

Innovation Spotlight

Surgical Innovations Fellow Wins UCSF Benioff Children's Gold Award



Second year fellow at Surgical Innovations Biodevice Innovation training, Vamsi Aribindi, MD, surgical resident from Baylor College of Medicine, Houston, TX, won the UCSF Benioff Children's Hospital's Gold Award at the UCSF Stanford Pediatric Device Consortium Annual Accelerator Shark Tank 2020. Dr. Aribindi presented an innovative catheter idea to prevent central line associated blood stream infections.

Electrified Catheters to Prevent CLABSI

Vamsi Aribindi, MD, Biodevice Innovation Fellow, UCSF

Central line associated blood stream infections (CLABSIs) are healthcare associated infections which add billions of dollars in costs and claim many lives every year. In certain pediatric patients, particularly those with short gut syndrome or who are on dialysis, their life expectancy is determined by how few CLABSIs they get- every infection removes an access site for a central line which provides lifesaving nutrition or dialysis. Inspired by technology in marine engineering and by recent work, our project seeks to use electrified catheters to prevent CLABSIs far more effectively than current solutions. We are testing our technology in a basic science lab environment and look forward to proving its efficacy and then beginning animal trials, followed by eventual human use.

Meeting Calendar

INNOVATORS FORUM: Tuesdays, 4-5pm, Virtual Meetings

- 5/5 RespiraWorks Open Source Ventilator; Ethan Chaleff, PhD and Neel Shah, MD; RespiraWorks
- 5/12 NeoTune: a tuneable non-invasive high frequency ventilation (NIHFV) device; Yao Sun MD, PhD and Kaelan Schorger BS; UCSF
- 5/19 Can 3d printing really save the world? Alexis Dang, MD; Orthopedic surgery, UCSF
- 5/26 Cocoon; Kiana Afshar and Bria Bailey; UC Berkeley

Announcements

Congratulations to three surgical residents on completing the Biodevice Innovation Fellowship!

Biodevice Innovation fellows **Phillip Kim, MD, MBA** (Columbia University), **Rebecca Gologorsky, MD** (University of California, San Francisco) and **Vamsi Aribindi, MD** (Baylor College of Medicine) share their perspectives on the UCSF Surgical Innovation training program, as they successfully complete the research training and return to surgical residency.

"The greatest benefit I've found to working in a bioengineering lab is understanding how medical technology is developed from initial concept to device testing." **Rebecca Gologorsky, MD**





"As a Biodevice Innovation Fellow, I tremendously enjoyed the synergy that comes with bringing engineers and clinicians to problem solve together. From prototyping novel medical devices to implementing pilot studies at the hospital, we fellows have the privilege of working full-time in the lab and the hospital." **Phillip Kim, MD, MBA**

"As a UCSF Surgical Innovations Fellow, I was immersed in an environment that emphasized practical problem solving to improve patient care. These problems and solutions could be anything from process improvements to digital health apps to physical devices and even a basic science project in a wet lab." Vamsi Aribindi, MD



About Surgical Innovations

UCSF Surgical Innovations is an initiative of the **Department of Surgery** in partnership with the **Department of Bioengineering & Therapeutic Sciences** to identify, mentor, and facilitate the translation of novel medical technologies into transformative new devices and treatments to improve patient care. Learn more >>