ACHA 2023 Research Grant Award

Providers Involved: Brynn Connor, MD, ACHD Fellow, ACHD Program at Stanford University and Scott Ceresnak, MD, Director of Pediatric Electrophysiology, Stanford University

Title: ***Leveraging Wearable Technologies for Arrhythmia Detection in Adults with Congenital Heart Disease – The ACHD Apple Watch Study***

Heart rhythm abnormalities are a common problem and a leading cause of death in adults with congenital heart disease (ACHD). Early detection and characterization of arrhythmias can be important to develop effective treatment strategies in this unique population of patients. While there is some data on the use of wearable technologies and the Apple Watch® in adults, there is very little data on the utility of this technology in the ACHD population.

With this investigation we aim identify the accuracy of Apple Watch tracings in ACHD patients, determine if the Apple Watch can detect more clinically important arrhythmias than standard monitoring tools, and to develop a user-friendly smartphone application specifically geared for ACHD patients that can revolutionize arrhythmia care for this population.

The application tool would gather all arrhythmia related data and enable real-time clinician access to recorded data via a web-based, easy to use clinician interface. The ultimate goal would be to enable this application and web-based tool to be universally accessible and utilized by ACHD patients and providers around the world to more effectively identify arrhythmias in this unique population.