Precision cardiology through autonomous therapeutics

Abstract
The Cardiovascular Bio Digital Twin (CV BioDT) is an up-to-date, patient-specific virtual representation of the CV system that will provide real-time insights into the status of the CV system to inform clinical decision-making and enable better patient care. Ultimately, the CV BioDT will be sufficiently accurate to support autonomous therapeutics.

Features
- Cloud-based modeling and simulation platform
- Provides for patient-specific continuous optimization of drug and device therapies

Application Scenarios
- Autonomous drug delivery for acute myocardial infarction and for acute heart failure
- Virtual clinical trials

Roadmaps
- We will develop both physician-oriented and patient-oriented applications to support precision cardiology while activating patients for self-care. We will begin with acute cardiac conditions.

Collaboration Partners
- The National Cerebral and Cardiovascular Center, Circulatory system research foundation

Exhibitors
- NTT Research, Inc.

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