectrometry analysis of immunoprecipitates; evaluate extent of FP interference in other neural-derived tumors
Moreno, Jaime	Radiation Oncology	Alonso N Gutierrez, PhD	\$2,000	Medical Dean's Office	To evaluate dosimetric quality of radiosurgery treatment plans delivered with both cone-based and microMLC-based techniques; to evaluate if benefit exists by using microMLC- over cone-based techniques for various cranial tumors
Najera, Omar	Oto/HNS	Ande Bao, PhD	\$1,500	Medical Dean's Office	To investigate liposome-carrying beta-emitting radionuclides for treatment therapy of head and neck cancers; to study effects of convection-enhanced delivery through intratumoral infusion of liposomal rhenium-186 on head and neck cancer
Nanyes, Jennifer Edwards	Medicine/Dermatology	Jennifer Krejci-Manwaring, MD	\$2,000	Medical Dean's Office	To analyze and synthesize current research on prevention, diagnosis, and treatments for cutaneous leishmaniasis

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Nielsen, Matthew	Urology	Dipen Parekh, MD	\$1,750	Medical Dean's Office	Patient's assessment of sexual function, bladder function, and overall quality of life after undergoing robotic assisted prostatectomy compared to open prostatectomy
Oler, Paul	Neurosurgery	Murat Digicaylioglu, MD, PhD	\$1,750	Medical Dean's Office	Identify one biomarker to predict progressive or intractable epilepsy in new-onset patients; identify and validate one biomarker to predict development of epilepsy in at-risk individuals
Osadebe, Uche	Orthopaedics	Anil Dutta, MD	\$1,750	Medical Designated Tuition Scholarship	Develop classification system for subset of humerus non-union fractures
Otto, Sheena	Radiology	Srinivasa Prasad, MD	\$1,250	Medical Dean's Office	To correlate cross-sectional radiological findings with clinical/laboratory findings in patients with eosinophilic gastro-enteritis to better enable diagnosis of this syndrome



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Patzek, Sophie	UCLA / Endocrinology	Carl Grunfeld, MD, PhD	\$1,750	Medical Dean's Office	Conduct cross-sectional study of RA patients and controls to determine spectrum of pro-atherogenic lipoprotein abnormalities and prevalence of these abnormalities in RA; to determine degree to which clinical assessments of RA disease activity, markers of systemic inflammation, and therapeutic regimens are associated with pro-atherogenic lipoprotein abnormalities
Porter, Anne	Cellular & Structural Biology	Robin Leach, PhD	\$1,500	Medical Dean's Office	To determine whether Calcium signaling profiles are different in oligodendrocytes from mice who lack gene for Myelin Basic Protein when compared to wild type mice
Rahman, Ata-Ul	Medicine	Eric Mortensen, MD	\$1,750	MSTAR Program	To examine whether prior outpatient antibiotic use is associated with improved outcomes after adjusting for potential confounders, for those subsequently hospitalized with pneumonia
Ramos, Rachell	Surgery	Michael Corneille, MD	\$1,500	Medical Dean's Office	To identify indications of IVC filter placement on trauma patients; to compare differences in patterns of practice, rate of usage, and population in which IVC filters are used in patients with retrievable versus permanent filers

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Rana, Shushan	Neurosurgery	Murat Digicaylioglu, MD, PhD	\$2,000	Medical Dean's Office	To determine effect of insulin like growth factor-1 (IGF-1) on expression levels of microRNAs in neurons and hypoxic neurons; to determine if IGF-1 treatment in an in vivo stroke model induces similar miRNA expression
Richmond, Abby	Medicine / Cardiology	Claude Jourdan Le Saux, PhD	\$1,250	Medical Dean's Office	To establish pyridinoline (Pyr) as a marker, in either urine or serum of patient, which will indicate extent of disease pulmonary fibrosis
Rigby, Richard	Urology	Rita Ghosh, PhD	\$1,250	Medical Dean's Office	To determine in vitro efficacy of Nexrutine™ and its active components, Palmatine and Berberine to inhibit bladder cancer cell survival;
Russell, Joshua	Orthopaedics	Roberto Fajardo, MD	\$2,000	Medical Dean's Office	To test whether minimally invasive approach with 2 fewer screws in proximal humeral fracture repair as significant effect on biomechanical functionality versus open approach of same procedure including 2 additional screws

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Sacks, Phillip	Radiation Oncology	Zhi-Min Yuan, MD, PhD	\$1,250	Medical Dean's Office	To use animal models to determine effects of low doses of arsenic on modulating stress response in various tissues; to use various cell models for examining mechanisms by which low-doses of arsenic affect tissues under stressful conditions; to determine potential cancer risk associated with prolonged use of low dose arsenic
Safo, Adelle	Family & Community Medicine	Sandra K. Burge, PhD	\$1,500	Medical Dean's Office	To conduct prospective cohort study of chronic low back pain over 5 year study; assess changes in treatments, pain, and functional status over time; examine predictive influences
Sager, Brian	Cellular & Structural Biology	Alex Bishop, PhD	\$1,750	Medical Dean's Office	To observe effect that removal of one certain component of DNA damage repair pathway, ATR, has on homologous recombination repair of DNA in vivo in mice
Saikumar, Haritha	Ob/Gyn	Rajeshwar Rao Tekmal, PhD	\$1,750	Medical Dean's Office	Test efficacy of natural (plant derived) ER $\alpha$ agonist (Nyasol) to block proliferation endocrine therapeutic resistant breast cancer cells; test therapeutic potential of novel nanoparticle formulation that contains an ER $\alpha$ agonist (Nyasol) and AI (aromatase inhibitor, letrozole), letrozole combination to restore sensitivity to therapeutic agents

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Salhanick, Marc	Surgery	Daniel Dent, MD	\$2,000	Medical Dean's Office	Determine hematologic profile of blood collected in chest tube output reinfusion drain from patients suffering traumatic injury; specifically identify clotting factor deficiencies which could explain prolonged clotting time in apparatus; determine safety and efficacy of reinfusion of blood when indicated
Samples, Derek	Neurosurgery	Murat Digicaylioglu, MD, PhD	\$2,000	Medical Dean's Office	Test hypothesis that inhibition of P450 enzymes lead to thermal analgesia in rats; to evaluate whether cytochrome P450 inhibitor produces peripherally mediated thermal analgesia in rats
Skunda, Raymond	Orthopaedics	David Dean, PhD	\$2,000	Medical Dean's Office	To examine effect of ultrahigh molecular weight polyethylene (UHMWPE) particle size and dose on mesenchymal stem cell (MSC) behavior
Stirton, Jacob	Orthopaedics	Roberto Fajardo, MD	\$1,500	Medical Dean's Office	Develop broader understanding of potential effects of Rapamycin on bone growth and development; use uCT imaging to analyze trabecular bone formation; use Piximus imaging to determine bone density; prepare histological sample of bone and analyze for presence/number of osteoclasts

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Thompson, Molly	Ophthalmology	Daniel A. Johnson, MD	\$1,250	Medical Dean's Office	To review surgical results of patients for whom allogenic human amniotic membrane was used during pterygium surgery
Vinas, Ariel	Medicine/Cardiology	Claude Jourdan Le Saux, PhD	\$1,500	Medical Dean's Office	To establish correlation between hemodynamics and structural changes of vessel walls
Wilder, Elizabeth	Psychiatry	Vivek Singh, MD	\$1,500	Medical Dean's Office	To assess acute and long-term bimodal efficacy of QTPO, as adjunct to ongoing treatment with lithium or divalproex or lamotrigine or any combination of the three in group of patients with index episode of mixed state in BD; to assess background, baseline features, and behavioral components which characterize treatment response/non-response in acute and long-term management of MS
Wilkerson, Matthew	Biochemistry	John Lee, PhD	\$1,250	Medical Dean's Office	To determine whether osteoblastic differentiation of bone marrow stromal cells in response to BMP-7 and IGF-1 is impaired in aged wild-type mice and young mice heterozygous for IGF-1 receptor and whether that impairment is exacerbated in IGF-1 receptor haploinsufficiency in aged mice

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Wilson, Bryan	Medicine	Eric Mortensen, MD	\$2,000	MSTAR Program	To examine association between two most frequently used guideline concordant antimicrobial regimes for severe pneumonia, a beta-lactam/fluoroquinolone versus beta-lactam/mcarolides, with 30-day mortality in subjects hospitalized with severe community-acquired pneumonia
Yook, Eun Mee	Ophthalmology	Kent Anderson, MD, PhD	\$1,750	Medical Dean's Office	To investigate torsional changes of eye under various anesthesia