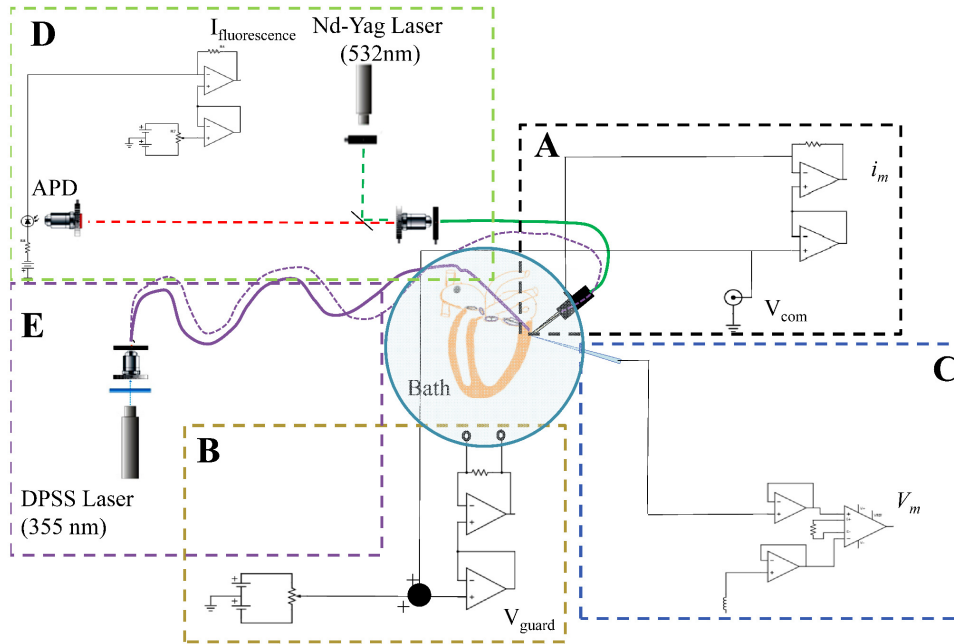


Supplemental Material

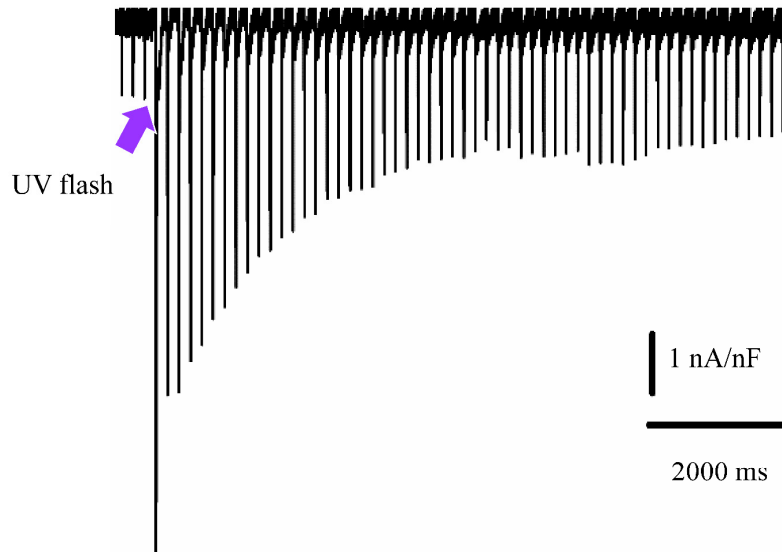
Loose Patch Photolysis setup



Online Figure I

The system is based on three major parts. *First*, a multiple voltage clamp system that allows the clamping of the potential inside the loose patch pipette and measure the membrane current (**A**). A second voltage clamp to voltage clamp surrounding bath (**B**). And **C**, an amplifier to electrically measure the membrane potential. *Second*, a PLFFM to optically record Ca^{2+} transients and APs (**D**). Finally, a flash photolysis system that can photo-break different photosensitive compounds under the loose patch pipette. Photolysis was produced by UV illumination generated by a DPSS UV laser (355 nm). UV light was optomechanically shuttered for 1-50 ms and applied through an external quartz multimode fiberoptic (**E**).

Nifedipine rebinding.



Online Figure II

Effect of nifedipine rebinding after the UV photolytic pulse. As the heart is continuously perfused with a tyrode solution containing nifedipine, the uncaged nifedipine can rebind to DHPR that were previously blocked by nifedipine. (N= 4 hearts)