

2020 TIBBETTS AWARD WINNER

# QT Medical, Inc.



U.S. Small Business Administration



SBIR · STTR  
America's Seed Fund  
POWERED BY SBA

**Frustrated with the impracticality of conducting ECGs on his youngest patients, pediatric cardiologist Dr. Chang founded QT Medical to create a new system that has since identified countless cardiac conditions, from newborns to adults - not only enabling early treatment, but empowering at-home care.**

## LOCATION

**CA**

**Diamond Bar**

## PHASE III SUCCESS

**\$8.5M**

## FUNDING AGENCIES

**HHS**

Department of Health and Human Services

## Impact & Achievement

What is Long QT Syndrome? In the U.S., 2,000 babies are born with this little-known but potentially fatal genetic cardiac condition - 300 of whom die in their first few months of life as a result of this disease that can be detected via what should be a simple electrocardiogram (ECG).

As a pediatric cardiologist, Dr. Ruey-Kang Chang was frustrated by how difficult it was to actually conduct ECGs on babies – what should be an uncomplicated testing procedure, was anything but. As a result, Dr. Chang began designing and testing QT ECG, a new system for babies that can detect Long QT early and enable access to proper treatment. QT ECG is a hospital-quality 12-lead ECG device cleared by the Food and Drug Administration (FDA) for home-use cardiac self-monitoring under a physician's guidance. QT ECG is a complete ECG platform that includes both the device components as well as apps for smart devices, preliminary computer interpretation, and Health Insurance Portability and Accountability Act (HIPAA)-compliant cloud data storage and management.

Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) funding from the National Institutes of Health (NIH) played a crucial role in the success of QT Medical's technology - not only to bring in the funding, expertise, and validation, but also the connections and partnerships needed to commercialize the QT ECG – a technology that the company would not have been able to advance without SBIR/STTR funding. As a result, QT Medical was able to quickly develop the system and conduct a clinical trial that included over 2,500 newborn babies - several of whom were found to have heart disease, including one with Long QT Syndrome. The company received FDA clearance for use in adults in 2018, and anticipates pediatric clearance imminently. Founded in 2013 with a staff of 9, QT Medical has grown to two office locations with over 30 employees. QT ECG is currently in use in commercial airlines, telehealth practices, pharmaceutical trials, and employee health. QT Medical further plans to offer QT ECG to pediatrician offices, as well as to school districts for use in screening student athletes potentially affected by unknown cardiac disorders.

Thanks to QT Medical, many Americans – 6+ million with chronic heart failure, 10+ million with arrhythmias and coronary artery disease, as well as the thousands of babies born with cardiac conditions and Long QT Syndrome – will be empowered with the tools needed to take care of their heart disease at home.

<https://www.qtmedical.com>