



The UCLA Clinical and Translational Science Institute - Research Associates Program:

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Abstract:

The UCLA CTSI Research Associates Program (CTSI-RAP) aims to provide undergraduate UCLA students with the opportunity to gain exposure to hospital based medicine as well as clinical research. The program is designed to build a stronger support infrastructure for the research initiatives of UCLA faculty physicians and investigators by engaging undergraduate students in scientific research and kindling their interest in biomedical research. Research associates play a key role in the implementation of research protocols in which they are involved and are given the opportunity to assist primary investigators with various aspects of their project including, but not limited to, conducting clinical research studies, collecting securitized data, assisting in the authorship of research protocols, and co-authoring abstracts, posters, and papers. The unique blend of first-hand clinical experience and scientific research will give CTSI-RAP alumni a unique advantage in public healthcare in the future.

CTSI Research Advisor:

Laurie Ann Shaker-Irwin, Ph.D., M.S.

2015-2016 CTSI Members:

Cao, Quang • Dey, Ipsita • Dickson, Crystal • Ho, David • Iqbal, Kashif • Jiang, Kelsey • Jones, Adrian • Kanji, Sne • Lam, Harrison • Liang, Michelle • Lu, Mimi • Mohindra, Rohit • Ng, Cassia • Nguyen, Dzung Maria • Ong, Stephanie • Onggo, Stevyndennis • Patel, Shreya • Sheu, Katherine • So, Joshua • Wang, Zoey • Yao, Douglas • Zhang, Lily

Copper Touch

PI: Dr. Daniel Uslan

Background:

Health care-associated infections (HAIs) are among the most serious adverse events in healthcare. As the number of new effective antimicrobial agents declines and treatment of HAIs becomes increasingly difficult, hospital environments have become reservoirs and vehicles for the spread of nosocomial infections. Studies have shown that copper prevents bacteria growth through contact killing, a mechanism where bacteria undergo membrane rupture and cell damage upon exposure to copper.

CTSI-RAP Involvement:

The study is performed in selected ICU rooms on the 4th and the 8th floors of the Ronald Reagan Medical Center. Experimental assets contains active copper ingredient while sham assets do not. CTSI-RAP students screen all assets on 4th and 8th floor ICU rooms twice a day and our goal is to monitor the asset movement and remain aware of patients transfers, procedures, and new admits.

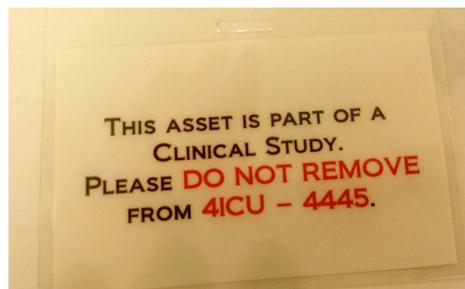


Figure 1: Tag on an asset indicating room



Figure 2: Assets coated with copper/sham stainless steel

Pelvic Prolapse Repair

PI: Dr. Seth A. Cohen

Background:

Pelvic Organ Prolapse is a medical condition that occurs when the muscles that hold pelvic organs such as the bladder and uterus in place become weakened, causing these organs to drop from their ordinary position. This study is designed to assess the effectiveness of Cystocele Repair using a segment of autologous iliotal band in patients with pelvic organ prolapse who have suffered complications or poor results from standard treatments. For this surgery, a graft from the thigh muscle is used to repair the vaginal wall and secure prolapsed organs in their proper positions.

CTSI-RAP Involvement:

This technique holds great promise and data is currently being gathered from patients who have undergone this procedure through questionnaires. Information from the questionnaires will be used to compare their quality of life and determine its efficacy in improving health outcomes. The final goal of the study is to use the collected data to find ways to further improve this technique and the care given to future patients.

Polycystic Ovarian Syndrome (PCOS)

PI: Dr. Daniel Dumesic

Background:

Polycystic Ovary Syndrome (PCOS) is an endocrine system disorder caused by hormone imbalance resulting in enlarged ovaries filled with small collections of fluid. Symptoms include irregular menstrual cycles, pelvic pain, and infertility, and associated long-term complications are Type II diabetes, heart disease, and endometrial cancer. The purpose of this research study is to identify changes that take place in the body that result in PCOS by collecting specimen samples and medical information from women with or without PCOS.

CTSI Involvement:

CTSI - RAP students function as clinical study coordinator assistants within the PCOS study. Students conduct patient screenings to determine study eligibility for prospective participants, audit and maintain patient files, optimize and conduct study participant recruitment strategies, and observe and scribe for PCOS study medical procedures.

Additional Ongoing Projects

Carotid Flow in Shock, PI: Igor Barjaktarevic, M.D., M.Sc.
Actigraphy, PI: Biren Kamdar, M.D., MBA, MHS

BrainSPORT

PI: Dr. Christopher Giza

Background:

Mild traumatic brain injury (mTBI) and sport-related concussion (SRC) are major public health problems. The UCLA Steve Tisch BrainSPORT program aims to utilize clinical care, education, and research to address the true natural history of clinical and physiological recovery of SRC, which has critical implications for improving safety, injury prevention, and medical care in athletes and military personnel.

CTSI-RAP Involvement:

Alongside the BrainSPORT multidisciplinary team, CTSI students are trained to assist with obtaining baseline concussion information from collegiate athletes and children. These tests include a Standard Assessment of Concussion (SAC), Weschler Test of Adult Reading (WTAR), reaction time test, balance error scoring system (BESS), and many others.



Figure 1. Dr. Meeryo Choe performing a baseline concussion assesment



Figure 2. Demonstration of the reaction time test technique