

LONG SCHOOL OF MEDICINE OFFICE FOR RESEARCH



INSIDE THIS ISSUE

- New! GME Seminar Series
- NEW! Medical Student Liaison-Led Seminars
- 2nd Annual Medical Student Research Fall Social- Gear Up for Research
- New! Elective 5061
- Medical Student Spotlight
- Announcement: Internal Funding Awardees
- Kick-off! Grant Development Program
- La Frontera Recap
- LSOM Award Season
- Application Open! Clinical Trials Pilot Project

Message from the Vice Dean for Research

This very first issue of the *Quarterly Newsletter* from the Office for Research in the Long School of Medicine Dean's Office highlights the many activities and initiatives that have been undertaken in the past year. As you peruse the pages, you will see that our initiatives support both basic and clinical research as well as our engagement with the residents and medical students.

In the future issues of the Newsletter, we plan to have sections that highlight faculty/trainee awards, extramural funding and high-profile publications by our investigators across the LSOM. We ask that you please share with us any such accomplishments and activities within your Departments, Institutes and Centers to allow us to share your successes with the rest of the LSOM community. We also plan to highlight LSOM faculty and trainees who embody the spirit of collegiality, generosity and citizenship and serve as role models. Our goal is to provide you with periodic updates through these Newsletters. We welcome your feedback for continued improvement.

Finally on behalf of the LSOM Office for Research, we thank you for contributing and supporting our many initiatives and activities.

- Manjoor Bhat

**Over \$700,000
awarded to
multiple research
teams!**

The Long School of Medicine Office for Research has partnered with Directors from the following institutes to jointly support collaborative, and cross disciplinary research projects that will lead to NIH multi-PI and Program Project awards.



GME & UME **UPDATES**

New!

RESIDENT RESEARCH TRAINING

AUGUST 24, 2023

ALTC 2.203
4:30 PM - 5:30 PM
Understanding and Applying for IRB Protocols at UTHSCSA
Speaker: Krista Kilpadi, MD, PhD, CCRP

NOVEMBER 9, 2023

ALTC TBD
4:30 Pm - 5:30 PM
Approaching Biostatistics Support at UTHSCSA

FEBRUARY 15, 2024

ALTC TBD
4:30 PM - 5:30 PM
Funding Opportunities for Residents and Fellows

MAY 9, 2024

ALTC TBD
4:30 PM - 5:30 PM
Writing and Presenting your Science



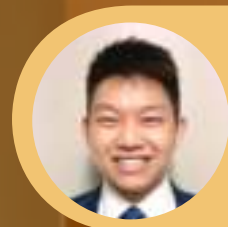
[Register Now](#)

Medical Student Research Liaison Led Events



July

UNDERSTANDING THE RESEARCH GAP YEAR
LED BY CATHERINE HAND, MS 3



August

RESEARCH INTEREST GROUPS LUNCHEON
LED BY ANDREW NI, MS 3



October

CV WORKSHOP
LED BY JARED EASTERLING, MS 3



November

SECURING YOUR RESEARCH PROJECT WITH PROFESSIONAL COMMUNICATION
LED BY RYAN BAILEY, MS 3



December

NAVIGATING RESEARCH TYPES
LED BY TRAVIS KOTZUR, MS 3





ELECTIVE 5061:

Basic Science Training for Medical Students

The LSOM Basic Science Training Elective provides 1st and 2nd-year medical students with technical training.

- Under a peer-to-peer teaching model, graduate students and postdoctoral fellows lead the lectures and the hands-on technical training
- Formal training opportunity to learn fundamental basic science techniques from potential senior labmates
- Students will be better equipped with vetted technical skills to participate in basic science research.

Medical Student Research Fall Social

LSOM Office for Research is hosting its 2nd Annual Medical Student Research Fall Social.

MS1 and MS2 students interested in research are invited to learn from UTHSCSA institute, center, and department leaders about their work, research opportunities, and how to be the ideal mentee.

Courses and Instructors

WESTERN BLOTTING:

Taught by: Jessica Johnson and Courtney Johnson, PhD

DNA AMPLIFICATION:

Taught by: Behnam Ebrahimi and Guannan Li, PhD

IMMUNOCYTOCHEMISTRY:

Taught by: Tony Lin and Jason Hadley, PhD

CONFOCAL MICROSCOPY:

Taught by: Manpreet Semwal, PhD and Meredith Ogle, PhD

Wednesday, September 13
3:30- 5:00 PM



REGISTER NOW!



MEDICAL STUDENT SPOTLIGHT

Two Medical Student Research Liaisons win 2023 MESA Award for Outstanding Presentation by a Trainee

Simren and Alex worked with the Office for Research in 2022 to conduct a survey to evaluate barriers and facilitators to medical student research at the LSOM. They presented their research at the 2023 Southern Group on Educational Affairs (SGEA) conference and won the 2023 Medical Educational Scholarship Award for Outstanding Presentation by a Trainee. They will be presented with the award at the 2024 SGEA meeting.

The Office for Research has been actively working on using these key findings to improve how we support medical student research. Simren and Alex's work has shed light on fostering student-faculty mentorship rather than students solely focusing on singular research projects.



Simren Lakhotia, MS 4



Alex DeLeonm, MS 4

“Excellent job overall. An interesting study that is novel yet practical and the results would be helpful to students/faculty researchers. Very organized, well-thought-out presentation.

- SGEA Poster Reviewer



Congratulations!

Clinical Trials Pilot Project AWARDEES

Shraddha Dalwadi, MD

**Assistant Professor
Radiation Oncology**

Title: Apobec3 expression in head and neck cancer as a novel biomarker of response to definitive chemoradiation: a pilot prospective cohort study



"The LSOM Clinical Trials Pilot Program allows me the necessary resources to collaborate with experts across disciplines. This funding will go towards an innovative first-in-human study that has great potential to improve outcomes for head and neck cancer patients. As an early-career clinician, I also appreciate the opportunity to participate in structured mentoring and a grant writing workshop."

- Dr. Shraddha Dalwadi

Ahmed Mansour, MD

**Associate Professor
Urologic Oncology**

Title: Restriction Spectrum Imaging (RSI) MRI Technique for Evaluation of Response to Systemic Therapy in Bladder Cancer: Pilot Clinical Trial



"We propose a pilot clinical trial using a novel technique named Restriction Spectrum Imaging (RSI)-Magnetic Resonance Imaging (MRI) to predict response of bladder cancer to systemic therapy. Predicting response to systemic therapy would support shared decision-making and patient selection by reserving systemic therapy for those who are most likely to benefit from it."

- Dr. Ahmed Mansour

2023 MULTI-PI PROJECT AWARDEES

“ The awarded projects demonstrate exceptional potential for impactful and innovative research, aligning with our institution's commitment to advancing knowledge and improving healthcare outcomes. ”

- Dean Hromas



Swati Banerjee, PhD
Associate Professor
Cellular and Integrative
Physiology



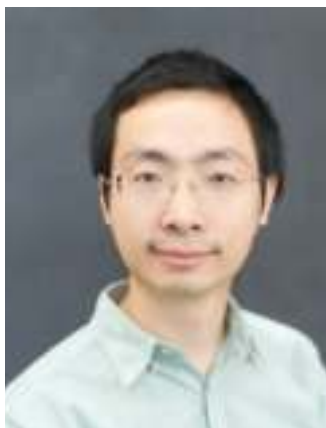
Yidong Bai, PhD
Professor
Cell Systems and Anatomy

Investigating the Molecular Mechanisms and Pathophysiological Consequences of TPPP/Ringer Loss in Neurons

Drs. Banerjee and Bai have developed a new fly model for Parkinson's disease (PD) using a mutation in a *Drosophila* homolog of TPPP. The mutant flies show similar symptoms to PD, including locomotor disabilities, neurodegeneration, and mitochondrial damage. The team aims to uncover the role of Ringer/TPPP in mitochondrial health, shedding light on the mechanisms of PD. Their findings may lead to therapeutic targets and additional funding opportunities for further research with clinical implications.



Jeremy Tanner, MD
Professor
Biggs Institute for Alzheimer's
and Neurodegenerative Diseases



Yaxia Yuan, PhD
Assistant Professor
Biochemistry and Structural
Biology

Discovering New Therapies for NALCN-Related Disease

Drs. Jeremy Tanner and Yaxia Yuan aim to develop therapies for the severe neurodevelopmental disorder CLIFAHDD. They seek to identify drugs that can regulate NALCN activity, providing hope for affected children. NALCN is responsible for maintaining neuronal potential and regulating cell activity. Mutations in NALCN cause CLIFAHDD, with no approved treatments currently available. Their dedication to understanding NALCN modulation offers hope to families dealing with CLIFAHDD.





Kumar Sharma, MD
Professor
Department of Medicine



Bernard Fongang, PhD
Assistant Professor
Biochemistry and Structural
Biology

The Role of Neurotoxic Metabolites in Cognitive Dysfunction with CKD

Drs. Sharma and Fongang use spatial metabolomics, cognitive testing, and tissue analysis to understand cognitive impairment in chronic kidney disease (CKD). They focus on tryptophan catabolism and its connection to cognitive decline. Alterations in tryptophan metabolism are seen in CKD patients and animal models, indicating its role in cognitive impairment. These findings could pave the way for clinical trials using enzyme inhibitors to enhance CKD patients' quality of life.



The Role of Whole-genome Doubling (WGD) in Cancer

Drs. Kitagawa and Zheng pioneer research on whole genome doubling (WGD) and neuploidy in cancer cells. WGD has been linked to chromosomal mis-segregation and aneuploidy. The team seeks to identify WGD driver genes, validate candidates like STK11 in lung adenocarcinoma, and explore mechanisms behind tetraploid formation due to driver gene loss. Their work could enhance cancer knowledge and facilitate targeted therapies.



Katsumi Kitagawa, PhD
Associate Professor
Department of Medicine



Siyuan Zheng, PhD
Assistant Professor
Population Health Science



Shangang Zhao, PhD
Assistant Professor
Department of Medicine



Xianlin Han, PhD
Professor
Department of Medicine

Effects of J18/LPE Axis in Amyloid β -Induced Alzheimer's Disease

Drs. Zhao and Han advanced lipid metabolism research in neurodegenerative diseases, particularly Alzheimer's (AD). They focused on LPE, a lipid class strongly linked to AD severity. The team identified a salivary gland protein, J18, with unique regulation patterns: increasing during fasting and calorie restriction (healthy states) and decreasing with aging and obesity (AD risk factors). This suggests J18's importance in AD development and its interaction with LPE. They propose targeting J18 as a therapeutic approach and aim to uncover the underlying mechanisms, translating their findings into AD interventions.



LA FRONTERA

EXPLORING THE CUTTING EDGE OF SCIENCE



CO-DIRECTED BY

Drs. David Gius and Madesh Muniswamy
UT Health San Antonio

GUEST PRESENTERS:

Dr. Swati Banerjee, UT Health San Antonio
Dr. Justin Wilson, Cornell University
Dr. Joseph Baur, University of Pennsylvania
Dr. Lulu Cambronne, University of Texas at Austin

MITOCHONDRIA IN HEALTH AND DISEASE
6.22.2023

Grant Development Program

“ Competitive grant proposals are critical for a successful and rewarding research career. In our program, we break down each component of your grant, and through peer-mentorship set each other up for a successful submission. ”

- David Gius, MD, PhD
Assistant Dean for Research

2023 PARTICIPANTS

Dr. Sunjani Bandela
Dr. Evelien Bunnik
Dr. Byeongyeob Choi
Ms. Ruth Corfah
Dr. Shradha Dalwadi
Dr. Christopher Dayton

Dr. Tatiana Emanuel
Dr. Yong Ge
Dr. Sarah Horn
Dr. Chia-Nung Hung
Dr. Sakie Katsumura
Dr. Elizabeth Leadbetter

Dr. Ahmed Mansour
Dr. Steven Moore
Dr. Shreya Rao
Dr. Josephine Taverna
Dr. Chandana Tripathy
Dr. Chen-Pin Wang
Dr. Zhenming Xu

August - November 2023

Recognizing Excellence in Research

LSOM AWARD SEASON

Nominations Due Friday, September 29

**Master Research Award
for Distinguished Mentor**



**Master Research Award for
Distinguished Researcher**



**Rising Stars
Research Awards**



Scan or click QR code for application details

CLINICAL TRIALS PILOT PROJECT PROGRAM

Up to \$75K/year for a two-year pilot study

The LSOM Dean's Office for Research seeks to support the development of multi-investigator research teams focused on clinical trials through two years of pilot funding support.

Due October 13, 2023



Long School of Medicine OFFICE FOR RESEARCH



Manzoor Bhat, MS, PhD
Vice Dean for Research



Patrick Sung, DPhil
Assoc. Dean for Research



David Gius, MD, PhD
Asst. Dean for Research



Kate Lathrop, MD
Asst. Dean- Medical Student Research



José Cavazos, MD, PhD
Assoc. Dean- Resident Research

MEET THE TEAM



Chris Valdez, PhD
Assoc. Dir., Research Operations



Denise Graham, MPH
Senior Program Coordinator



Jennifer Maldonado
Executive Assistant