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Imaging of Cardiac Electrical Activation

A novel cardiac electrophysiological 3D imaging algorithm.

IP Status: US and EPO Patents Issued. Issued Patent No. 7,841,986 and EP2020914.

Features & Benefits

- 3-dimensional mapping of cardiac electrical activity for pre-surgical and surgical planning
- Reduction in surgery time
- Localization of the origin of cardiac arrhythmia

Technology Overview

Sudden cardiac arrest is the number one killer in the U.S. Over 200,000 cardiac ablations are predicted to be performed in the U.S. by 2010 in order to manage arrhythmia. Currently, cardiac ablation procedures suffer from not being able to specifically site the area of the heart that is causing electrical disturbances that leads to conditions such as cardiac arrhythmia.

This cardiac electrophysiological 3-D imaging technology provides a true 3-D image of the entire myocardium (both internal and external surfaces of the muscular tissue of the heart) to improve identification of electrophysiological disturbance locations. Better localization can improve site specific ablation procedures in smaller areas thereby providing improved outcomes from these procedures.

Phase of Development

Human testing of the cardiac activation imaging algorithm has been performed.

Desired Partnerships

This technology is now available for:

- License
- Sponsored research
- Co-development

Please contact our office to share your business' needs and learn more.

Researchers

- **Bin He, PhD** Professor, Department of Biomedical Engineering

Technology ID

z06090

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