

Name	Email	Department and Division	Broad Research Type	Please use this space to add any notes on the research project and timeframe	Please use this space to add any notes on the weekly time commitment (hr/week), research experience, and responsibilities expected from a medical student.
Robert Clark	clarkra@uthscsa.edu	Medicine / Infectious Diseases	Translational Research;	Our major focus in the lab is on Parkinson's disease (PD). Working in mouse models of PD we investigate the pathogenesis of neuronal injury, develop biomarkers for early diagnosis (e.g., olfactory loss), and seek new therapeutic targets and strategies. We use the tools of genetics, molecular biology, and genomics, including single cell and spatial gene expression techniques.	The time is flexible, although a commitment of 10 or more hours per week is recommended in order to make the experience meaningful for both the student and the lab.
Yu Shin Kim	kimy1@uthscsa.edu	OMS	Basic Science;Translational Research;	Chronic pain and itch study. Addiction and substance use disorder study	10hrs/week
Liang Ma	mal1@uthscsa.edu	Biggs Institute	Basic Science;	(1) computational biology: we analyze multi-omics data from human postmortem brain tissue to identify risk genes related to brain disorders (e.g., Alzheimer's disease, schizophrenia). (2) stem cell biology: we study disease risk genes using human iPSC-derived neurons and organoids as models. learn more on our lab website: <a href="https://labs.uthscsa.edu/ma/">https://labs.uthscsa.edu/ma/</a>	No requirement on weekly time commitment and research experiences.
Noboru Hiroi	hiroin@uthscsa.edu	Pharmacology	Basic Science;		
Jason O'Connor	oconnorj@uthscsa.edu	Pharmacology and Neuroscience (neuro)	Basic Science;Translational Research;Clinical Research ;	We have multiple projects using cell culture, mouse models, and human samples. Broadly speaking, our research is interested in mechanisms by which inflammation impacts the brain. The inflammation may be the result of experimental manipulations or disease condition. Mechanistic focus is on microglia, tryptophan metabolism, and genetic vulnerability/resilience factors. We can generally tailor an experiment to fit any reasonable timeframe (depending on learning curve required for the individual).	More is better, but realistically 10-12 hours a week on average. This often includes intermittent periods where more time is needed balanced with intermittent periods with lower time needed. Being in the lab for shorter times over multiple days per week is always preferable than trying to cram all the hours into a single day or two (i.e. 12 hours on the weekends doesn't work well). Hours can be outside of 8-5 if the needed supervision/support is arranged or the student has demonstrated an ability to work independently. Experience is a plus but not required if the student seems a good fit and highly motivated to learn.
Juli Bai	baij@uthscsa.edu	Cell Systems and Anatomy	Basic Science;Translational Research;	Our research has been dedicated to unraveling novel mechanisms underlying pathophysiological change-induced metabolic diseases, including obesity, diabetes, nonalcoholic fatty liver (NAFL), nonalcoholic steatohepatitis (NASH) as well as hepatocellular carcinoma (HCC). Particularly, our current research is focused on the mitochondrial-ER stress, lipid metabolism, secreted proteins, metabolites, immune receptor and innate immune signaling in the progression of these metabolic disease. We employ various tissue-specific transgenic and/or knockout mouse models, utilizing advanced technologies such as molecular and cell biology, single-cell sequencing, live-cell confocal, live-animal two photon microscopy, along with multi-omics approaches. The aim is to identify novel targets for metabolic diseases. A comprehensive understanding of these key mechanisms will provide crucial insights for the development of innovative therapeutic targets in the treatment of metabolic disorders.	Medical students interested in basic and translational research in metabolic disorder-associated diseases are encouraged to join our research group.
Anjali Sivaramakrishnan	sivaramakris@uthscsa.edu	Physical Therapy, School of Health Prof	Clinical Research ;	Please see below more about the research study: Title: Combining aerobic exercise and virtual reality based games for optimizing neuroplasticity in Parkinson's disease. We use transcranial magnetic stimulation based measures to assess corticomotor excitability, biomarker assays and clinical outcomes to assess change in function before and after intervention. Individuals will perform 8 weeks of high intensity interval training and VR based games or stretching and VR games. This is a randomized controlled trial and is expected to last until end of next year - <a href="https://classic.clinicaltrials.gov/ct2/show/NCT06133283">https://classic.clinicaltrials.gov/ct2/show/NCT06133283</a>	Time commitment is flexible depending on the medical student's schedule. Responsibilities include helping with data collection, analysis and assessment.
Sarah Hopp	hopps1@uthscsa.edu	Pharmacology / Biggs Inst	Basic Science;	My lab studies Alzheimer's disease using mouse and cellular models with many ongoing projects with a focus on microglia and calcium regulation. We use techniques including cell culture, microscopy, molecular biology, histology, and mouse behavior. Techniques vary by specific project.	Students must be available approximately 20 hours per week during the training period during normal working hours Monday-Friday (8am-5pm) before they can proceed with more flexible and independent work on individual projects in the lab. Many lab procedures require hands-on time-sensitive work 2-3 days in a row.
Lizhen Chen	chenl7@uthscsa.edu	CSA	Basic Science;	mechanisms of nerve regeneration after injury and neurodegeneration	20 hours/week
Rachel Pearson	pearsonr@uthscsa.edu	Pediatrics, Pediatric Hospital Medicine		My team at the Cheever Center for Medical Humanities and Ethics is developing an oral history of lives and experiences of people in South Texas living with HIV.	Students with prior training in the humanities and/or a specific interest in HIV are encouraged to reach out. They may participate through the "HIV Out Loud" elective or on an ad-hoc basis by analyzing recorded stories and adding meta-data (which I can train them to do). Students can make a meaningful contribution to the project with about 15 hours (training, analyzing a recording, adding metadata for a single story). Students with expertise in social media, manipulation of audio files, or analysis of educational impact may make unique contributions with 1-2 hours per week of effort.
Shamimunisa Mustafa	mustafa@uthscsa.edu	Pediatrics, Neonatology	Basic Science;Translational Research;	This is an ongoing project in our lab. Comparison between fetal and adult rodent resident mesenchymal stromal cells, isolation and cell culture. Exposing the 2 cell populations to hyperoxia and LPS. Isolation of EVs from the cell culture media, analysis for TSG-6 protein.	No experience required. At least 3 days per week. Med student should be engaged, dedicated and willing to learn new techniques.

Andrew Meyer	<a href="mailto:meyera@uthscsa.edu">meyera@uthscsa.edu</a>	Pediatrics Critical Care and Endocrine	Translational Research;Clinical Research ;	As a pediatric critical care physician-scientist, I am committed to reducing complications associated with biomedical devices in the ICU. Specifically, my focus is on reducing clotting with extracorporeal devices. However, I have worked with students, residents, and fellows on variety of coagulopathy, engineering, and critical care projects. Currently, I am without permanent laboratory staff at UT Health but open to students who have lab experience to process already collected samples from oncology, critical care, endocrinology, and others. Several students have also worked on clinical and retrospective studies looking at coagulation and other biomarkers in critical care. If interested in these ideas, please email me to set up a time to chat.	All projects require a significant time commitment to learn the material, obtain regulatory approval for the student, and work on data collection (5 to 10 hours per week). As very busy physician-scientist that works at federal lab off site. Mentorship is going to be weekly and would require a lot of self-direction and motivation on the part of the student.
Mark Shapiro	<a href="mailto:shapiro@uthscsa.edu">shapiro@uthscsa.edu</a>	Cell & Integrative Physiology	Basic Science;Translational Research;		From 5 hours/week to 40 hours/week, or summers/spring breaks.
Kate Lathrop	<a href="mailto:lathrop@uthscsa.edu">lathrop@uthscsa.edu</a>	Department of Medicine, Division of Med	Clinical Research ;Translational Research;	I usually have a rotation of research project, some are more short term than long term.	While no specific research experience is needed, a commitment to completing tasks on time and communicating with the research team is critical. Students who are looking for a quick way to "jump on and off a project" are usually not successful on my research teams. If you are looking to learn research skills and potentially formulate your our research project, then I am willing to put in the time to mentor you.
Michelle Habash	<a href="mailto:habash@uthscsa.edu">habash@uthscsa.edu</a>	Pediatrics, Critical Care			
Rekha Kar	<a href="mailto:karr@uthscsa.edu">karr@uthscsa.edu</a>	Cell Systems and Anatomy	Basic Science;	Educational research pertaining to anatomy education and anatomical variation	Flexible hours
Adam Salmon	<a href="mailto:salmona@uthscsa.edu">salmona@uthscsa.edu</a>	Barshop Institute/Molecular Medicine	Basic Science;	Aging related projects using cells and animal models focused on basic biology of aging. Metabolism, mitochondrial function and preservation of aging health.	4-8 hr/week
Kevin Koronowski	<a href="mailto:koronowski@uthscsa.edu">koronowski@uthscsa.edu</a>	Biochemistry & Structural Biology	Basic Science;Translational Research;	In the lab, we are interested in how disruption of circadian rhythms in peripheral tissues like the liver and muscle impacts health and disease, more specifically, metabolic disease, breast cancer, Alzheimer's, TBI, and aging.	Make a significant contribution to a project or projects in the lab.
Subrata Debnath	<a href="mailto:nath@uthscsa.edu">nath@uthscsa.edu</a>	Nephrology	Translational Research;Clinical Research ;	Currently, I'm assessing fatigue perception in end-stage kidney disease patients undergoing maintenance hemodialysis. In addition, IRB approval has been received to perform review of electronic medical records to ascertain depression with or without antidepressants in dialysis patients. One clinical trial is evaluating the efficacy of specific amino acids supplements in ameliorating fatigue in hemodialysis patients. Another clinical trial will test the efficacy and safety of bupropion in the treatment of fatigue in hemodialysis patients. These projects are ongoing.	I understand that study and clinical loads of a medical student may be heavy depending on year or exam periods and try to be flexible in terms of expectations. However, I anticipate that a student will have real interest or passion in these projects (in a broad sense) - the burden of these conditions, pathophysiology, clinical research/trials, etc. A student may need access to Epic to abstract medical records, complete IRB ethics training, administer study questionnaires to patients and enter data into REDCap or spreadsheet, interact with patients, and experience with literature review and manuscript drafting, etc. Weekly spent time may range from 5 to 10 hours and travel to dialysis clinics may be needed. There may be an opportunity with handling biological samples and in laboratory experiments.
Jeremy Tanner	<a href="mailto:tannerj1@uthscsa.edu">tannerj1@uthscsa.edu</a>	Neurology, Biggs Institute for Alzheimer's and Neurodegenerative Diseases	Translational Research;Clinical Research ;	<ul style="list-style-type: none"> <li>- Novel biomarkers to diagnosis Alzheimer's disease, Lewy body dementia, and other neurodegenerative diseases</li> <li>- Global neurology and dementia diagnosis and care in sun-Saharan Africa</li> <li>- Chronic traumatic encephalopathy (CTE) in adults with prior repetitive head impacts (football players, rodeo, military)</li> <li>- Lewy body dementia diagnosis, clinical features, and care</li> <li>- Risk factors, preventative factors, and diagnosis of dementia and other cognitive disorders in the South Texas Alzheimer's disease research center, with a focus on Hispanic adults</li> <li>- Clinical features and treatment discovery for NALCN-related diseases, an ultra-rare neurodevelopmental and neurogenetic disease affecting the NALCN ion channel</li> </ul>	Opportunities available in research project leadership or meaningful contribution to advance a research project (would be recognized as author in any resulting publications). Students are expected to have accountability and reliability to complete agreed upon tasks and projects. Prior clinical or translational research experience is an advantage. Weekly time commitment is at least 2-4 hours/week for 6-12 months, or a summer period where can dedicate time to meaningful advance or lead a research project.
Mengwei Zang	<a href="mailto:zang@uthscsa.edu">zang@uthscsa.edu</a>	Barshop Institute/Department of Molecular Medicine	Basic Science; Translational Research	Dr. Zang is a Professor of Molecular Medicine and Barshop Aging Institute at the University of Texas Health San Antonio. Dr. Zang is also the Associate Director of the NIH-funded MSTP (MD/PhD) Program at the University of Texas Health San Antonio. Dr. Zang's laboratory focuses on the nutrient, transcriptional, or alternative splicing regulation of glucose and lipid metabolism. Her laboratory's research is also aimed at identifying new therapeutic strategies and their underlying mechanisms for diabetes, chronic liver disease, and age-related metabolic and liver diseases. The long-term goal of the research in the Zang laboratory is to translate the fundamental findings in cellular metabolism into potential therapeutic strategies for human metabolic liver diseases including the elderly population. Current research in Dr. Zang's laboratory is focused on investigating the molecular mechanisms underlying the pathogenesis of diabetes, MSALD/MASH, and LAD associated with aging.	10-20 hours a week is ideal.