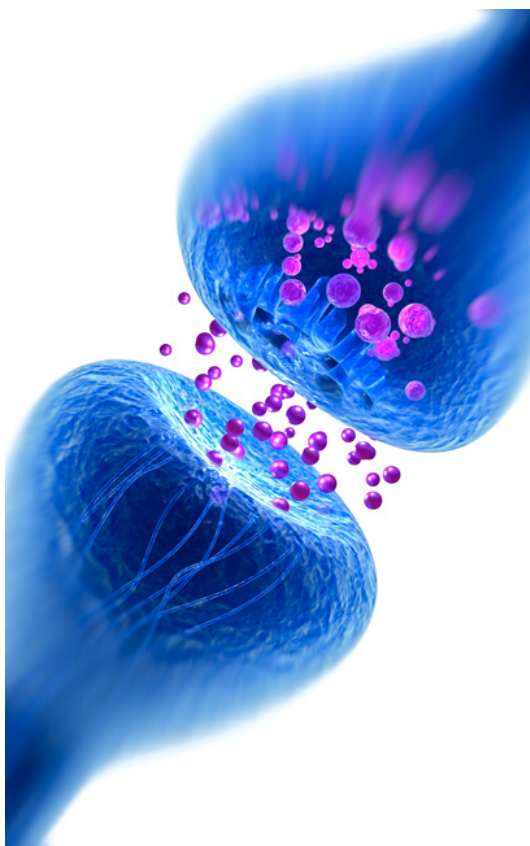




PROMISTM
LAB

Pain Relief and Opioid Mitigation
Innovation Science



ABOUT US

Our Mission

Create a cohesive strategy to optimize pain management and safe opioid prescribing and to reduce the impact of substance abuse on our community.

Our Vision

A transformative process, to make pain management a patient-centered and multidisciplinary coordinated care model.

To address the gaps in the continuum of care required for optimal management of pain in our population and outline an innovative clinical framework to transform care by enhancing service to our patients using a value based approach.

Building community outreach and infrastructure to improve quality of life and reduce the impact of substance abuse on our population.



OUR TEAM

AMANDA NELLI MD

Lead PostDoctoral Researcher

Amanda is the lead postdoctoral researcher in the PROMIS Lab. Dr. Nelli is pursuing mentored research and scholarly training in pain medicine and opioid mitigation. Dr. Nelli conducted Industry research in Chicago before coming to Duke to lead the PROMIS Lab under the direction of Dr. Gulur.

NANCY PAHWA MD

PostDoctoral Researcher

Nancy joins us from California where she worked actively with patients at the dedicated COVID hospital in San Francisco and is looking forward to furthering her research in pain medicine.

PADMA GULUR MD

PRINCIPAL INVESTIGATOR

Padma Gulur, MD, is Professor of Anesthesiology and the Executive Vice Chair for Operations and Performance at Duke Anesthesiology. Dr. Gulur completed her residency in anesthesiology at Boston University. She then completed her fellowship training in pain medicine at the Massachusetts General Hospital at Harvard Medical School. Dr. Gulur specializes in advanced interventional pain management. Dr. Gulur is committed to researching innovative techniques to assess and manage pain.

RESEARCH PORTFOLIO

Our research is focused on Optimal pain management and care delivery in high risk populations, population health and opioid sparing treatment options.



LIGHT BASED PAIN MANAGEMENT

GREEN LIGHT FILTERING EYEGLASSES

We are conducting a pilot trial of acute postoperative pain in thoracic surgery patients and chronic pain in fibromyalgia patients to evaluate the feasibility and efficacy of eyeglasses-based colored light therapy.

Recruitment for the acute arm of the study is complete. The chronic arm of the study is currently recruiting.



Opioid exposure during clinical care is a key risk factor for subsequent misuse, and the probability of prolonged use scales with both dose and duration of opioid exposure. Minimizing opioid exposures reduces misuse risk. To do so while still effectively treating pain relies on opioid sparing multimodal analgesic strategies. In practice, this manifests as polypharmacy. Non-pharmacological options remain limited in efficacy or are difficult to integrate into clinical care.

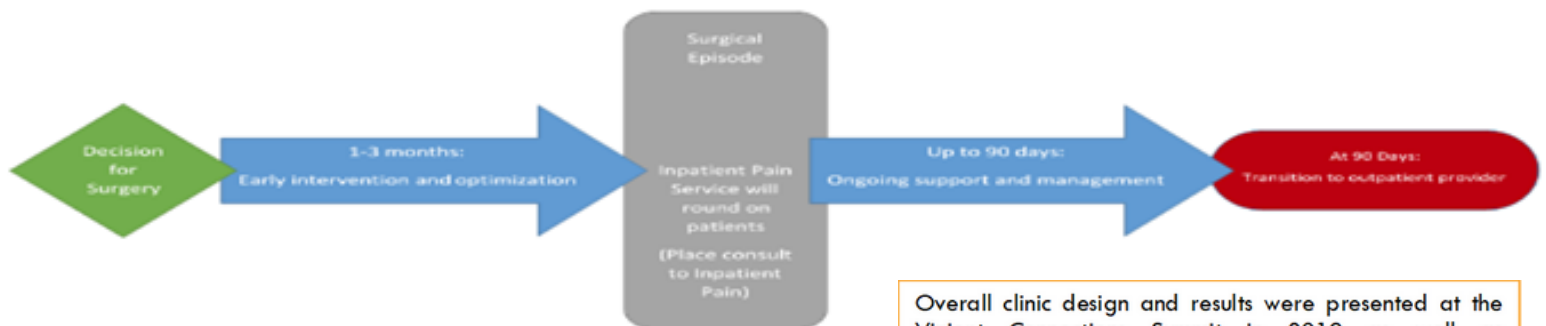
Recent preclinical findings have demonstrated robust antinociception in response to green light. These effects occurred both through the addition of green illuminating light and through green-biased filtration of visualized ambient light via contact lenses. Therefore, if green light analgesia is possible in human populations, it should be inducible simply by using green lensed eyeglasses.

This study is supported by a grant from the National Institute of Drug Abuse (NIDA).

PERIOPERATIVE PAIN CARE

OPTIMIZATION OF THE SURGICAL EPSIODE OF CARE FOR BEST PATIENT OUTCOMES

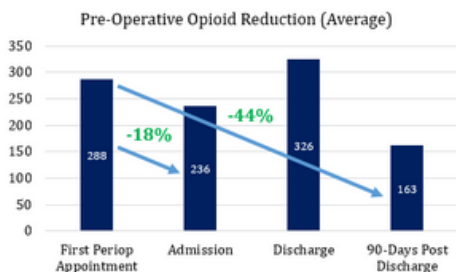
Pain management has a significant influence on postoperative outcomes. Multiple studies have shown that patients taking high dose opioids prior to a surgical procedure have worse overall outcomes than patients not taking opioids or taking low dose opioids prior to their procedure. At Duke Health, we established the Perioperative Pain Clinic, which is the first of-its-kind in the nation. The clinic aids in the functional recovery of surgical patients through personalized care plans to manage pain. The purpose of the clinic is to preoperative optimization of pain and medication management. Traditional preadmission testing clinics or surgical offices are poorly equipped to provide perioperative care for chronic pain patients. Customary chronic pain clinics frequently encounter access issues in accommodating perioperative timelines to optimize patients. The Duke Perioperative Pain Care clinic provides comprehensive care from the decision to have surgery, through the inpatient stay, and up to 90 days postoperative.



Overall clinic design and results were presented at the Vizient Connections Summit in 2019 as well as Anesthesiology 2019.

Gulur P, Nelli A. Preoperative optimization of chronic pain patients undergoing surgery. *Techniques in Orthopaedics*. 2020; 35:19-24.

Gulur P, Nelli A. The opioid-tolerant patient: Opioid optimization. *J Arthroplasty*. 2020 Jan 10 PMID: 32014381.



44% reduction in opioids used at 90 days after surgery compared to first preoperative appointment



Integrated Pain and Wellness

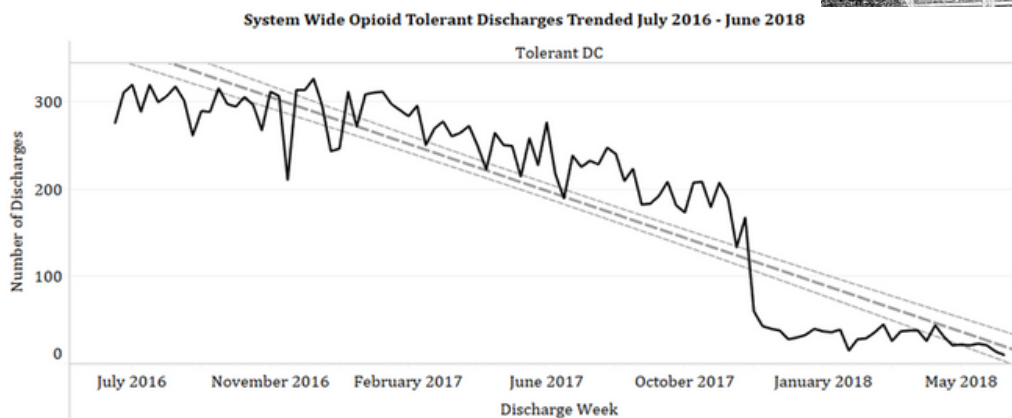
A Population Health Approach

As in healthcare, for pain management a small percentage of patients utilize the majority of healthcare resources and have poor outcomes. At Duke Health, we have initiated the nations first program to help identify patients at risk for poor pain outcomes early and provide them with the specialized care pathways through optimization and personalized wellness plans that will help improve their outcomes and allow them to recover and reintegrate into standard care.

STOP ACT: IMPACT OF LEGISLATION ON OPIOID PRESCRIBING

This study was presented at
Anesthesiology 2019.

TO HELP ADDRESS THE PRESCRIPTION OPIOID EPIDEMIC, NORTH CAROLINA PASSED THE STRENGTHEN OPIOID MISUSE PREVENTION (STOP) ACT IN 2017. WE EVALUATED THE EFFECTS OF THIS LAW ON OPIOID PRESCRIBING PATTERNS AT DUKE UNIVERSITY HEALTH SYSTEMS.





IMPACT OF CHRONIC PAIN AND PRESCRIPTION OPIOIDS

50M AMERICANS IN
CHRONIC PAIN

20M IN HIGH IMPACT
CHRONIC PAIN

10M MISUSED
PRESCRIPTION
OPIOIDS IN 2018

CDC analyzed 2016 National Health Interview Survey (NHIS) data and found an estimated 20.4% (50.0 million) of U.S. adults had chronic pain and 8.0% of U.S. adults (19.6 million) had high-impact chronic pain, with higher prevalence of both chronic pain and high-impact chronic pain reported among women, older adults, previously but not currently employed adults, adults living in poverty, adults with public health insurance, and rural residents..

The 2019 National survey on Drug use and health found that 10.3 million Americans reported misusing prescription opioids in 2018.



SUPPORT PAIN AND OPIOID RESEARCH

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