

AccuQT

– Accurate correction for QT interval in ECG analysis

In the electrocardiogram (ECG), the QT interval is an essential variable in assessing cardiac health. The problem in the clinical interpretation of the QT interval is its complex dependence on the heart rate. Hence, this dependence must be computationally corrected. The present correction formulas in the market are simple approximations that often produce erroneous results, leading to unnecessary examinations and wrong diagnoses.

We have discovered the exact dynamic dependence between the QT intervals and the heart rate. Based on this scientific discovery we have developed a patented method, AccuQT, which computes the corrected QT intervals precisely and without any models or approximations. The AccuQT method can be readily implemented to existing ECG devices, or it can be used through a cloud interface. The method has huge potential in cardiotoxicity tests in pharmacological development. In this project we develop our innovation to a clinical solution ready for commercialization.

COMPETITIVE ADVANTAGE

- AccuQT is unique and independent of models or approximations
- The optimal solution for clinical practice
- Suitable for the complete path of drug development including pre-clinical and clinical phases – huge savings for the pharmaceutical industries

SEARCHING FOR

- Partnerships with developers
- New networks in medical technologies, especially in cardiological hardware and software, as well as in the pharmaceutical industry
- Input from industrial partners to push our invention to the market

IPR STATUS

- Patent approved in 2020

www.accuqt.com

Project leader

Esa Räsänen,
Professor, Principal Investigator
Tampere University
esa,rasanen@tuni.fi

Team members

Katriina Aalto-Setälä, Clinical development
Rostislav Duda, Software development
Ilya Potapov, Algorithm development
Minna Miettinen, Clinical validation
Matias Kanninen, Clinical validation

SPARK
— FINLAND