

MULTISCALE IN-SILICO MODELING OF CARDIOMYOPATHY

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ABSTRACT

Familial cardiomyopathy (FCM) is characterized by enlargement of the heart with increased left ventricular (LV) wall thickness, often with asymmetrical hypertrophy of the septum that separates the LV from the right ventricle (RV), and can lead to outflow obstruction. FCM has been estimated to occur in one in every five hundred adults and is a principle cause of sudden cardiac death (SCD) in athletes and young, healthy people, often from ventricular tachycardia or arrhythmia. The treatment of symptoms of FCM by established therapies could only in part improve the outcome, but novel therapies need to be developed to affect the disease process and time course more fundamentally. This mini-symposium will collect papers for in silico multiscale modeling of FCMs that would take into consideration comprehensive list of patient specific features (genetic, biological, pharmacologic, clinical, imaging and patient specific cellular aspects) in order to predict patient-specific condition from current through the progression of disease [1].

REFERENCES

- [1] www.silicofcm.eu