

Supplement 1. Movies depicting the sequential spread of membrane depolarization in a representative FGIN-1-27 treated heart during normal perfusion, 5 min, and 10 min of ischemia. Membrane depolarization is depicted in red, and repolarized myocardium is shown in blue. The wavefront is markedly slowed at 5 min of ischemia compared to control perfusion, and conduction block (i.e. Metabolic sink/block) occurs by 10 min of ischemia in FGIN-1-27 treated hearts.

Supplement 2. Movies depicting the sequential spread of membrane depolarization in a representative untreated control heart during normal perfusion, 5 min, and 10 min of ischemia. Interestingly, the untreated hearts experience less conduction slowing with ischemia and lack of conduction block at 10min of ischemia in comparison to the FGIN-1-27 treated heart.

Supplement 3. Region of metabolic sink/block underlying arrhythmias during reperfusion in a representative FGIN-1-27 pretreated heart. A relatively large area of functional block of electrical propagation presumed to be due to the current sink induced by DY_m depolarization (metabolic block) is present.