**Nuclear isolation protocol**

Approximately 3-10 mg of endomyocardial biopsy (EMB) tissue and 25 mg of explanted myocardium was sectioned at 100 μm to generate ~25 sections (from explanted tissue) or as many as can be obtained (from EMB specimens). All steps were performed on ice. Tissue sections were suspended in cold lysis buffer (250 mM sucrose, 25 mM KCl, 0.05% IGEPAL-630, 3 mM MgCl2, 1 μM DTT, 10 mM Tris pH 8.0, and ddH2O) followed by gentle homogenization with a 7 mL dounce homogenizer. Between the loose and tight piston douncing, the suspension was allowed to incubate on ice for 5-10 minutes. The suspension was then centrifuged at 20g for 1 minute at 4⁰ C to pellet debris. The supernatant was then sequentially filtered through 100 μm and 20 μm filters to further filter out debris. Nuclear wash buffer (PBS, 3 mM MgCl2, add 0.01% BSA) was added and the nuclear suspension was centrifuged at 500g for 5 minutes at 4⁰ C. The pellet was rewashed with nuclear wash buffer (~8 mL) and additional pelleting of nuclei was performed at 500g for 5 minutes at 4⁰ C. The supernatant was removed carefully, without disturbing the pellet. Lastly, 100-500 μL of cold nuclear resuspension buffer (nuclear wash buffer + 0.4 U/μL of murine RNAse inhibitor) was added and mixed gently. Nuclei were counted on a hemocytometer (visualized using propidium iodide) and suspensions were loaded into a 10X Genomics single cell 3’ v3.1 platform.