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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.

- Manzoor 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.
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 EASTERING, 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

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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

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.

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

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.

“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
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
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

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.

Drs. Jeremey 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.
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.

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.
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

LA FRONTERA
EXPLORING THE CUTTING EDGE OF SCIENCE

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

Visit the Office for Research for complete RFA