

Providing a Quarter Century of Osteopathic Research, Training and More



It all began at the Macy Foundation Conference in Dallas in 1995 when UNTHSC President David Richards and TCOM Dean Benjamin Cohen were challenged to provide the evidence supporting osteopathic manipulative treatment. That set in motion fledgling research efforts on campus that grew over the next few years.

Their efforts were rewarded in 2001 when the American Osteopathic Association requested applications to create a “profession-wide” center for osteopathic research. TCOM was selected from among several colleges of osteopathic medicine and the Osteopathic Research Center was established on campus.

The ORC has since conducted its legacy research involving osteopathic medicine with additional funding from other sources, including the National Institutes of Health, the Osteopathic Heritage Foundation and other osteopathic organizations. Most notably, this research included national population surveys, systematic reviews and meta-analyses, the largest single-site trial involving spinal manipulation, and training a cadre of osteopathic researchers nationwide.

The Pain Registry for Epidemiological, Clinical, and Interventional Studies and Innovation (PRECISION) was established by the ORC in 2016 to enhance its research by using a digital research platform with electronic data capture to study chronic pain. This enabled PRECISION to become a national pain research registry that continued to thrive during the Covid pandemic.

Beyond the ORC’s legacy research, PRECISION also focuses on the benefits and harms of opioid therapy, health disparities, and aspects of the patient-physician relationship, including physician empathy and shared decision-making.

The ORC’s research training mission has evolved with the advent of PRECISION to primarily involve TCOM students. It sponsors the Summer Program in Clinical Research and administers the TCOM Honors Research Practicum. This newsletter recognizes the TCOM students enrolled in 2024 who published research while participating in this research training.

I encourage you to learn more about the ORC through this newsletter and our social media. Please contact me if you are interested in supporting our research or training, or in collaborating with us.

John C. Licciardone, DO, MS, MBA
Regents Professor, Richards-Cohen Distinguished Chair in Clinical Research and ORC Executive Director

Student Research Training Programs



Summer Program in Clinical Research 2024
unthsc.edu/ORCStudentResearch

TCOM Summer Program in Clinical Research

Eleven second-year students chose to spend part of their 2024 summer break taking an intensive clinical research course covering the elements of research design and implementation, including journal club presentations and preliminary hypothesis generation. After receiving their certificates following completion of the course, the three student groups continued to work closely with Dr. John Licciardone on research projects using PRECISION data. These projects involve social determinants of health pertaining to opioid use, the interaction of race and social disadvantage with chronic pain outcomes, and the association of patient pain self-efficacy with long-term outcomes.

The Osteopathic Research Center accepted 32 students for the Summer Program in Clinical Research 2025.

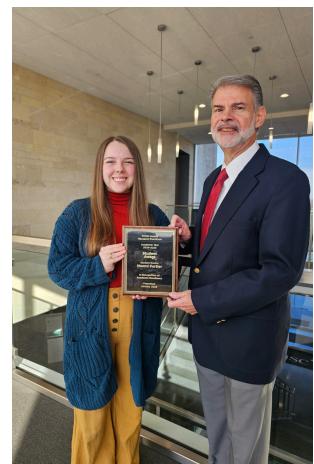
TCOM Honors Research Practicum

This course is available to second-year TCOM students who completed their first year in the top 10% of the class. A total of 22 students enrolled in fall 2024 to learn more about clinical research, including interpreting commonly used clinical research summary measures and critically evaluating the methods, results, and conclusions of articles published in high-impact medical journals such as the New England Journal of Medicine and the JAMA Network. One student group was selected to work with Dr. John Licciardone to complete data analysis and submit a manuscript for a grant project funded by the American Osteopathic Association.

Each year, after completing the course, a student is chosen to receive the TCOM Honors Research Practicum Award, based on performance throughout the course.



Dr. John Licciardone pictured with student doctor Michaela Digilio (2024)



Dr. John Licciardone pictured with student doctor Naomi Fortier (2025)

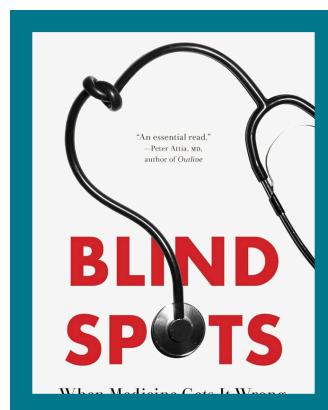
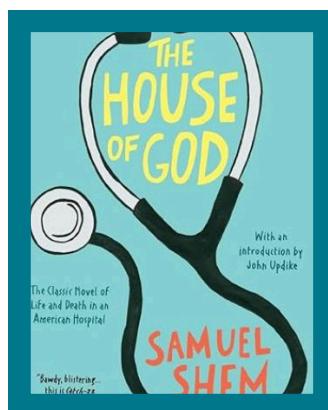
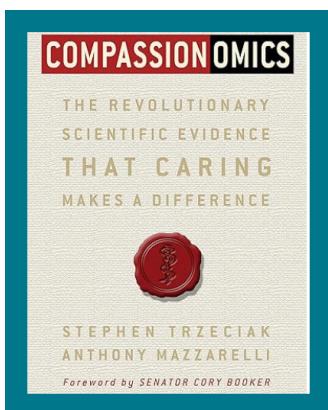
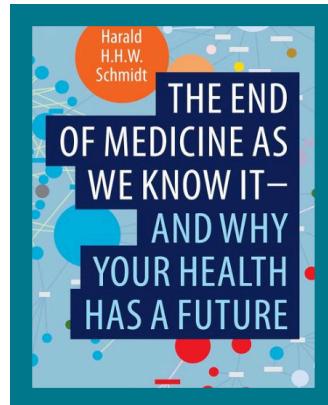
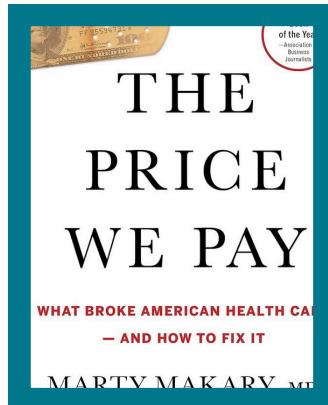
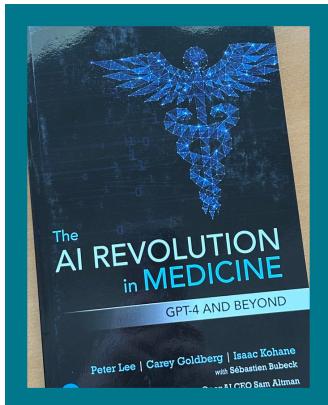


College of Biomedical and Translational Sciences - Clinical Research Management Internship

The ORC hosted Madeline Slater as a clinical research management intern from August 2023 through May 2024. Madeline served as a project coordinator while completing her Master of Science in Clinical Research Management. She gained practical experience in all aspects of PRECISION operations, including data collection and analysis.

Madeline completed her studies using PRECISION data for her thesis titled "Evaluating the Association of Gender as it Pertains to Health-Related Quality of Life Outcomes in Chronic Low Back Pain Patients."

TCOM Contemporary Issues in Medicine Book Club



The Osteopathic Research Center established the TCOM Contemporary Issues in Medicine Book Club in 2023 to foster discussion of emerging trends in medicine. The book club is led by Dr. John Licciardone. Since its inception, it has covered a variety of topics with titles shown above.

The book club selections have explored critical issues in modern health care from the impact of digitization and AI on medical practice to the challenges of cultivating empathy and lowering health care costs. Works like "The House of God" reveal the harsh realities of medical training and depersonalization in care, while others, such as "Compassionomics" and "The Price We Pay," address the importance of human connection and the financial burdens of the health care system. Together, these books offer thought-provoking insights into the future of medicine, health care delivery and the need for reform.

The TCOM Contemporary Issues in Medicine Book Club selection for spring 2025 is titled "Blind Spots" by Marty Makary, MD, MPH.

This book will show how experts in any field can develop blind spots, including medicine. Examples will involve peanut allergies, hormone replacement therapy, antibiotics, cholesterol, ovarian cancer, and the opioid crisis. Sessions began Feb. 5.

"People who actively work to be open and objective are impressive."

- Marty Makary, MD

Faculty Spotlight



John C. Licciardone, DO, MS, MBA

**Regents Professor and Richards-Cohen Distinguished Chair in Clinical Research
ORC Executive Director**

Dr. John Licciardone is one of the nation's premier osteopathic medicine researchers. During his 38-year tenure at the University of North Texas Health Science Center, he has completed numerous research studies that examine the unique aspects of osteopathic medical care and how those characteristics impact patient outcomes. He and his research teams have completed some of the largest studies focused on osteopathic medical care, and continue to innovate in the areas of digital research methods and systems.

Subhash Aryal, PhD

**Professor of Biostatistics (Johns Hopkins University)
ORC Director of Biostatistics**

Dr. Aryal is director of the Biostatistics and Methods Core at Johns Hopkins University, School of Nursing and serves as a statistical editor of "Anesthesiology." He has been collaborating regularly with Dr. John Licciardone and ORC researchers since 2012, co-authoring more than 15 articles in high-impact journals such as JAMA Network Open.



Dr. John Licciardone is pictured with former UNTHSC President Dr. Sylvia Trent-Adams

UNTHSC Service Awards

Dr. John Licciardone celebrated more than 35 years of service at the UNTHSC Health Science center.

Staff Spotlight



Cathleen Kearns

Research Assistant Director

Cathleen Kearns celebrated her retirement in December 2023 after 18 years of service at UNTHSC. She is now back in a part-time capacity to assist with PRECISION operations. In particular, she is working with REDCap Cloud to enhance our digital research platform to capture more precise measures of patients' daily use of opioid therapy by computing morphine milligram equivalents.

Samantha Johnson

Research Assistant Director

Samantha Johnson originally joined the ORC in 2017 as a project coordinator and is now a research assistant director. Samantha provides invaluable support to the ORC through her leadership of the research staff and interactions with other entities throughout UNTHSC, including the Office of Sponsored Projects and the North Texas Regional Institutional Review Board.



Heather Lindsey

Project Coordinator

Heather Lindsey joined the ORC in May 2024 as a project coordinator. Heather primarily focuses on daily PRECISION operations, including participant recruitment, screening, enrollment, consenting and follow-up. She also assists with ORC social media and outreach.

Live Longer, Live Stronger!

Goldstein Lecture 2024

Brian Clark, PhD, Ohio University
Executive Director, Ohio Musculoskeletal and Neurological
Institute and Osteopathic Heritage Foundation Harold E.
Clybourne, DO, Endowed Research Chair

The Osteopathic Research Center hosted Brian Clark, PhD in his presentation of the 2024 Goldstein Lecture, titled "Live Longer, Live Stronger," which was well received by an international audience. Dr. Clark is a recognized expert in aging and musculoskeletal health. He has served as principal investigator on research grants totaling more than \$30 million and has published nearly 200 scientific papers. His work has been cited more than 14,000 times, ranking him in the 99th percentile of all scientists based on career-long citation metrics.

His lab has made important discoveries related to changes in the nervous system and the impact those changes have on muscle health, fundamentally changing the way health care providers are diagnosing and treating sarcopenia, especially in older adults. He is also the co-founder and scientific director of the MedTech start-up OsteoDx Inc., which is working to improve the diagnosis of osteoporosis.



Murray Goldstein, DO, MPH

The Osteopathic Research Center established the Goldstein Lecture Award in honor of Murray Goldstein, DO, MPH, to recognize his many accomplishments that advanced the osteopathic profession. The award is supported with funding from the Osteopathic Heritage Foundation in Columbus, Ohio.



To read Dr. Goldstein's full bio you may go to: unthsc.edu/goldstein

Publications

Each year as students come through the Osteopathic Research Center, participating in programs such as the TCOM Honors Research Practicum or the Summer Program in Clinical Research, they are given the opportunity to gain firsthand experience in clinical research from developing a concept through publication. Over the course of their time with the Osteopathic Research Center, they work closely with Dr. John Licciardone to contribute to a written publication based on data from the PRECISION Pain Research Registry.

We would like to acknowledge the students across various TCOM classes who have published with the ORC.

TCOM Class of 2024

Licciardone JC, Ganta S, Goehring L, Wallace K, Pu R. Analysis of the patient-physician relationship, race, and pain control and physical function among adults with chronic low back pain. *JAMA Network Open*. June 2022;5(6):e2216270.



Licciardone JC, McDonald H, Yablon M, Ngo W, Cunanan-Garza KA, Aryal S. Optimizing chronic pain management through patient engagement with quality of life measures: a randomized controlled trial. *Journal of Osteopathic Medicine*. November 2022;122(11):571-580.†



Licciardone JC, Beal J, Fakes N, Herron B, Jacobs C, Vasudevan A. The role of pain hypersensitivity in development of chronic widespread pain: a retrospective cohort study. *Journal of Pain Management*. January 2023;16(1):45-53.



Licciardone JC, Patel S, Kandukuri P, Beeton G, Nyalakonda R, Aryal S. Patient satisfaction with medical care for chronic low back pain: a pain research registry study. *Annals of Family Medicine*. March/April 2023;21(2):125-131.



Licciardone JC, Moore S, Fix K, Blair LG, Ta K. Osteopathic manipulative treatment of patients with chronic low back pain in the United States: a retrospective cohort study. *Journal of Osteopathic Medicine*. May 2023;123(5):259-267.



*TCOM students designated in bold; photos for student doctors Ganta, Pu, Blair, Ta and Bibi not available.

†Received 2023 American Osteopathic Association Clinical Research Award.

‡Received 2024 American Osteopathic Association Clinical Research Award.

Publications - Current TCOM Students

Licciardone JC, Kellerlee J, Joseph M, Mohammad MB, Kim KG, Jain J, Aryal S. The process and outcomes of chronic low back pain treatment provided by osteopathic and allopathic physicians: a retrospective cohort study. *Journal of Osteopathic Medicine*. August 2023;123(8):385-394.‡



Licciardone JC, Ibrahim M, Baker J, Thornton T, Vu S. Pain catastrophizing and risk of progression to widespread pain among patients with chronic low back pain: a retrospective cohort study. *Musculoskeletal Science and Practice*. February 2024;102886.



Licciardone JC, Rama K, Nguyen A, Prado CR, Stanteen C, Aryal S. Effectiveness of long-term opioid therapy for chronic low back pain. *Journal of the American Board of Family Medicine*. March 2024;37(1):59-72.



Licciardone JC, Miller CL, Nazzal AJ, Hernandez CT, Nguyen LH, Aryal S. Racial disparities in opioid use and lumbar spine surgery for chronic pain and in pain and function over 3 years: a retrospective cohort study. *Journal of Pain*. March 2024;25(3):659-671.



Licciardone JC, Tran Y, Ngo K, Toledo D, Peddireddy N, Aryal S. Physician empathy and chronic pain outcomes. *JAMA Network Open*. April 2024;7(4):e246026.



Licciardone JC, Van Alfen B, Digilio MN, Fowers R, Ballout B, Bibi Y, Aryal S. Impact of shared decision-making on opioid prescribing among patients with chronic pain: a retrospective cohort study. *Journal of Pain*. November 2024;25(11):104522.



Licciardone JC, Middleton CN, Aboutaj A, Allouche T, Siddiqui I. Communication and empathy within the patient-physician relationship among patients with and without chronic pain. *J Osteopath Med*. January 2025; 125(2): 79-86.

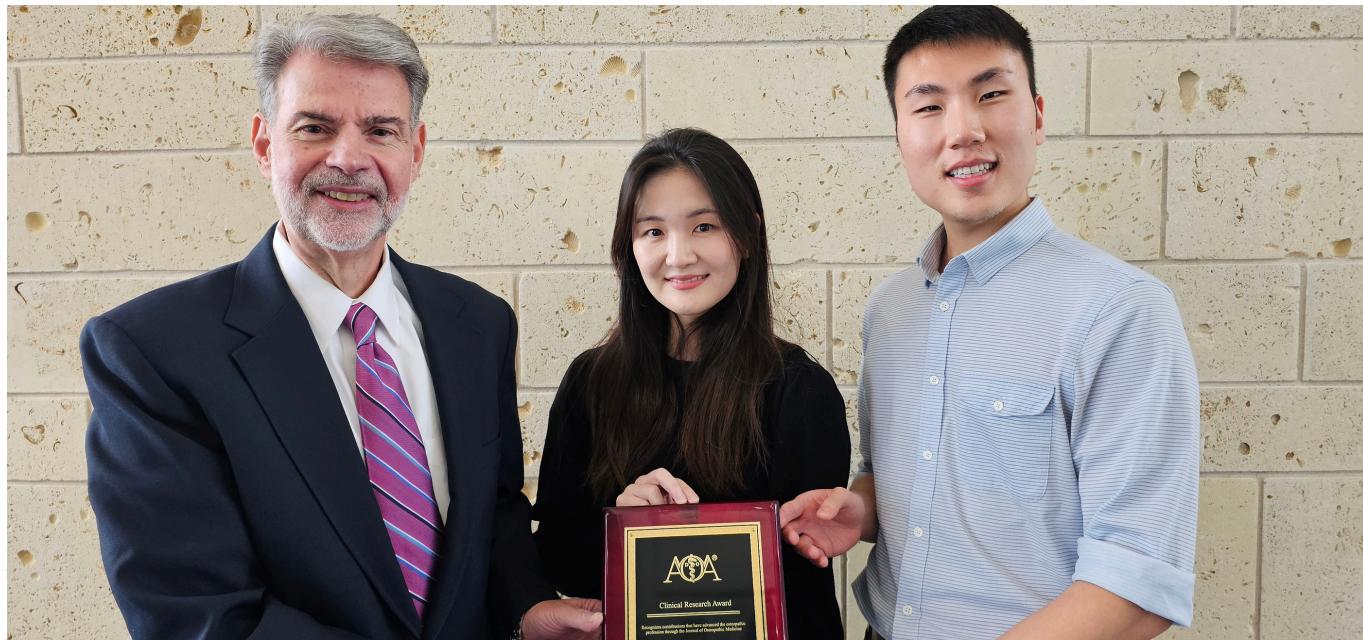


*TCOM students designated in bold; photos for student doctors Ganta, Pu, Blair, Ta and Bibi not available.

†Received 2023 American Osteopathic Association Clinical Research Award.

‡Received 2024 American Osteopathic Association Clinical Research Award.

Recognition Spotlight



Dr. John Licciardone pictured with student doctors Kelly Kim and Joel Kellerlee, who were co-authors on the publication that received the 2024 Clinical Research Award from the American Osteopathic Association.

TOMA: June 2024

Dr. John Licciardone presented, “The Impact of Physician Empathy and Shared Decision-Making on Chronic Pain Management and Outcomes.” at the annual Texas Osteopathic Medical Association Convention.

Attendees learned:

- How physician empathy is assessed and reported by patients
- How physician communication is assessed and reported by patients
- The association between physician empathy and chronic pain outcomes over 12 months
- The association between shared decision-making and prescribing of opioid therapy over 12 months
- Challenges and recommendations pertaining to physician empathy and shared decision-making involving patients with chronic pain

OMED: September 2024

Dr. John Licciardone received the Clinical Research Award at the 2024 Osteopathic Medical Education Conference for the article titled: “The process and outcomes of chronic low back pain treatment provided by osteopathic and allopathic physicians: a retrospective cohort study.”

SaferCare Texas: May 2025

Dr. John Licciardone will present “Physician Empathy and Risk of Suicidal Ideation Among Patients With Chronic Pain: A Target Trial Emulation” at the 2025 SaferCare Patient Safety Conference.

Interested in Contributing to the Osteopathic Research Center?



Your support of the Osteopathic Research Center helps by providing necessary funds to ensure our research and TCOM student training efforts continue to thrive.

If you are interested in donating to the Osteopathic Research Center, you may visit: www.unthsc.edu/orc

Thank you for taking the time to read the Osteopathic Research Center newsletter. We appreciate your support and interest over the years and look forward to sharing more with you in the upcoming years.



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