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MULTISCALE IN-SILICO MODELING OF CARDIOMYOPATHY FROM GENO TYPE TO PHENO TYPE

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ABSTRACT

Familial cardiomyopathies (FCM) are most commonly diagnosed, or progress of the disease is monitored, through in vivo imaging, with either echocardiography or, increasingly, cardiac magnetic resonance imaging (MRI). 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) capable of optimizing and testing medical treatment strategy with the purpose of maximizing positive therapeutic outcome, avoiding adverse effects, avoiding drug interactions, preventing sudden cardiac death, shortening time between the drug treatment commencement and the desired result.