FALL 2022 PILOT Awardees
Synopsis of Project:
The provision of obstetric emergency care has long been complicated by an uncertain legal environment including ambiguity about restrictions relating to pregnancy termination; this uncertainty about legal constraints may result in clinical repercussions that could limit access to care for a broad spectrum of conditions, not just those that are explicitly prohibited. To understand the impact of this uncertain legal environment, this pilot study will characterize and define obstetric emergencies, use that definition to document variation in the management of, morbidity related to, and mortality resulting from treatment of obstetric emergencies, and to evaluate the federal regulatory response to sub-standard obstetric emergency care.
Title of Project: The Neuroscience and Engineering of Ocean Wave Surfing as a Therapy for Chronic Pain

Synopsis of Project:
In this project we are investigating how the immersive physical activity of ocean surfing can help to improve neural function in individuals with chronic overlapping pain conditions. Additionally, we are engineering a virtual reality surfing system to both better study surfing in a laboratory environment as well as to create a means of expanding access to this activity.

Jason James Kutch, PhD (Co-PI)
Title/s:
- Associate Professor of Biokinesiology and Physical Therapy
Dept:
Biokinesiology and Physical Therapy

James Finley, PhD (Co-PI)
Title/s:
- Associate Professor of Biokinesiology and Physical Therapy
Dept:
Biokinesiology and Physical Therapy

Heather Culbertson, PhD (Co-PI)
Title/s:
- WiSE Gabilan Assistant Professor
- Assistant Professor of Computer Science and Aerospace and Mechanical Engineering
Dept:
Viterbi School of Engineering


**STANDARD Awardees**

**Julie A. Cederbaum, PhD**

Title/s: Associate Professor of Social Work  
Dept: Social Work  
Title of Project: Support in the transition to adulthood for youth in foster care  
Synopsis of Project: It is well documented that compared to their non-system involved peers, transition age youth aging out of the foster care system have poorer outcomes in the domains of education attainment, housing stability, employment, criminal justice involvement, and mental health and substance use challenges. This pilot project, a partnership between USC Dworak-Peck School of Social Work and Children’s Institute, Inc., seeks to better meet the needs of foster youth in independent living skills programs (ILS), though understanding the profiles of youth who are currently participating or have participated in an ILS program, and the benefits of service engagement and youths’ remaining perceived needs.

**Fumito Ito, MD, PhD**

Title/s: Associate Professor of Oncology  
Dept: Surgery  
Title of Project: Early on-treatment blood-based biomarkers for prediction of response to immunotherapy in melanoma  
Synopsis of Project: Current approaches to immune checkpoint inhibitor therapy is limited by the lack of reliable blood-based biomarker to identify responders and non-responders in early on-treatment. This study will investigate the role of T cells producing IL-6 as a biomarker to predict response to immunotherapy in patients with melanoma.

**Steven Yale Sussman, PhD**

Title/s: Professor of Population and Public Health Sciences  
Dept: Population and Public Health Sciences  
Title of Project: Interviews of treatment providers from among the Newsweek America’s Best Treatment Centers regarding the breadth of treatment offered  
Synopsis of Project: A recent study indicated that only 20% of US model alcohol, tobacco, and other drug (ATOD) use treatment centers mention the need for treatment for behavioral addictions as well as substances on their websites (Sussman et al., 2023). The current pilot study will interview personnel from these treatment centers to find out if behavioral addictions are discussed or treated through more informal channels (not on the website). Ultimately, we hope to develop an education or treatment package that can enhance ATOD patients’ quality of life by addressing concurrent difficulties with behavioral addictions.

**Benjamin Xu, MD, PhD**

Title/s: Assistant Professor of Clinical Ophthalmology and Director of Inpatient Ophthalmology Service  
Dept: Ophthalmology  
Title of Project: Role of In Vivo Ultrasound Elastography Measurements of Human Ocular Tissue Stiffness in Glaucoma  
Synopsis of Project: We propose to study the role of ocular tissue biomechanics in the pathogenesis of glaucoma, a leading cause of permanent vision loss worldwide. We will measure ocular tissue properties of patients with and without glaucoma using ultrasound elastography, a novel technology for non-invasive ocular imaging.