



California Health
Sciences University

CHSU FACULTY RESEARCH 2025

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A special thanks to:
Edward Merino PhD
Kyle Robinson MLIS

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INTRODUCTION

Welcome to CHSU Faculty Research 2025, an annual compilation of the diverse and impactful scholarly activities conducted by the faculty of California Health Sciences University. This collection reflects institutional commitment to scholarship that advances medical education, improves healthcare delivery, and serves the needs of our Central Valley community. At CHSU, we embrace Boyer's holistic model of scholarship, which supports discovery, integration, application, and teaching as equally valued and interconnected forms of academic contribution. This approach enables meaningful research and scholarly activity that meets and exceeds accreditation standards while fostering a supportive, positive, and welcoming environment for faculty and student scholars.

The work highlighted in this compilation demonstrates both the breadth and depth of faculty engagement in research and scholarly pursuits. Faculty research at CHSU continues to show strong growth and sustained success. Faculty contributions span biomedical and clinical research, educational innovation, community and public health initiatives, and efforts that directly inform evidence-based practice and patient care. Over the past year, all research-related metrics were maintained or improved, and accreditation standards were consistently met. Faculty and preceptors published forty-four manuscripts, representing the highest total to date. Research Day participation increased to 125 presentations and several hundred attendees, highlighting a growing culture of scholarly engagement across the institution. Student involvement also expanded, with the Summer Research Assistant Program supporting fourteen students and a record fifty-three students traveling to present their work at regional and national conferences. The PRHS program experienced its strongest year by expanding to 24 clinical site projects and impactful data-driven results. This year also marked the first use of the 120 research laboratories, with additional research activity anticipated in the coming years.

This compilation also reflects the infrastructure and programs that support faculty and student scholarship at CHSU. These include faculty research and scholarly activity support, the Research and Scholar Fund, medical student research support, the Student Summer Research Assistant Program, the PRHS Initiative, and Research Day funding. Together, these programs demonstrate CHSU's commitment to sustaining momentum, developing faculty leadership, and launching new initiatives that strengthen our research enterprise.

We invite you to explore this collection and celebrate the accomplishments of CHSU faculty. Their work exemplifies a shared commitment to purpose, curiosity, and lifelong learning, and underscores the vital role of scholarship in advancing healthcare, education, and community well being.

2025 CHSU Publications & Projects

Luis G. Bautista, MD

PROJECTS

- Project Title:** Correlation of patient hemoglobin A1c and C-peptide as a function of time and treatment
Type of Research: Retrospective observational study
Project Summary: This study retrospectively analyzes long-term lab data from Bautista Medical Group type 2 diabetes patients to evaluate whether C-peptide correlates with HbA1c over time and could serve as a useful biomarker for disease progression. Preliminary results show higher HbA1c in males and a significant association between HbA1c and male sex, while an observed negative HbA1c–C-peptide correlation could not be confirmed statistically due to very limited paired C-peptide data.

Karen Bontekoe, MLS

PUBLICATIONS

- Robinson K, **Bontekoe K**, Muellenbach J. Integrating PICO principles into generative artificial intelligence prompt engineering to enhance information retrieval for medical librarians. J Med Libr Assoc. 2025;113(2):184-188. doi:10.5195/jmla.2025.2022

PROJECTS

- Project Title:** scoping review of current techniques for assessing graft site morbidity in QT and BPTP ACL autograft reconstruction
Type of Research: Scoping review
Project Summary: This scoping review examines how graft-site morbidity after ACL reconstruction—such as anterior knee pain, paresthesia, and strength deficits—is assessed for common autografts like BPTB and quadriceps tendon. Across 43 included studies, it finds wide variation in measurement methods and reporting, arguing for standardized assessment tools to enable better comparisons and more patient-centered graft selection.

Steven Carstens, DO, MS, FACEP, FAWM, ABEM

PROJECTS

- Project Title:** Development of a Quality Improvement Workflow to Salvage and Repurpose Unused Medical Supplies
Type of Research: Quality Improvement (QI) project with descriptive, exploratory methods
Project Summary: This quality improvement project aimed to develop a structured workflow for identifying, collecting, and redistributing unused but viable medical supplies from hospitals to resource-limited settings through established medical donation organizations. Findings highlight institutional and regulatory barriers to direct redistribution, while demonstrating that partnerships with existing philanthropic agencies represent the most effective and scalable approach for reducing medical waste and supporting global health efforts.

Duc Chung, MD, MBA, FAAHPM

PUBLICATIONS

1. Holm D, Tasarz J, Ponamala M, **Chung D**. Blast-Related Mild Traumatic Brain Injury: Case Report Highlighting the Long-Term Neurocognitive Sequelae Following Blast Exposure in Veterans. *Cureus*. 2025;17(9):e92404. Published 2025 Sep 15. doi:10.7759/cureus.92404
2. Faulks AJ, Mallick E, Chung D, Cha T. Transverse Myelitis in a Healthy Patient With Benign Paroxysmal Positional Vertigo: A Case Report Highlighting Inpatient Rehabilitation and Functional Gains. *Cureus*. 2024;16(12):e76490. Published 2024 Dec 27. doi:10.7759/cureus.76490

PROJECTS

1. **Project Title:** Strong-Arming the Future of Peripheral Nerve Stimulators
Type of Research: Narrative literature review
Project Summary: This project reviews evidence on percutaneous peripheral nerve stimulation for chronic upper-extremity pain and compares its costs (via Medicare CPT fees) to more common interventional options like cervical radiofrequency ablation and medial branch blocks. The reviewed studies suggest peripheral nerve stimulation can provide longer-lasting pain relief and functional improvement—often persisting well beyond lead removal—making it potentially more cost-effective over time despite higher upfront costs.
2. **Project Title:** Metastatic Spinal Cord Compression Secondary to Prostatic Adenocarcinoma: A Case Report on Functional Outcomes in Inpatient Rehabilitation
Type of Research: A clinical case report
Project Summary: This case report describes a 68-year-old man with prostate cancer who developed thoracic spine metastases causing severe back pain and cord compression, underwent surgical decompression/fusion, and then completed intensive inpatient rehabilitation. He showed meaningful improvement in strength, gait, and activities of daily living, illustrating the value of post-surgical rehab in restoring function and quality of life.
3. **Project Title:** Evaluation of Hospice Care Admissions at Compassionate Care Hospice Central California
Type of Research: A Quality Improvement (QI) needs assessment/program development project
Project Summary: This project surveyed Compassionate Care hospice staff (42/60 responses) to identify what patients and families commonly misunderstand or forget during the hospice admissions/onboarding process, then used findings to develop a digital FAQ guide to address those gaps. Results suggest recurring needs around explaining hospice philosophy, setting expectations for prognosis/outcomes, and reducing information overload, with staff endorsing digital and multilingual resources and FAQ videos as improvements.

Carleen De Leon MD

PROJECTS

1. **Project Title:** The Impact of Nutrition Education on Post-Cancer Treatment: A Quality Improvement Initiative
Type of Research: Quality Improvement (QI)
Project Summary: This study evaluates the impact of a targeted nutritional education intervention on cancer patients' dietary knowledge and its potential to enhance their overall well-being.
2. **Project Title:** Insights and Follow-up to a Skin Cancer Screening Event for Central Valley Community Members
Type of Research: A community health program implementation / descriptive report
Project Summary: This project describes planning and implementing a free, dermatologist-supervised skin cancer screening event in Clovis, CA, designed to reduce barriers to dermatologic care and promote earlier melanoma detection in underserved minority communities in Fresno County. Using APAMSA toolkit guidance, multilingual outreach/materials, and grant funding, the event screened 17 participants and suggests future screenings could expand reach through deeper community partnerships.

Krista Edmiston, PhD

PROJECTS

- Project Title:** Assessing the Benefits and Drawbacks of Food Pharmacy Utilization in the Central Valley
Type of Research: A prospective longitudinal survey evaluation
Project Summary: This project will evaluate how patients at Golden Valley Health Center's Food Pharmacy in Merced use and perceive the program by administering a short survey (including Likert-scale and open-ended items) and linking responses to de-identified demographics. Over time, it aims to track changes in food insecurity and examine relationships between sociodemographic factors, program attendance/usage, and perceived impact to inform improvements and potential expansion.

Sarmad Ghazi, MBChB

PROJECTS

- Project Title:** Analyzing the Effect of Training CHSU-COM Students on an Online Resource Directory
Type of Research: A prospective educational intervention study
Project Summary: This study tests whether training CHSU-COM third-year osteopathic medical students to use findhelp.org improves their knowledge and confidence in connecting unhoused or housing-insecure patients with local community resources. Students complete anonymous pre- and post-training surveys, with changes analyzed using matched-pairs t-tests (and ANOVA for subgroup differences).
- Project Title:** A Retrospective Analysis of Unhoused Patient Population at UHC Tuolumne Clinic (2021-2024): Demographic and Healthcare Access Trends in Central Valley, California
Type of Research: A retrospective observational study
Project Summary: This study retrospectively analyzed PRAPARE social-needs survey data from UHC Tuolumne (Jan 2021–May 2024) to examine demographic factors associated with homelessness and related access barriers. Among 1,157 respondents, 83 reported being unhoused, and analyses found a statistically significant association involving Hispanic/Latino identity and housing/transportation barriers, with transportation emerging as a major obstacle—especially for unhoused Hispanic patients.

Sara Goldgraben, MD, MPH, MBA

PROJECTS

- Project Title:** Improving Colorectal Cancer Screening in the Central Valley: Overcoming Barriers Through Patient Education and Awareness
Type of Research: A quality improvement project
Project Summary: This project targets colorectal cancer screening disparities in California's Central Valley by identifying key barriers among UHC Visalia patients and testing whether a bilingual multimedia education intervention increases screening participation (measured by FOBT kit distribution/screening rates) over a year. Using a SMART Aim framework, it employs a longitudinal quasi-experimental approach comparing screening metrics before and after the clinic-based educational intervention, with plans to scale across UHC clinics.
- Project Title:** Implementing an Elective Deskercise Program to Improve GAD-7 Score
Type of Research: A prospective program evaluation
Project Summary: This project plans to implement an employee wellness program at Camarena Health (an FQHC) and evaluate whether it reduces staff anxiety over time, using monthly GAD-7 surveys across a four-month period. It builds on prior evidence linking exercise/wellness programs to reduced anxiety and improved employee well-being.

- 3. Project Title:** Addressing Food Insecurity Among Medical Students: Evaluating the Impact of a Student-Run Food Pantry

Type of Research: A program evaluation / quality improvement study

Project Summary: This project evaluated CHSU-COM's student-run food pantry using a post-intervention survey of students aware of/using the pantry, finding that respondents still reported some food hardship but overwhelmingly viewed the pantry as helpful and important (71% said it helped during insecurity; 100% would recommend it). The results suggest early perceived success and support continuing and potentially expanding the pantry.

John Graneto, DO, MEd, FACOP, FACOEP-dist, FNAOME

PUBLICATIONS

1. Kadavakollu S, Dang T, Bains J, **Graneto J**, et al. A comprehensive review of clinical experiences and extracurricular activities for US premedical students applying to osteopathic medical schools. *J Osteopath Med*. 2025;125(4):185-202. Published 2025 Jan 23. doi:10.1515/jom-2022-0254

Jared Ham-Ying, DO, C-NMM/OMM

PUBLICATIONS

1. Mazdeyasnan L, Shabbir Z, **Ham-Ying J**. Evaluating Community Awareness of Osteopathic Manipulative Medicine and New Educational Programs in Fresno County, United States: A Cross-Sectional Survey. *Cureus*. 2025;17(11):e96348. Published 2025 Nov 7. doi:10.7759/cureus.96348
2. Kadavakollu S, Dang T, Bains J, **Ham-Ying J**, et al. A comprehensive review of clinical experiences and extracurricular activities for US premedical students applying to osteopathic medical schools. *J Osteopath Med*. 2025;125(4):185-202. Published 2025 Jan 23. doi:10.1515/jom-2022-0254

PROJECTS

1. **Project Title:** Osteopathic Principles and Practices Table Assistant Evaluation-Community Impact
Type of Research: Educational Research
Project Summary: This project evaluates the impact of Osteopathic Principles and Practices (OPP) Table Assistants from the Class of 2025 on the CHSU-COM community. The study aims to assess the perceived benefits of the Table Assistant program for both the assistants and the students they support. The research will involve surveys and direct observations to measure knowledge, attitudes, and engagement in osteopathic education and practice.
2. **Project Title:** Evaluating Community Awareness of Osteopathic Manipulative Medicine and New Educational Programs in Fresno County Utilizing a Cross-Sectional Survey
Type of Research: Cross-sectional descriptive survey study
Project Summary: This cross-sectional survey assessed community awareness, perceptions, and openness toward osteopathic medicine and the presence of a local osteopathic medical school among adults in Fresno County, California. Findings revealed low awareness of osteopathic medicine and CHSU-COM, despite strong support for holistic care principles and high openness to receiving osteopathic treatment, highlighting a need for targeted community education and outreach.

Francisco Ibarra, PharmD, BCCCP

PUBLICATIONS

1. Mazdeyasnan L, Shabbir Z, **Ibarra F Jr**. What's Hot, What's Not: Review of Pharmacological Options for Managing Burning Mouth Syndrome. *Ann Pharmacother*. Published online December 7, 2025. doi:10.1177/10600280251386558

Hourany G, Samaan JS, Kamboj AK, **Ibarra F Jr**. Isotretinoin-Induced Pill Esophagitis. *ACG Case Rep J*. 2025;12(2):e01596. Published 2025 Feb 7. doi:10.14309/crj.0000000000001596
Ibarra F Jr, Hung F, Balakrishnan L, DeLaere C, Falkenstein B. Optimal Glucose Reduction in Diabetic Emergencies (OG-RIDE). *Ann Pharmacother*. Published online October 23, 2025. doi:10.1177/10600280251378525
Ibarra F Jr, Oldziej K, DeLaere C, Falkenstein B. Safety of Front-Loaded Intravenous Push Phenobarbital in the Management of Alcohol Withdrawal (PHENOMENAL PUSH). *Acad Emerg Med*. Published online October 24, 2025. doi:10.1111/acem.70178

PROJECTS

1. **Project Title:** CHICA-D10: Current hyperkalemia interventions co-administered with a dextrose 10% solution significantly lower hypoglycemic rates
Type of Research: A retrospective comparative cohort study / quality-improvement evaluation
Project Summary: This retrospective study compared an updated ED hyperkalemia order set (lower insulin dose plus added prolonged D10 infusion for patients with pre-insulin glucose ≤ 250 mg/dL and poor renal clearance) to the prior protocol to see if it reduced post-insulin hypoglycemia. Among 100 patients per group, hypoglycemia fell from 20% with the old order set to 6% with the new set, without reducing potassium-lowering effectiveness.
2. **Project Title:** Review of Subcutaneous Insulin Regimens in the Management of Diabetic Ketoacidosis in Adults and Pediatrics
Type of Research: A narrative literature review
Project Summary: This review summarizes 16 studies (2000–May 2024) evaluating subcutaneous insulin strategies for DKA in adults and pediatrics, including SQ rapid/short-acting insulin versus IV insulin infusions and the addition of an early SQ basal insulin dose to IV infusion protocols. Overall, the evidence suggests SQ regimens can be similarly safe and effective to IV infusions and may reduce ICU admissions, length of stay, costs, and IV infusion duration.
3. **Project Title:** COMPARISON OF TWO DIFFERENT FIXED-DOSE FACTOR EIGHT INHIBITOR BYPASSING ACTIVITY (FEIBA) REGIMENS IN THE MANAGEMENT OF WARFARIN-ASSOCIATED COAGULOPATHIES
Type of Research: Retrospective comparative cohort study
Project Summary: This ongoing retrospective study compares two fixed-dose FEIBA (PCC) dosing protocols for warfarin-associated coagulopathy to see which more reliably achieves rapid INR correction. Preliminary results suggest the newer tiered dosing scheme led to a higher proportion of patients reaching a post-FEIBA INR ≤ 1.5 than the older two-tier regimen, though the difference was not statistically significant in the small sample.
4. **Project Title:** MANAGING SEVERE HYPONATREMIA WITH 8.4% SODIUM BICARBONATE: A FEASIBILITY STUDY
Type of Research: Retrospective observational feasibility study
Project Summary: This ongoing retrospective study evaluates whether a single 50 mL dose of 8.4% hypertonic sodium bicarbonate (HTB)—a prefilled syringe with equivalent sodium content to 100 mL of 3% hypertonic saline—can feasibly achieve the recommended initial 4–6 mmol/L sodium rise in severe hyponatremia ($\text{Na} \leq 120$). In 41 patients, HTB increased serum sodium by a median of ~ 4 mmol/L with minimal median changes in other electrolytes, supporting feasibility and motivating future head-to-head comparisons with hypertonic saline.

- 5. Project Title:** 8.4% Sodium Bicarbonate vs. 3% Sodium Chloride in the Management of Severe Hyponatremia
Type of Research: Retrospective comparative cohort study
Project Summary: This ongoing retrospective, two-site study compares 50 mL of 8.4% sodium bicarbonate (prefilled syringe) versus 100 mL of 3% hypertonic saline for initial correction of severe hyponatremia ($\text{Na} \leq 120$) and associated electrolyte changes. Preliminary results (20 patients/group) suggest sodium bicarbonate produces a similar (or larger) early sodium rise while showing fewer disturbances in bicarbonate and chloride, supporting it as a potential practical alternative to 3% NaCl.
- 6. Project Title:** Comparison of effectiveness of three potassium exchangers in the acute management of hyperkalemia: sodium zirconium cyclosilicate, sodium polystyrene sulfonate, and patiromer
Type of Research: Narrative review
Project Summary: This paper describes why potassium binders/exchangers—SPS, sodium zirconium cyclosilicate, and patiromer—may still be useful in acute hyperkalemia as adjuncts to rapid-acting therapies, potentially adding potassium-lowering effect and reducing rebound hyperkalemia after intracellular-shifting agents wear off. It also highlights that evidence comparing these agents in acute care is limited, leaving uncertainty about which is best to use.
- 7. Project Title:** Pharmacological Options For Managing Burning Mouth Syndrome
Type of Research: A structured literature review
Project Summary: This review synthesizes evidence (2000–2024) on pharmacologic treatments for burning mouth syndrome, screening PubMed results down to 46 studies covering 22 medications. It finds the most consistent support for alpha-lipoic acid (often 600 mg/day), clonazepam (topical and systemic, with fewer adverse effects topically), and topical capsaicin (limited by tolerability), while other agents show mixed benefit.
- 8. Project Title:** Review of calcium administration in cardiac arrest: To give or not to give?
Type of Research: A narrative literature review
Project Summary: This review evaluates evidence on giving calcium during adult and pediatric cardiac arrest and finds that, across RCTs and observational studies (including the COCA trial and GWTG-Resuscitation data), calcium does not improve ROSC, survival, or neurologic outcomes and may be associated with harm in some analyses. It concludes calcium should not be used routinely during cardiac arrest except when clearly indicated (e.g., severe hyperkalemia or hypocalcemia).

Allen Keshishian, PharmD, MS, RPh

PROJECTS

- 1. Project Title:** Investigating the Role of Tumor Microenvironment in Drug Resistance: Implications for Targeted Therapy in Breast Cancer
Type of Research: A systematic literature review
Project Summary: This PRISMA-guided systematic review examines how the breast tumor microenvironment drives treatment resistance, highlighting enhanced DNA repair and increased drug efflux pump activity as major mechanisms, with hypoxia and immune suppression further reinforcing resistance—particularly in triple-negative and hormone receptor-positive subtypes. It concludes that targeting TME features (e.g., efflux pumps, hypoxia, immune modulation) could improve treatment response and support more personalized therapies.

Reena Lamichhane Khadka, MS, PhD

PROJECTS

- Project Title:** Autism Spectrum Disorder: Through the Lens of Dysbiosis
Type of Research: Narrative literature review
Project Summary: This narrative review explores the relationship between gut microbiota dysbiosis and autism spectrum disorder (ASD), focusing on alterations in microbial composition and their influence on the gut–brain–microbiota axis. Current evidence suggests that dysbiosis may contribute to immune dysregulation, neuroinflammation, and altered neurotransmitter signaling in ASD, highlighting the need for further research into causative mechanisms and microbiome-based therapeutic strategies.
- Project Title:** Dysbiosis and Dementia: Microbial Signatures of Neurodegeneration
Type of Research: Narrative literature review
Project Summary: This narrative review examines emerging evidence linking gut microbiota composition and dysbiosis to neuroinflammation and cognitive decline across major forms of dementia, including Alzheimer’s disease and related neurodegenerative disorders. Current literature suggests that microbiome-derived metabolites and inflammatory signaling may disrupt the gut–brain axis, contributing to disease progression and highlighting dietary and microbiome-targeted interventions as potential preventive or therapeutic strategies.
- Project Title:** Exploring Bacterial Influence in Psoriasis and Atherosclerosis: Shared Inflammatory Pathways and Therapeutic Insights
Type of Research: A narrative literature review
Project Summary: This review synthesizes evidence that psoriasis and atherosclerosis share inflammatory immune pathways (notably Th1/Th17 and cytokines like TNF- α and IL-17A), helping explain psoriasis’ association with increased cardiovascular risk. It also discusses how certain bacteria implicated in plaque formation (e.g., *Chlamydia pneumoniae*, *H. pylori*, *P. gingivalis*) may intersect with these pathways and considers whether psoriasis biologics might reduce atherosclerotic risk by modulating related inflammation.

Elizabeth Grace Martinez, DO

PROJECTS

- Project Title:** The Impact of Commercial Third-Party Learning Resources on Pre-Clinical Medical Education: A Systematic Review on Faculty and Student Perspectives
Type of Research: Systematic review with thematic synthesis
Project Summary: This systematic review examined faculty and student perspectives on the use of commercial third-party learning resources (CLRs) in preclinical medical education and their impact on learning outcomes, teaching practices, and curriculum design. Analysis of 34 studies revealed strong evidence supporting student utilization and effectiveness of CLRs, alongside a notable gap in faculty-focused research, underscoring the need for greater institutional guidance and adaptation to evolving self-directed learning models.
- Project Title:** Navigating the Rise of Commercial Third-Party Learning Resources: Perspectives of Pre-Clinical Medical Educators
Type of Research: A qualitative Delphi study
Project Summary: This study will explore CHSU-COM faculty “experts” perceptions of commercial learning resources (third-party study tools), focusing on how educators verify resource quality, guide student selection, and adapt their teaching/support roles as these tools proliferate. It will use iterative Delphi-style surveys followed by interviews, with thematic analysis to identify key themes about challenges, responsibilities, and integration with the curriculum.

Gisou Mohaddes, PhD, MS

PUBLICATIONS

1. Fallahi S, Soltani Zangbar H, Ghiasi F, **Mohaddes G**, Farajdokht F. Exosome therapy protects the hippocampus in mice exposed to chronic methamphetamine: Insights into angiogenic and inflammatory signaling pathways. *Neuropharmacology*. 2026;285:110790. doi:10.1016/j.neuropharm.2025.110790
2. Athari SZ, Farajdokht F, Karimipour M, Alipour MR, **Mohaddes G**. Intranasal AdipoRon improves motor function in a rat model of Parkinson's disease by promoting neurogenesis in the nigrostriatal pathway. *Neuropharmacology*. 2025;281:110687. doi:10.1016/j.neuropharm.2025.110687
3. Malaei B, Farajdokht F, **Mohaddes G**, Mansouri B, Hamidi N, Alipour MR. AdipoRon Mitigates Anxiety and Depression Symptoms in Chronic Sleep-Restricted Mice via Modulation of Neuroinflammatory Responses. *J Cell Mol Med*. 2025;29(15):e70770. doi:10.1111/jcmm.70770
4. Azarfarin M, Shahla MM, **Mohaddes G**, Dadkhah M. Non-pharmacological therapeutic paradigms in stress-induced depression: from novel therapeutic perspective with focus on cell-based strategies. *Acta Neuropsychiatr*. 2025;37:e10. Published 2025 Feb 20. doi:10.1017/neu.2024.39
5. Alimohammadi S, **Mohaddes G**, Keyhanmanesh R, Athari SZ, Azizifar N, Farajdokht F. Intranasal AdipoRon mitigates motor and cognitive deficits in hemiparkinsonian rats through neuroprotective mechanisms against oxidative stress and synaptic dysfunction. *Neuropharmacology*. 2025;262:110180. doi:10.1016/j.neuropharm.2024.110180

PROJECTS

1. **Project Title:** Osteopathic Principles and Practices Table Assistant Evaluation-Community Impact
Type of Research: Educational Research
Project Summary: This project evaluates the impact of Osteopathic Principles and Practices (OPP) Table Assistants from the Class of 2025 on the CHSU-COM community. The study aims to assess the perceived benefits of the Table Assistant program for both the assistants and the students they support. The research will involve surveys and direct observations to measure knowledge, attitudes, and engagement in osteopathic education and practice.
2. **Project Title:** The Effects of Electroconvulsive Therapy and Transcranial Magnetic Stimulation on Neuroplasticity in Patients with Major Depressive Disorder
Type of Research: Narrative literature review
Project Summary: This narrative review examines the effects of electroconvulsive therapy (ECT) and transcranial magnetic stimulation (TMS), including repetitive TMS, on neuroplasticity in patients with major depressive disorder. Existing studies suggest that both modalities are associated with increased neuroplastic and neurogenic markers—particularly in the prefrontal cortex, limbic system, and hippocampus—supporting their role as effective non-pharmacological treatment options for MDD.
3. **Project Title:** Autism Spectrum Disorder: Through the Lens of Dysbiosis
Type of Research: Narrative literature review
Project Summary: This narrative review explores the relationship between gut microbiota dysbiosis and autism spectrum disorder (ASD), focusing on alterations in microbial composition and their influence on the gut-brain-microbiota axis. Current evidence suggests that dysbiosis may contribute to immune dysregulation, neuroinflammation, and altered neurotransmitter signaling in ASD, highlighting the need for further research into causative mechanisms and microbiome-based therapeutic strategies.

- 4. Project Title:** Dysbiosis and Dementia: Microbial Signatures of Neurodegeneration
Type of Research: Narrative literature review
Project Summary: This narrative review examines emerging evidence linking gut microbiota composition and dysbiosis to neuroinflammation and cognitive decline across major forms of dementia, including Alzheimer’s disease and related neurodegenerative disorders. Current literature suggests that microbiome-derived metabolites and inflammatory signaling may disrupt the gut–brain axis, contributing to disease progression and highlighting dietary and microbiome-targeted interventions as potential preventive or therapeutic strategies.
- 5. Project Title:** More Than Mood: TCAs in Neuroplasticity and Synaptic Repair
Type of Research: Narrative literature review
Project Summary: This paper reviews preclinical evidence (2000–2025) comparing how the tricyclic antidepressants imipramine and desipramine influence neuroplasticity-related processes such as neurogenesis, synaptic plasticity (LTP/LTD), neuroinflammation, and dendritic growth. It concludes that both drugs enhance brain plasticity via overlapping but distinct mechanisms—imipramine through dual serotonin/norepinephrine effects and desipramine through more norepinephrine-focused neuroprotective pathways.
- 6. Project Title:** Maximizing Neuroplasticity after ischemic stroke by Rehabilitation: Role of Mediators
Type of Research: Narrative literature review
Project Summary: This paper reviews recent literature (June–December 2024) on how rehabilitation after ischemic stroke promotes neuroplasticity—reorganizing neural circuits through task-specific physical/occupational therapy and cognitive training—and discusses molecular mediators (e.g., acetylcholine, dopamine, serotonin, glutamate) that support synaptic remodeling and recovery. It concludes that optimizing timing and intensity of rehab to the individual may improve functional outcomes.
- 7. Project Title:** Micromanagers of the Mind: Micro-RNAs Role in Neuroplasticity
Type of Research: Narrative literature review
Project Summary: This project describes how microRNAs, which regulate post-transcriptional gene expression in neural tissue, shape neuroplasticity by influencing neurogenesis, synaptic remodeling, dendritic growth, and LTP/LTD mechanisms. It focuses on identifying and explaining the roles of specific miRNAs in these adaptive brain changes.
- 8. Project Title:** Tiny RNAs, Major Impact: Micro-RNAs as Mediators of Affective Disorders
Type of Research: Narrative literature review
Project Summary: This paper reviews literature (July–Dec 2024) on how microRNAs regulate neuroplasticity-related processes (neurogenesis, synaptic plasticity, LTP/LTD, dendritic growth) and how specific miRNAs have been associated with affective disorders like depression. It argues that better understanding miRNA-driven brain plasticity and stress responses could inform future diagnostics and more targeted, personalized mental health treatments.

Koteswara Rao Nalamolu, MPharm, PhD

PROJECTS

- Project Title:** The Gut-Brain Axis Role in Neurological Disorders
Type of Research: A narrative review / background overview
Project Summary: This paper describes how gut microbiota dysbiosis can influence neurological and psychiatric disorders through the gut-brain axis via immune, metabolic, and neural pathways, and highlights emerging uses of microbiome profiling as potential biomarkers. It also discusses therapeutic strategies (diet, pre/probiotics, microbiome-targeted treatments) aimed at reducing neuroinflammation and improving outcomes.
- Project Title:** Exploring the Gut Microbiome in Type 1 Diabetes: Integrating Technology for Improved Diabetes Management
Type of Research: A narrative review
Project Summary: This review discusses evidence linking type 1 diabetes to gut microbiome dysbiosis and increased intestinal permeability (“leaky gut”), and surveys potential microbiome-targeted strategies—dietary approaches, probiotics, and fecal microbiota transplant—to slow disease progression by restoring healthier gut flora. It also outlines future directions using microbiome databases, nutrition tools, and AI to support personalized interventions alongside glycemic management.

Sree N. Pattipati, MPharm, PhD

PROJECTS

- Project Title:** Evaluating the Association Between Caregiver IBS and Pediatric Constipation in the Central Valley
Type of Research: Educational Research
Project Summary: This project evaluates the impact of Osteopathic Principles and Practices (OPP) Table Assistants from the Class of 2025 on the CHSU-COM community. The study aims to assess the perceived benefits of the Table Assistant program for both the assistants and the students they support. The research will involve surveys and direct observations to measure knowledge, attitudes, and engagement in osteopathic education and practice.
- Project Title:** Next-Gen Diabetes Care: Revolutionizing Personalized Insulin Delivery with Cutting-Edge Technology
Type of Research: Narrative literature review
Project Summary: This review summarizes recent advances in diabetes management technologies—modern insulin delivery (pens, pumps, CSII), continuous glucose monitoring integration, closed-loop/artificial pancreas systems, and AI-driven tools for prediction and personalization. It concludes these innovations can improve glycemic control and outcomes, but cost, access, and adoption barriers still limit equitable use.

Sudhakar Pemminati, PhD, MSc, MBA, BPharm, DPharm, PDCR, FAGE

PUBLICATIONS

1. Li A, Cha A, Huang M, Dhami S, **Pemminati S.** A Review of the Recent Advances in the Pharmacological Management of Parkinson's Disease. *Cureus*. 2025;17(9):e93123. Published 2025 Sep 24. doi:10.7759/cureus.93123
2. Hughes B, Mirza S, Ponamala M, **Pemminati S.**, et al. Exploring the Therapeutic Potential of Ketamine and Psilocybin in Comparison to Current Treatment Regimens for Treatment-Resistant Depression, Mood Disorders, and Post-traumatic Stress Disorder in the Pediatric Population: A Narrative Review. *Cureus*. 2025;17(8):e90425. Published 2025 Aug 18. doi:10.7759/cureus.90425
3. Huang JXF, Yousaf A, Moon J, Ahmed R, Uppal K, **Pemminati S.** Recent Advances in the Management of Dyslipidemia: A Systematic Review. *Cureus*. 2025;17(3):e81034. Published 2025 Mar 23. doi:10.7759/cureus.81034
4. Fadel LP, Thao G, **Pemminati S.**, et al. A System-Based Review on Effects of Glucagon-Like Peptide-1 Receptor Agonists: Benefits vs Risks. *Cureus*. 2025;17(2):e78575. Published 2025 Feb 5. doi:10.7759/cureus.78575
5. Sharma A, Nair BS, **Pemminati S.** 7-Hydroxymitragynine and Nicotine Pouch Withdrawal Syndrome: A Case Report. *Cureus*. 2025;17(12):e98386. Published 2025 Dec 3. doi:10.7759/cureus.98386

PROJECTS

1. **Project Title:** Effects of Glucagon-Like Peptide-1 Receptor Agonists on the Eye: A Systematic Review
Type of Research: Clinical & basic science
Project Summary: Involving 2 OMS-III, 3 OMS-II students, this study aims to review recent advances in the effects of glucagon-like peptide 1 receptor agonists on the eye by using The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed to ensure a robust and transparent search process, aiming to minimize bias and maximize the retrieval of pertinent studies for this systematic review.
2. **Project Title:** Psychedelics in Psychiatry: Psilocybin, LSD, MDMA for Depression, PTSD, and Addiction
Type of research: Clinical and basic science
Project Summary: Involving 1 OMS-IV & 1 MSBS student, this study aims to explore the historical context, neuropharmacology, clinical efficacy, therapeutic models, safety profiles, and prospects of psychedelic-assisted psychotherapy. While promising, the translation of psychedelics into mainstream psychiatric practice will require continued investigation, careful regulation, and the development of standardized therapeutic protocols.
3. **Project Title:** Recent Advances in the Management of Type 2 Diabetes Mellitus: A Systematic Review.
Type of research: Clinical and basic science
Project Summary: This study, involving 8 OMS-II students, aims to systematically review recent pharmacological advancements in T2DM management by examining the latest literature. Improving the understanding and treatment of this metabolic disorder will help inform recent advances and clinical practices and provide better results for T2DM patients.

- 4. Project Title:** Glucagon-Like Peptide-1 Receptor Agonists (GLP-1RAs) Possible Alternative for Weight Loss to Bariatric Surgery: A Narrative Review
Type of research: Clinical and basic science
Project Summary: Description of the project: Involving 6 OMS-IV students, this study aims to review the potential integration of both surgical and pharmacological options to facilitate a multifaceted approach to combat obesity, achieve, and maintain ideal body weight for the long term.
- 5. Project Title:** Identifying the Barriers for Childhood and Adolescent Immunizations Through the Development of a Parent Survey: A quality improvement study
Type of research: Clinical and basic science
Project Summary: Description of the project: Involving 9 OMS-I students, this study aims to review the potential integration of both surgical and pharmacological options to facilitate a multifaceted approach to combat obesity, achieve, and maintain ideal body weight for the long term.
- 6. Project Title:** Management Challenges in a Patient with Sick Sinus Syndrome (SSS) and Psychiatric Comorbidities: A Case Report
Type of research: Clinical science
Project Summary: Description of the project: Involving 1 OMS-III student, this study aims to highlight the importance of recognizing drug–drug interactions in patients with SSS, favoring safer alternatives such as sertraline or mirtazapine, and ensuring close collaboration between cardiology and psychiatry to optimize safety and efficacy.
- 7. Project Title:** Withdrawal from 7-Hydroxymitragynine and Nicotine Pouches: A Case Report and Review of Emerging Psychoactive Substances
Type of research: Clinical science
Project Summary: Description of the project: Involving 1 OMS-IV student, this study aims to describe the clinical course of withdrawal from 7-hydroxymitragynine, a potent kratom alkaloid, and nicotine pouches in a patient with a history of polysubstance use, including prior alcohol and kratom dependence
- 8. Project Title:** Recent trends in carbon-based nanomaterials for electrochemical detection of environmental contaminants.
Type of research: Basic science
Project Summary: Description of the project: This study highlighted the future perspectives and challenges of electrochemical sensors for contaminant detection. By providing substantial insights into the future development of and application of the potential sensing strategies.
- 9. Project Title:** A Review of Recent Advances in the Pharmacological Management of Parkinson’s Disease(PD)
Type of research: Basic science
Project Summary: Description of the project: Involving 4 OMS-III students, this study aims to review the existing and emerging pharmacological therapeutic options for the management of PD while highlighting the need for innovative strategies to improve outcomes for individuals living with PD.
- 10. Project Title:** Is There a Definitive Therapeutic Role of Vitamin E in The Prevention and/or Treatment of Human Male Infertility?
Type of research: Basic science
Project Summary: Description of the project: Involving faculty members, this study aims to review the existing literature and analyze in detail the published research articles that discussed the possible therapeutic role of vitamin E in the prevention and/or treatment of free radical-mediated human male infertility.

- 11. Project Title:** Recent Advances in the Management of Dyslipidemia: A Systematic Review
Type of research: Systematic Review
Project Summary: This systematic review synthesized recent evidence on novel lipid-lowering therapies developed to address limitations of statin monotherapy in the management of dyslipidemia. Findings highlight emerging agents—including inclisiran, obicetrapib, evinacumab, and plozasiran—that demonstrate substantial reductions in LDL-C or triglycerides with favorable safety profiles, supporting their potential role in combination or alternative treatment strategies.
- 12. Project Title:** Exploring the Next Generation of Parkinson's Management
Type of research: Literature Review
Project Summary: This review surveys emerging disease-modifying therapies for Parkinson's disease (2000–2025), focusing on approaches beyond symptomatic dopamine replacement—such as neuroprotection, mitochondrial repair, α -synuclein clearance/lysosomal enhancement, gene-targeted agents (e.g., LRRK2 inhibitors), advanced dopaminergic delivery systems, and regenerative cell-based options. It concludes that multimodal, mechanism-targeted strategies show promise but face practical hurdles like blood–brain barrier penetration and dosing optimization.
- 13. Project Title:** Navigating the Gut: A Systematic Review of Gastrointestinal Side Effects of GLP-1 Receptor Agonists
Type of research: Systematic literature review
Project Summary: This PRISMA-guided systematic review evaluates gastrointestinal safety risks of GLP-1 receptor agonists (especially semaglutide, liraglutide, and exenatide), finding that nausea, vomiting, diarrhea, and constipation are the most common (often dose-dependent and worst early in therapy). It reports no clear increased risk of pancreatic cancer or pancreatitis in large analyses (though rare cases warrant monitoring) and notes a possible small risk of gallbladder disease with semaglutide, reinforcing the need for individualized counseling and long-term safety follow-up.
- 14. Project Title:** Novel Treatments in Pediatric Psychiatry: A Review on the Therapeutic Potential of Ketamine and Psilocybin for Treatment-Resistant Depression, Mood Disorders, and Post-Traumatic Stress Disorder
Type of research: Narrative literature review
Project Summary: This review examines existing literature on therapeutic uses of ketamine and psilocybin for psychiatric conditions (e.g., treatment-resistant depression, PTSD, mood disorders) in pediatric and adolescent populations, highlighting proposed mechanisms such as glutamatergic effects and neuroplasticity. It concludes that early findings are promising but emphasizes ethical concerns and the need for more rigorous pediatric research.
- 15. Project Title:** Effects of Glucagon-Like Peptide-1 Receptor Agonists on the Endocrine System: Benefits vs Risks
Type of research: A systematic literature review
Project Summary: This PRISMA-guided review synthesizes evidence on GLP-1 receptor agonists' benefits and risks across organ systems, emphasizing endocrine effects—particularly thyroid outcomes—and notes that studies and systematic reviews report mixed conclusions about any association with thyroid cancer (including signals in rodents but inconsistent findings in humans). It concludes that endocrine effects may vary by dose, target tissue, and patient comorbidities, supporting individualized prescribing and long-term monitoring.
- 16. Project Title:** Effects of Glucagon-Like Peptide-1 Receptor Agonists on the Endocrine System: Benefits vs Risks
Type of research: A systematic literature review
Project Summary: This PRISMA-guided systematic review evaluates GLP-1 receptor agonists' benefits and complications across multiple body systems, with a focus on reproductive outcomes such as PCOS and male/female infertility. It reports that GLP-1 RAs may improve fertility-related parameters (e.g., weight loss–mediated PCOS symptom improvement, LH/FSH stabilization, and improved testosterone/sperm motility), while emphasizing the need for clearer risk profiles, dosing guidance, and broader clinical-context research.

Geni Perryment, PhD

PROJECTS

- 1. Project Title:** Mental Health Education for Patient Population at UHC-Bullard
Type of Research: Quasi-experimental quality improvement study
Project Summary: This quasi-experimental study evaluated whether a mental health education brochure and resource list improved patients' comfort with utilizing mental health services at a community health clinic in Fresno, California. Pre- and post-intervention survey results showed no significant change in comfort levels, suggesting that educational materials alone may be insufficient and are more effective when paired with personalized, provider-led engagement.
- 2. Project Title:** Evaluation of Gender and Sexuality Minority Friendliness in Primary Care Clinics at the UHC Blackstone Clinic
Type of Research: Quality Improvement (QI) needs assessment / program evaluation study
Project Summary: This quality improvement needs assessment evaluated the inclusivity of primary care practices at the UHC Blackstone Clinic for LGBTQIA+ patients using a standardized evidence-based checklist. While the clinic met many policy and training recommendations, gaps in physical environment inclusivity and sexual orientation/gender identity documentation were identified, highlighting actionable opportunities to improve equitable and affirming care.
- 3. Project Title:** Reducing Gaps in Post-Hospitalization Mental Health Follow-Up Through Barrier Analysis
Type of Research: A retrospective observational study
Project Summary: This study analyzes Omni Family Health data from Bakersfield (n=164) to identify demographic factors associated with attendance at 3- and 7-day post-hospitalization mental health follow-up visits, using cross-tabulations to compare compliance across sex, age, race, education, and location. It finds variation in follow-up adherence by these factors and argues that targeted, culturally competent and technology-enabled strategies (e.g., telehealth) could improve retention.
- 4. Project Title:** Evaluation of Hospice Care Admissions at Compassionate Care Hospice Central California
Type of Research: A Quality Improvement (QI) needs assessment/program development project
Project Summary: This project surveyed Compassionate Care hospice staff (42/60 responses) to identify what patients and families commonly misunderstand or forget during the hospice admissions/onboarding process. Results suggest recurring needs around explaining hospice philosophy, setting expectations for prognosis/outcomes, and reducing information overload, with staff endorsing digital and multilingual resources and FAQ videos as improvements.

Alvaro Pinto, MD, PhD

PROJECTS

- 1. Project Title:** The Development of a Survey to Identify Medical Staff Need for Culturally Appropriate Diabetes Education Material, a Quality Improvement Initiative
Type of Research: A Quality Improvement (QI) needs assessment using a cross-sectional staff survey
Project Summary: This quality improvement project surveyed staff across 33 United Health Centers clinics (60 respondents) to assess needs and barriers for culturally and linguistically tailored type 2 diabetes education in the Central Valley, then created a multilingual resource pamphlet (English, Spanish, Hmong, Punjabi). Most respondents rated tailored education as extremely important, with diet/nutrition being the most common patient concern, supporting the need for more accessible culturally appropriate materials.
- 2. Project Title:** Enhancing medical students' appreciation of anatomy and pathophysiology through forensic autopsy observation
Type of Research: A prospective educational intervention study
Project Summary: This study will test whether CHSU-COM medical students—who do not have cadaveric dissection in their curriculum—report greater perceived value of learning anatomy and pathophysiology after observing a forensic autopsy. It uses pre- and post-observation Likert-scale questionnaires and a paired t-test to assess changes in perceptions.

Avtar Nijjer-Sidhu, PhD, RD

PROJECTS

- 1. Project Title:** Development of a Quality Improvement Workflow to Salvage and Repurpose Unused Medical Supplies

Type of Research: Quality Improvement (QI) project with descriptive, exploratory methods

Project Summary: This quality improvement project aimed to develop a structured workflow for identifying, collecting, and redistributing unused but viable medical supplies from hospitals to resource-limited settings through established medical donation organizations. Findings highlight institutional and regulatory barriers to direct redistribution, while demonstrating that partnerships with existing philanthropic agencies represent the most effective and scalable approach for reducing medical waste and supporting global health efforts.
- 2. Project Title:** The Impact of Nutrition Education on Post-Cancer Treatment: A Quality Improvement Initiative

Type of Research: Quality Improvement (QI)

Project Summary: This study evaluates the impact of a targeted nutritional education intervention on cancer patients' dietary knowledge and its potential to enhance their overall well-being.
- 3. Project Title:** Analyzing the Effect of Training CHSU-COM Students on an Online Resource Directory

Type of Research: A prospective educational intervention study

Project Summary: This study tests whether training CHSU-COM third-year osteopathic medical students to use findhelp.org improves their knowledge and confidence in connecting unhoused or housing-insecure patients with local community resources. Students complete anonymous pre- and post-training surveys, with changes analyzed using matched-pairs t-tests (and ANOVA for subgroup differences).
- 4. Project Title:** Assessing the Benefits and Drawbacks of Food Pharmacy Utilization in the Central Valley

Type of Research: A prospective longitudinal survey evaluation

Project Summary: This project will evaluate how patients at Golden Valley Health Center's Food Pharmacy in Merced use and perceive the program by administering a short survey (including Likert-scale and open-ended items) and linking responses to de-identified demographics. Over time, it aims to track changes in food insecurity and examine relationships between sociodemographic factors, program attendance/usage, and perceived impact to inform improvements and potential expansion.
- 5. Project Title:** The Development of a Survey to Identify Medical Staff Need for Culturally Appropriate Diabetes Education Material, a Quality Improvement Initiative

Type of Research: A Quality Improvement (QI) needs assessment using a cross-sectional staff survey

Project Summary: This quality improvement project surveyed staff across 33 United Health Centers clinics (60 respondents) to assess needs and barriers for culturally and linguistically tailored type 2 diabetes education in the Central Valley, then created a multilingual resource pamphlet (English, Spanish, Hmong, Punjabi). Most respondents rated tailored education as extremely important, with diet/nutrition being the most common patient concern, supporting the need for more accessible culturally appropriate materials.
- 6. Project Title:** Identifying Barriers to a Self-Measured Blood Pressure Program, a Quality Improvement Initiative

Type of Research: A Quality Improvement (QI) barrier assessment using a cross-sectional survey

Project Summary: This project surveyed Aria Health hypertension patients enrolled in a self-measured blood pressure (SMBP) program who were not consistently submitting readings, to identify key barriers to adherence. Findings point to forgetfulness, limited understanding of how to interpret BP readings, and inconsistent provider follow-up as primary obstacles, suggesting that reminders, improved patient education, and stronger provider engagement could boost retention and compliance.

7. **Project Title:** A Retrospective Analysis of Unhoused Patient Population at UHC Tuolumne Clinic (2021-2024): Demographic and Healthcare Access Trends in Central Valley, California

Type of Research: A retrospective observational study

Project Summary: This study retrospectively analyzed PRAPARE social-needs survey data from UHC Tuolumne (Jan 2021–May 2024) to examine demographic factors associated with homelessness and related access barriers. Among 1,157 respondents, 83 reported being unhoused, and analyses found a statistically significant association involving Hispanic/Latino identity and housing/transportation barriers, with transportation emerging as a major obstacle—especially for unhoused Hispanic patients.

Rosa Manzo, PhD

PROJECTS

1. **Project Title:** Prenatal Trends in Huron, CA: A Quality Improvement Investigation of Prenatal Visits at a Rural FQHC

Type of Research: Retrospective observational study

Project Summary: This study analyzes de-identified EHR data from United Health Centers in Huron, CA (2019–2024) to examine prenatal appointment attendance, cancellations, and rescheduling among 6,094 pregnant patients. It finds that appointment status and rescheduling are significantly associated with demographic factors—especially marital status, age, and primary language—suggesting targets for culturally responsive interventions to improve prenatal care access in this rural community.

2. **Project Title:** Impact of Nutritional Sessions on HbA1c Levels for Diabetic Populations in Selma-Highland and Selma-Rose

Type of Research: A comparative observational outcomes study

Project Summary: This project evaluates whether referring diabetes patients at the Selma-Highland and Selma-Rose UHC clinics to one-on-one nutrition/health education programs is associated with improved glycemic control, particularly lower HbA1c. It uses a comparative analysis to examine differences in patient outcomes following referral to individualized nutritional planning.

3. **Project Title:** A Needs-Based Assessment of Health Disparities in Fresno County: Making a Case for the Implementation of a Novel Community Health Worker (CHW) Program

Type of Research: A community needs assessment / secondary data analysis

Project Summary: This project conducts a community needs assessment using public datasets to identify major health disparities and access barriers in Fresno County—especially affecting Latino and Asian residents—to inform the design of a new Community Health Worker (CHW) program. It highlights priority needs (e.g., safe places for physical activity, healthy food access, mental health/SUD supports, and chronic disease/cancer screening gaps) and argues that a CHW program could help reduce these disparities by improving access and prevention.

Edward Merino, PhD

PROJECTS

1. **Project Title:** Determining the Reasons T2D Patients Fail to Undergo Annual Exams, Specifically at Omni Health

Type of Research: A survey-based Quality Improvement (QI) project

Project Summary: This project aimed to identify barriers to routine type 2 diabetes exam compliance (e.g., HbA1c, retinal screening, kidney/urine tests, foot exams, BP checks) among Omni Health patients in California's Central Valley using a phone survey. In practice, outreach yielded only 7 completed surveys from ~63 calls, with most respondents reporting full compliance, making it difficult to draw meaningful conclusions about barriers and highlighting the need for better recruitment and data collection methods.

- 2. Project Title:** A Comprehensive Educational Study of Ashwagandha: Exploring Benefits & Potential Risks
Type of Research: Cross-sectional survey study
Project Summary: This study surveys college students (18–36) in California’s Central Valley to assess awareness, perceptions, and use of ashwagandha, including understanding of its purported benefits, mechanisms, and safety. Preliminary responses (~90 so far) suggest some demographic differences in use (e.g., higher reported use among Asian students) but overall limited knowledge of recommended guidelines and potential adverse effects, indicating an evidence–awareness gap.
- 3. Project Title:** The Relationship Between Patient Demographics and Hepatobiliary Side Effects for GLP-1 Receptor Agonists
Type of Research: A focused narrative review with secondary data analysis
Project Summary: This focused review examines evidence linking GLP-1 receptor agonists (e.g., semaglutide) to hepatobiliary adverse events such as gallbladder dysfunction, cholelithiasis, and cholecystitis by pulling raw data from recent Embase/PubMed studies and the FDA adverse event database. It proposes further stratified analyses (sex, race, age, formulation/dose) to better characterize risk and inform prescribing decisions.
- 4. Project Title:** Correlation of patient hemoglobin A1c and C-peptide as a function of time and treatment
Type of Research: Retrospective observational study
Project Summary: This study retrospectively analyzes long-term lab data from Bautista Medical Group type 2 diabetes patients to evaluate whether C-peptide correlates with HbA1c over time and could serve as a useful biomarker for disease progression. Preliminary results show higher HbA1c in males and a significant association between HbA1c and male sex, while an observed negative HbA1c–C-peptide correlation could not be confirmed statistically due to very limited paired C-peptide data.
- 5. Project Title:** NADPH Oxidase Biochemistry, Pathological Consequences, and Potential Therapeutic Applications
Type of Research: A narrative review
Project Summary: This review summarizes the NADPH oxidase (NOX) enzyme family, including core NOX members and the accessory subunits required for activation, and explains how NOX overactivation contributes to disease. It specifically highlights the pathophysiologic roles of NOX1 and NOX5 and reviews emerging NOX inhibitors as potential therapeutics.
- 6. Project Title:** Assessing the Impact of an Informational Brochure on Parental Stress, Self-Efficacy, and Understanding Following Pediatric Referral for Autism Diagnosis: A Pilot Study
Type of Research: A prospective educational intervention
Project Summary: This study evaluated whether giving parents an informational (English/Spanish) brochure at the time of a positive autism screen/referral improved their ability to cope while waiting for a formal ASD evaluation in Madera, CA. Using pre–post measures collected immediately before and after the brochure, parents showed reduced stress, increased self-efficacy, and improved knowledge of next steps and at-home support strategies.
- 7. Project Title:** An Informational Wound Care Pamphlet and Survey Administered to the General Population
Type of Research: A prospective educational intervention
Project Summary: This study evaluated whether an educational wound-hygiene pamphlet improves non-medical CHSU staff’s knowledge and comfort with basic wound care by administering the same 10-question survey before and after the pamphlet-based learning. The goal is to quantify knowledge gains and assess whether the pamphlet could be useful as a patient-facing education tool, with plans for stronger analysis as the participant pool grows.
- 8. Project Title:** scoping review of current techniques for assessing graft site morbidity in QT and BPTP ACL autograft reconstruction
Type of Research: Scoping review
Project Summary: This scoping review examines how graft-site morbidity after ACL reconstruction—such as anterior knee pain, paresthesia, and strength deficits—is assessed for common autografts like BPTB and quadriceps tendon. Across 43 included studies, it finds wide variation in measurement methods and reporting, arguing for standardized assessment tools to enable better comparisons and more patient-centered graft selection.

9. **Project Title:** Inhibiting NOXO1 and CYBA binding to reduce NADPH oxidase I dependent ROS damage in skin explants

Type of Research: Preclinical experimental laboratory research

Project Summary: This study designed and tested small-molecule inhibitors intended to disrupt NOX holoenzyme assembly in skin cells to reduce UV-induced reactive oxygen species and DNA damage. Using computational docking plus in vitro/skin explant experiments, the lead compound (NOX_inh_5) appeared non-cytotoxic, improved cell viability under UV exposure, inhibited NOXO2–CYBA complex formation (ITC/HSQC-NMR), and reduced UV damage markers (e.g., p53 stabilization and cyclobutane dimers).

10. **Project Title:** Wound Care Education for the Non-Medical Community

Type of Research: A prospective educational intervention

Project Summary: This project evaluates whether an educational pamphlet can improve non-medical community members' knowledge about wound types, infection signs, and when to seek medical care, using pre- and post-surveys. In an initial small sample (n=9) from a health fair, average scores increased from 4.78/10 to 7.56/10 after reading the pamphlet, suggesting the pamphlet may be effective and warranting broader online data collection.

Joanne Muellenbach, MLS, AHIP

PUBLICATIONS

1. Robinson K, Bontekoe K, **Muellenbach J**. Integrating PICO principles into generative artificial intelligence prompt engineering to enhance information retrieval for medical librarians. *J Med Libr Assoc.* 2025;113(2):184-188. doi:10.5195/jmla.2025.2022

PROJECTS

1. **Project Title:** Board Exam Preparation Resource Trends in Academic Health Sciences Libraries Serving Colleges of Osteopathic Medicine Programs
Type of Research: A mixed-methods descriptive study
Project Summary: This poster reports a two-phase mixed-methods study of U.S. colleges of osteopathic medicine (COM) board-exam prep resources: a survey of 42 COM library directors (35 responses; 83% response rate) plus follow-up Zoom focus-group interviews (n=7 so far) to understand what tools are provided, who funds them, and how libraries support access and usage. Key takeaways include wide variation in funding models, TrueLearn emerging as a common COMLEX prep standard, and the importance of governance/partnerships and usage data for sustaining subscriptions.

Mohammad Rahman, PhD, MSP, MSS

PROJECTS

1. **Project Title:** Evaluating the Association Between Caregiver IBS and Pediatric Constipation in the Central Valley
Type of Research: Educational Research
Project Summary: This project evaluates the impact of Osteopathic Principles and Practices (OPP) Table Assistants from the Class of 2025 on the CHSU-COM community. The study aims to assess the perceived benefits of the Table Assistant program for both the assistants and the students they support. The research will involve surveys and direct observations to measure knowledge, attitudes, and engagement in osteopathic education and practice.

- 2. Project Title:** Determining the Reasons T2D Patients Fail to Undergo Annual Exams, Specifically at Omni Health

Type of Research: A survey-based Quality Improvement (QI) project

Project Summary: This project aimed to identify barriers to routine type 2 diabetes exam compliance (e.g., HbA1c, retinal screening, kidney/urine tests, foot exams, BP checks) among Omni Health patients in California's Central Valley using a phone survey. In practice, outreach yielded only 7 completed surveys from ~63 calls, with most respondents reporting full compliance, making it difficult to draw meaningful conclusions about barriers and highlighting the need for better recruitment and data collection methods.
- 3. Project Title:** Barriers to Behavioral Health at UHC-Parlier

Type of Research: Retrospective observational study

Project Summary: This study analyzes de-identified appointment data for 7,204 adult patients at the UHC-Parlier clinic (May 2023-May 2024) to identify which demographics and visit factors are associated with behavioral health appointment cancellations. It finds statistically significant associations between cancellations and distance to clinic, insurance type, and provider specialty, with additional seasonal variation across the year—suggesting targets for barrier-reduction interventions.
- 4. Project Title:** Correlation of patient hemoglobin A1c and C-peptide as a function of time and treatment

Type of Research: Retrospective observational study

Project Summary: This study retrospectively analyzes long-term lab data from Bautista Medical Group type 2 diabetes patients to evaluate whether C-peptide correlates with HbA1c over time and could serve as a useful biomarker for disease progression. Preliminary results show higher HbA1c in males and a significant association between HbA1c and male sex, while an observed negative HbA1c-C-peptide correlation could not be confirmed statistically due to very limited paired C-peptide data.
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Type of Research: A prospective educational intervention

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- 6. Project Title:** The Development of a Survey to Identify Medical Staff Need for Culturally Appropriate Diabetes Education Material, a Quality Improvement Initiative

Type of Research: A Quality Improvement (QI) needs assessment using a cross-sectional staff survey

Project Summary: This quality improvement project surveyed staff across 33 United Health Centers clinics (60 respondents) to assess needs and barriers for culturally and linguistically tailored type 2 diabetes education in the Central Valley, then created a multilingual resource pamphlet (English, Spanish, Hmong, Punjabi). Most respondents rated tailored education as extremely important, with diet/nutrition being the most common patient concern, supporting the need for more accessible culturally appropriate materials.
- 7. Project Title:** Prenatal Trends in Huron, CA: A Quality Improvement Investigation of Prenatal Visits at a Rural FQHC

Type of Research: Retrospective observational study

Project Summary: This study analyzes de-identified EHR data from United Health Centers in Huron, CA (2019-2024) to examine prenatal appointment attendance, cancellations, and rescheduling among 6,094 pregnant patients. It finds that appointment status and rescheduling are significantly associated with demographic factors—especially marital status, age, and primary language—suggesting targets for culturally responsive interventions to improve prenatal care access in this rural community.

- 8. Project Title:** Identifying Barriers to a Self-Measured Blood Pressure Program, a Quality Improvement Initiative
Type of Research: A Quality Improvement (QI) barrier assessment using a cross-sectional survey
Project Summary: This project surveyed Aria Health hypertension patients enrolled in a self-measured blood pressure (SMBP) program who were not consistently submitting readings, to identify key barriers to adherence. Findings point to forgetfulness, limited understanding of how to interpret BP readings, and inconsistent provider follow-up as primary obstacles, suggesting that reminders, improved patient education, and stronger provider engagement could boost retention and compliance.
- 9. Project Title:** Reducing Gaps in Post-Hospitalization Mental Health Follow-Up Through Barrier Analysis
Type of Research: A retrospective observational study
Project Summary: This study analyzes Omni Family Health data from Bakersfield (n=164) to identify demographic factors associated with attendance at 3- and 7-day post-hospitalization mental health follow-up visits, using cross-tabulations to compare compliance across sex, age, race, education, and location. It finds variation in follow-up adherence by these factors and argues that targeted, culturally competent and technology-enabled strategies (e.g., telehealth) could improve retention.
- 10. Project Title:** A Retrospective Analysis of Unhoused Patient Population at UHC Tuolumne Clinic (2021-2024): Demographic and Healthcare Access Trends in Central Valley, California
Type of Research: A retrospective observational study
Project Summary: This study retrospectively analyzed PRAPARE social-needs survey data from UHC Tuolumne (Jan 2021–May 2024) to examine demographic factors associated with homelessness and related access barriers. Among 1,157 respondents, 83 reported being unhoused, and analyses found a statistically significant association involving Hispanic/Latino identity and housing/transportation barriers, with transportation emerging as a major obstacle—especially for unhoused Hispanic patients.
- 11. Project Title:** A Needs-Based Assessment of Health Disparities in Fresno County: Making a Case for the Implementation of a Novel Community Health Worker (CHW) Program
Type of Research: A community needs assessment / secondary data analysis
Project Summary: This project conducts a community needs assessment using public datasets to identify major health disparities and access barriers in Fresno County—especially affecting Latino and Asian residents—to inform the design of a new Community Health Worker (CHW) program. It highlights priority needs (e.g., safe places for physical activity, healthy food access, mental health/SUD supports, and chronic disease/cancer screening gaps) and argues that a CHW program could help reduce these disparities by improving access and prevention.

Sherese Richards, MD, MBA, MMed

PUBLICATIONS

1. Kadavakollu S, Dang T, Bains J, **Richards S**, et al. A comprehensive review of clinical experiences and extracurricular activities for US premedical students applying to osteopathic medical schools. *J Osteopath Med.* 2025;125(4):185-202. Published 2025 Jan 23. doi:10.1515/jom-2022-0254

PROJECTS

- 1. Project Title:** The Impact of Commercial Third-Party Learning Resources on Pre-Clinical Medical Education: A Systematic Review on Faculty and Student Perspectives
Type of Research: Systematic review with thematic synthesis
Project Summary: This systematic review examined faculty and student perspectives on the use of commercial third-party learning resources (CLRs) in preclinical medical education and their impact on learning outcomes, teaching practices, and curriculum design. Analysis of 34 studies revealed strong evidence supporting student utilization and effectiveness of CLRs, alongside a notable gap in faculty-focused research, underscoring the need for greater institutional guidance and adaptation to evolving self-directed learning models.

2. **Project Title:** Navigating the Rise of Commercial Third-Party Learning Resources: Perspectives of Pre-Clinical Medical Educators

Type of Research: A qualitative Delphi study

Project Summary: This study will explore CHSU-COM faculty “experts” perceptions of commercial learning resources (third-party study tools), focusing on how educators verify resource quality, guide student selection, and adapt their teaching/support roles as these tools proliferate. It will use iterative Delphi-style surveys followed by interviews, with thematic analysis to identify key themes about challenges, responsibilities, and integration with the curriculum.

Kyle Robinson, MLIS

PUBLICATIONS

1. **Robinson K**, Bontekoe K, Muellenbach J. Integrating PICO principles into generative artificial intelligence prompt engineering to enhance information retrieval for medical librarians. *J Med Libr Assoc.* 2025;113(2):184-188. doi:10.5195/jmla.2025.2022
2. Bright Iv HS, **Robinson K**, Fitterling L, Kelley S, Wang MY, Lipke L. Top 100 cited articles in osteopathic medical education: A bibliometric analysis. *Med Ref Serv Q.* 2025;44(4):421-440. doi:10.1080/02763869.2025.2588233

PROJECTS

1. **Project Title:** Board Exam Preparation Resource Trends in Academic Health Sciences Libraries Serving Colleges of Osteopathic Medicine Programs
Type of Research: A mixed-methods descriptive study
Project Summary: This poster reports a two-phase mixed-methods study of U.S. colleges of osteopathic medicine (COM) board-exam prep resources: a survey of 42 COM library directors (35 responses; 83% response rate) plus follow-up Zoom focus-group interviews (n=7 so far) to understand what tools are provided, who funds them, and how libraries support access and usage. Key takeaways include wide variation in funding models, TrueLearn emerging as a common COMLEX prep standard, and the importance of governance/partnerships and usage data for sustaining subscriptions.

Anitha K. Shenoy, PhD

PUBLICATIONS

1. Nayak A, Streiff H, Gonzalez I, Adekoya OO, Silva I, **Shenoy AK**. Wnt Pathway-Targeted Therapy in Gastrointestinal Cancers: Integrating Benchside Insights with Bedside Applications. *Cells.* 2025;14(3):178. Published 2025 Jan 24. doi:10.3390/cells14030178

PROJECTS

1. **Project Title:** Wnt Pathway Targeted Therapy in GI Cancers: Integrating Benchside Insights with Bedside Applications
Type of Research: Narrative translational literature review
Project Summary: This narrative translational review examines the role of Wnt signaling pathway dysregulation in the development and progression of gastrointestinal cancers and evaluates emerging therapeutic strategies targeting key pathway components. By integrating preclinical findings with ongoing and completed clinical trials, the review highlights both the therapeutic potential and translational challenges of Wnt-targeted therapies in colorectal and other GI malignancies.

Maria Torres, MS, RDN

PROJECTS

- Project Title:** Determining the Reasons T2D Patients Fail to Undergo Annual Exams, Specifically at Omni Health
Type of Research: A survey-based Quality Improvement (QI) project
Project Summary: This project aimed to identify barriers to routine type 2 diabetes exam compliance (e.g., HbA1c, retinal screening, kidney/urine tests, foot exams, BP checks) among Omni Health patients in California's Central Valley using a phone survey. In practice, outreach yielded only 7 completed surveys from ~63 calls, with most respondents reporting full compliance, making it difficult to draw meaningful conclusions about barriers and highlighting the need for better recruitment and data collection methods.
- Project Title:** Investigating Sodium Levels in Fresno Unified School Lunches and Their Impact on Children's Health and Future Wellness
Type of Research: A narrative review / public health commentary
Project Summary: This article argues that high sodium content in school-provided meals may contribute to rising childhood hypertension and other chronic disease risks, and it examines the hypothesis that combined meals offered in Fresno Unified School District could exceed USDA daily sodium recommendations—potentially with greater impact in economically disadvantaged areas. It synthesizes existing research on sodium in school meals, socioeconomic nutrition disparities, and public health implications, and proposes potential school- and parent-level interventions.
- Project Title:** Impact of Nutritional Sessions on HbA1c Levels for Diabetic Populations in Selma-Highland and Selma-Rose
Type of Research: A comparative observational outcomes study
Project Summary: This project evaluates whether referring diabetes patients at the Selma-Highland and Selma-Rose UHC clinics to one-on-one nutrition/health education programs is associated with improved glycemic control, particularly lower HbA1c. It uses a comparative analysis to examine differences in patient outcomes following referral to individualized nutritional planning.
- Project Title:** Development and Evaluation of Cultural Competency Curriculum in Culinary Medicine at an Osteopathic Medical School
Type of Research: A prospective educational intervention study
Project Summary: This project developed a culturally focused culinary medicine curriculum for CHSU-COM first- and second-year students and will evaluate whether it improves nutrition knowledge, cooking/nutrition counseling self-efficacy, and cultural competency. Outcomes are being measured with pre- and post-course surveys (22-item pre, 29-item post) and analyzed with a two-tailed t-test.

Mahboob Qureshi, MD, MPH, PhD

PUBLICATIONS

- Kadavakollu S, Dang T, Bains J, **Qureshi M**, et al. A comprehensive review of clinical experiences and extracurricular activities for US premedical students applying to osteopathic medical schools. *J Osteopath Med*. 2025;125(4):185-202. Published 2025 Jan 23. doi:10.1515/jom-2022-0254

Ron Yee, MD, MBA, FAAFP

PROJECTS

- Project Title:** Barriers to Referral Delays in Rural Surgical Care: A Quality Improvement Approach
Type of Research: A Quality Improvement (QI) process-improvement project
Project Summary: This quality improvement project aims to reduce delays in surgical referral completion at a rural Central Valley clinic by 20% within one year using the Six Sigma DMAIC framework. It will identify workflow barriers through interviews and process mapping, establish baseline referral times via retrospective chart review, and implement interventions (checklists, scheduling support, patient education) with ongoing metric monitoring to sustain improvements.

Student Scholarly Activity Travel Locations and Conferences 2025

NAME	CONFERENCE	LOCATION
Abel Thomas	Central California Psychiatric Society	100 Capitol Mall Sacramento, CA 95814
Abhijeet Nayak	Western Medical Research Conference	Carmel, CA
alex cha	OPSC "Fun in the Sun"	New Port Beach
Alexander Paul Arzoo	Western Medical Research Conference	Carmel, CA
Alexandra Naicker	2026 Western Medical Research Conference	Carmel, CA
Angel Zohrabian	APA Regions 9 & 10 Annual Meeting 2025	Hilton Garden Inn San Diego Downtown/Bayside
Angel Zohrabian	Children's Oncology Group Annual Fall Meeting	Student Research/Poster Travel Poster Presentation
Anhadh Singh Jassal	OPSC Fun in the Sun	Newport Beach, CA
Arielle Radparvar	American Osteopathic College of Dermatology Spring Conference 2025	West Palm Beach, Florida
Bardya Haghighat	OSPC	Newport Beach
Behzad Maher	OPSC Fun in the Sun 2025	VEA Newport Beach, A Marriott Resort & Spa .
Benjamin Engelken Falkenstein	SAVE THE DATE: WESTERN MEDICAL RESEARCH CONFERENCE	Carmel, CA
Brian Tran	2025 Health Meets Food: The Culinary Medicine Conference	New Orleans, LA
Brooke Guenther	Western Medical Regional Conference	Carmel, California
Cameron DeLaere	Western Medical Research Conference	Carmel, CA
Corianna DeLisi	Association of VA surgeons Conference https://vasurgeons.org/2025-Meeting	
Dominic Rivera	Osteopathic Physicians and Surgeons	Newport beach, Ca

NAME	CONFERENCE	LOCATION
Donia Javidi	Osteopathic Physicians & Surgeons of California Fun in the Sun 2025 (64th Annual Convention)	VEA Newport Beach, A Marriott Resort & Spa.
Donna Badr	2025 Unified California Community Health Conference	San Diego
Felicia Hung	American Academy of Dermatology Annual Meeting	Denver, CO
Felicia Hung	American Osteopathic College of Dermatology - 2025 Spring New Trends in Dermatology	West Palm Beach, FL
Gabriela V. Seto	Skin of Color Update 2025	New York, NY
George Wilkins	2025 Inaugural Fall Research Symposium	University Plaza Waterfront Hotel, Sacramento
Husnaa Formoli	2025 NIDDK Summer Research Program Symposium	Nashville, Tennessee
Ikroop Miglani	Society for Academic Emergency Medicine (SAEM) Annual Conference	Philadelphia, PA
Jennifer Tasarz	2025 AMA Annual Meeting of the House of Delegates at the Hyatt Regency Chicago	Chicago, IL
Johan HSu	Society for Academic Emergency Medicine	Philadelphia, PA
Kailey Bae	Dermatology Innovation Symposium	Anaheim, CA
Kimberly Phong	Society of Interventional Radiology Annual Scientific Meeting	Nashville, TN
Lakshyaa Balakrishnan	OPSC Fun in the Sun Conference 2025	Newport Beach, California
Layla Mazdeyasnan	The Association for Research in Vision and Ophthalmology (ARVO)	Salt Lake City, Utah
Lynn Priscilla Fadel	CalDerm-PDA 2025 Meeting	San Diego, CA
Lynn Priscilla Fadel	International Conference on Dermatology and Cosmetology	Remote
Marian Sarah Badriyha	Unified California Community Health Conference (UCCHC)	San Diego
Maryam Khan	2025 Unified California Community Health Conference	UC San Diego School of Medicine

NAME	CONFERENCE	LOCATION
Musa Dajani	3rd Annual Unified California Community Health Conference	San Diego
Neda Aminzadeh	AOCPMR25 Annual Meeting	Seattle Renaissance Hotel, Washington
Negin Fadaee	Western Medical Research Conference	Carmel, CA
Rachel Kaneakua	2025 CNS Annual Meeting	LA
Ruth Beltran	LMSA National Conference 2025	Chicago, Illinois
Ryan Bae	OPSC 64th Annual "Fun in the Sun"	VEA Newport Beach, Marriott Resort and Spa.
Skylynn Thangwaritorn	ENDO 2025	San Francisco, CA
Tara Andrade	American Institute of Ultrasound in Medicine	Orlando FL
Test, Test	AACOM Educating Leaders	Las Vegas, NV
Valerie Domingo	2026 Western Medical Research Conference	Carmel, CA
Valerie Pena	American Institute of Ultrasound in Medicine	Orlando, Florida
Victor Fu	Future Physicians for Change	Hyatt Regency Crystal City
Wendy Shang	AMP Annual Meeting	Newport Beach, California
Xianzhen Deng	American Osteopathic College of Physical Medicine & Rehabilitation Annual Meeting	Seattle, WA
Yasser Abdul Bagi	Unified California Community Health Conference (UCCHC)	UC San Diego School of Medicine
Yusuf Corleone	Introduction to Osteopathy in the Cranial Field (Hybrid - New England Lab) Fall 2025	Great Barrington, MA
Zian Shabbir	ACOFPCA-49	Disneyland Hotel in Anaheim, CA

2025 Student Summer Research Projects

FACULTY PI	STUDENT(S)	DESCRIPTION OF RESEARCH PROJECT
Khodadad Namiranian	Armen Ter-Oganesyan	The Health and Retirement Study (https://hrs.isr.umich.edu/about) is a longitudinal study of more than 10,000 participants over more than 20 years. The de-identified database contains extensive medical and psychosocial variables. This project will examine associations between (1) back pain and mortality and (2) chronic pain and the cost of medical services.
Joseph Lin	Ashley Okhovat	This qualitative case study explores OMS-1 perceptions of using augmented and virtual reality for learning anatomy. Semi-structured group interviews with members of the Class of 2028 will examine perceived benefits, challenges, and engagement with immersive technology, with findings intended to inform future AR/VR implementation in early medical education.
Sudhakar Pemminati	Jason Li	Title: Effects of GLP-1 on the Eye: A Systematic Review. Glucagon-like peptide-1 (GLP-1) receptor agonists are incretin-based therapies primarily used for type 2 diabetes and obesity. This review examines ocular effects associated with GLP-1 receptor agonists.
Karen Bontekoe	Beatrice Weier	A scoping review examining the effect of fatigue on knee injuries in female rugby players.
Alvaro Pinto	Adersin Vartanyan	Chronic diseases such as diabetes represent a major public health burden, with disparities often seen in rural and agricultural regions. This project synthesizes existing research on chronic disease prevalence and associated risk factors in California's Central Valley, addressing a gap in systematic reviews or meta-analyses.
Peter Botros	Kate Swertfager	Participation in an existing research project focused on knee injuries in female athletes.

FACULTY PI	STUDENT(S)	DESCRIPTION OF RESEARCH PROJECT
Sara Goldgraben	Claire Schmidt and Noa Gorgas	An ongoing project analyzing the distribution of OB/GYN clinic locations in Fresno County and their relationship to health equity metrics using spatial analysis.
Sudhakar Pemminati	Kate Nhu Duong	A systematic review of Type 2 diabetes mellitus (T2DM) management following PRISMA guidelines. The review aims to identify current and recent pharmacological advancements in T2DM through a comprehensive and transparent literature search.
Mohammad Rahman	Paramveer Brar	Title: Health Insurance Type and Utilization of Preventive Services in U.S. Adults: A National Survey Analysis. Using MEPS data, this cross-sectional secondary analysis examines how insurance type (private, Medicaid, Medicare, uninsured) affects utilization of preventive services such as mammograms, colonoscopies, and flu vaccinations.
Kyle Robinson & Eddie Merino	Eden Chelouche	This review evaluates whether generative AI tools used in medical and health professions education measurably save faculty time, reduce costs, or improve student learning outcomes, building on a framework of four proposed efficiency domains.
Talal El-Hefnawy	Ethan Kuss and Sarah Shehata	This study examines the non-classical impact of endocrine-disrupting chemicals on lung cancer. It investigates whether environmental chemicals increase ERK1/2 phosphorylation and promote cisplatin resistance, assessing mRNA expression changes using q-RT-PCR in A549 lung cancer cells.