

Ochsner 2022 Post-Doctoral Research Fellow



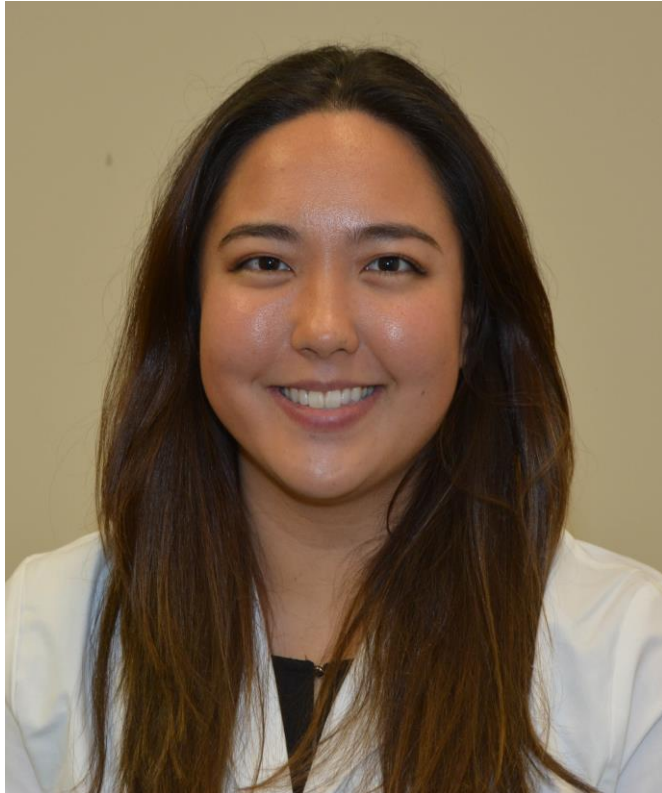
Arielle Kasindi

Mentor: Dr. Jose Posas, III

Variations in MoCA scores in Urban vs Rural settings:
Examining implicit bias in the Louisiana rural Cajun
population

Current research supports the stance that the Montreal Cognitive Assessment (MoCA) is not an effective or reliable screening tool for cognitive impairment. Studies show that it overdiagnoses severe cognitive decline in minority populations. An implicit bias may exist in the test and may explain some of the following observations: African American populations score on average 23.2, 3 points lower than the average which indicates mild cognitive decline. Similarly, individuals with poor education and/or less than 12 years of education scored between 16.1-20.3. The purpose of this study is to analyze the significance of variations in MoCA scores between several cohorts, primarily focusing on Louisiana rural and urban populations. The study will examine the differences amongst these populations taking into consideration the unique cultural, socioeconomic status, and ethnic diversity between these groups. The findings will likely be applicable to any other rural/urban relationship outside of Louisiana and shed light on the biases of the MoCA. Importantly, the findings will further the field of cognitive neurology and the understanding of what factors influence cognitive decline.

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Sarah Chrisholm

Mentor: Dr. Frank B. Williams

Neonatal outcomes following discontinuation of routine maternal oxygen supplementation for non-reassuring fetal status due to the COVID-19 pandemic

Fetal heart rate (FHR) monitoring through the course of labor is the most common obstetrical procedure in the United States. Non-reassuring fetal heart rate (FHR) tracings, characterized as category II or III based on patterns observed over time, raise concern for fetal compromise and are associated with adverse neonatal outcomes. Routine management of such tracings includes supplemental maternal oxygen, even in the absence of maternal hypoxia, based on the hypothesis that increased maternal oxygenation improves fetal respiratory status. Emerging data challenge this assumption, showing routine maternal oxygenation having no effect on neonatal acidemia, intensive care admission or other complications. Due to the COVID-19 pandemic, our institution implemented discontinuation of routine supplemental oxygenation for non-reassuring FHR tracings due to increased risk of transmission of the virus. The change provides opportunity to compare pre- and post-de-implementation cohorts to determine real-world effects of the policy on fetal acidemia. We hypothesize that the policy change did not increase the risk of neonatal acidemia.



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Dustin Chalmers

Mentor: Dr. Juan Carlos Velez

Urinary Sediment Biomarkers for Diagnosis of Acute Tubular Necrosis

Acute kidney injury (AKI) is a leading cause of morbidity and mortality in intensive care units. Identification of urinary casts through microscopic examination of the urinary sediment is a well-established clinical tool with both diagnostic and prognostic value for the evaluation of AKI in the hospital setting. In particular, the presence of abundant muddy brown granular casts (MBGCs) is a pathognomonic finding for acute tubular necrosis (ATN). Unfortunately, hospital laboratories do not consistently report the presence or type of urinary casts. When the urinary casts are reported, the reports are grossly inaccurate. A novel urine test that could accurately predict the presence of abundant MBGCs in the urine would replace the microscopic examination and become a useful tool for the treating clinician. This would increase efficiency and improve correct identification of the etiology of AKI, and in particular, ATN. Previous work in our lab has identified two proteins, DCXR and ATP5A, as good candidate biomarkers for the presence of abundant MBGCs.

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Nadia Hussein

Mentor: Dr. George Fuhrman

Investigating the impact of timing of colostomy closure on clinical outcomes

Colostomy creation is a common procedure with a high complication rate, particularly when performed emergently. A colostomy may in some cases be reversed to reestablish bowel continuity. Various factors impact the suitability of a patient for colostomy closure and choice of timing, including patient age, comorbidities, and nutritional status. The ideal timing of colostomy closure remains unclear; existing literature on the subject provides conflicting results regarding whether timing of closure affects post-operative outcomes. The presence of a colostomy has a negative impact on quality of life (QOL); anxiety, depression, and sexual problems have been frequently reported among patients with a stoma. Given the impact of ostomies on QOL, the risk of complications following closure, and the evidence of disparities in closure timing, it is essential to establish optimal timing of colostomy closure to better balance patient safety, preference and equity.

The primary aim of this study is to identify whether an association exists between the timing of colostomy/ileostomy closure and clinical outcomes. This knowledge will enhance clinical practice by better allowing surgeons to balance clinical risk with patient priorities and quality of life in deciding when to perform colostomy closure.

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Jay Shah

Mentor: Dr. Yashar Eshraghi

**Telemedicine: Pain Free or Painful? Use of VR and
Telemedicine in Pain Management in the COVID-19 Era and
Beyond**

Historically, pain is undertreated due to various barriers including geographic distance to specialists, limited functional mobility, as well as economic and educational limitations. Lack of access to pain specialty services can be a major contributor to patient suffering, healthcare overutilization, and the development of chronic pain. Telemedicine has been suggested as a unique option for many chronic pain patients who are unable to seek in-person consultation.

Our primary objective is to utilize patient-reported impressions of telemedicine use in pain management and self-reported demographic information to determine the advantages and disadvantages of telehealth in PM. We hypothesized that there would be high levels of patient satisfaction across all demographics, though more so in younger patients, those who must travel far to the clinic, and those who reported telemedicine as cost-saving. Our secondary objective is to identify any socioeconomic or demographic differences and predictors in patient satisfaction with telemedicine and its use – in an attempt to improve the care equity in pain medicine. After these two steps have been robustly evaluated, we would like to develop a proof-of-concept for the use of VR / AR in patient care visits using existing technology at the Ochsner m3D lab and pilot the technology in both in-person and telemedicine visits.

