SUPPLEMENTARY FIGURES

Supplementary Figure S 1. Low power light microscopy of atrial regions of WT, $RyR2^{+/S}$ and $RyR2^{S/S}$ hearts.

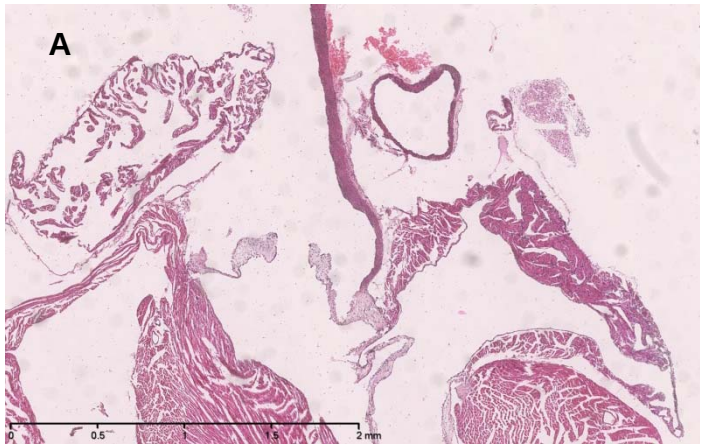
Sections from WT (A, B), $RyR2^{+/S}$ (C, D) and $RyR2^{S/S}$ hearts (E, F) stained with hematoxylin and eosin (A, C, E) or Massons trichrome (B, D, F) showing no detectable structural abnormalities. Hearts of 6-month old mice (WT, $RyR2^{+/S}$ and $RyR2^{S/S}$, n=3 in each group) were excised, following sacrifice by cervical dislocation (Schedule I, UK Animals (Scientific Procedures) Act (1986)). Hearts were perfused and then stored in 4% paraformaldehyde, for routine tissue processing and paraffin embedding. The paraffin blocks were then serially sectioned and stained with hematoxylin and eosin and Massons trichrome for light microscopy.

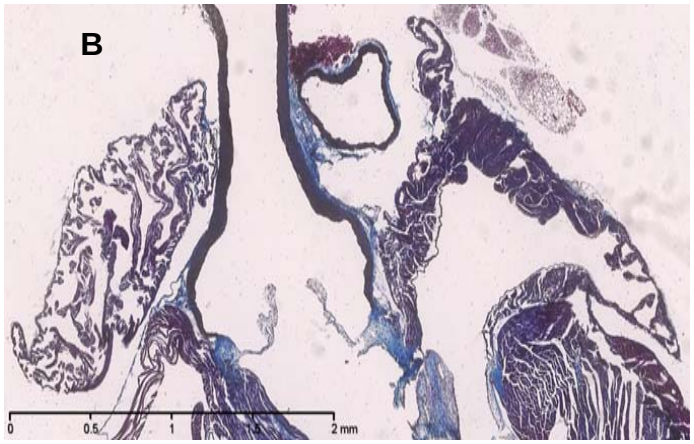
Supplementary Figure S 2. Linescan reconstructions of Ca^{2+} sparks in isolated atrial myocytes under resting conditions.

Typical results from (A, B) WT hearts, (C, D) $RyR2^{+/S}$ and (E, F) $RyR2S^{/S}$ hearts before (A, C, E), and following (B, D, F) addition of isoproterenol.

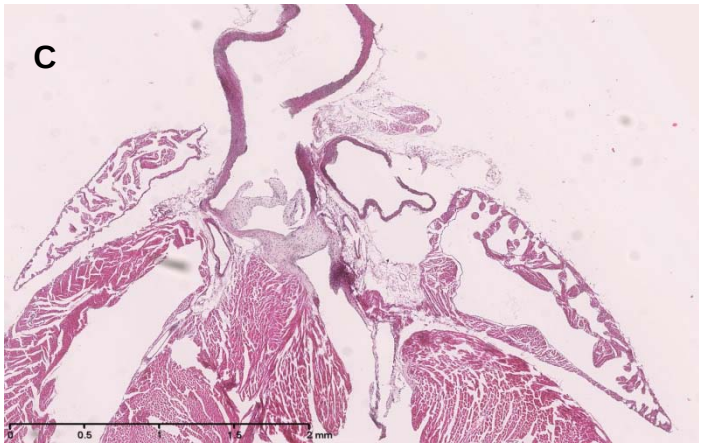
Suppl fig. S1

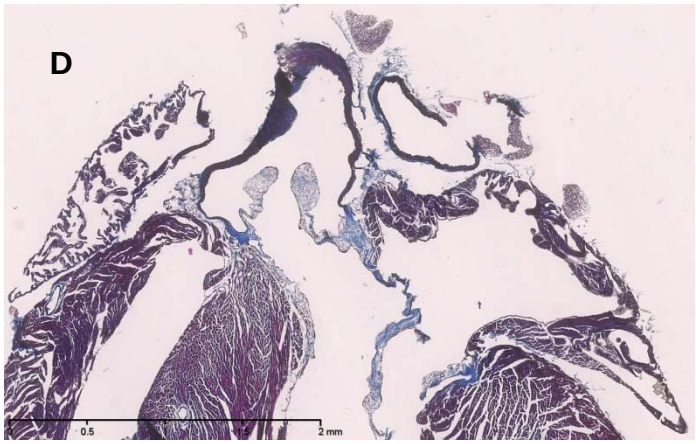
WT



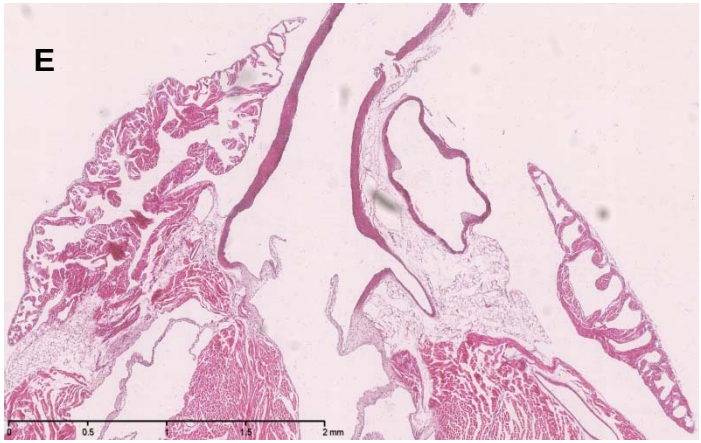


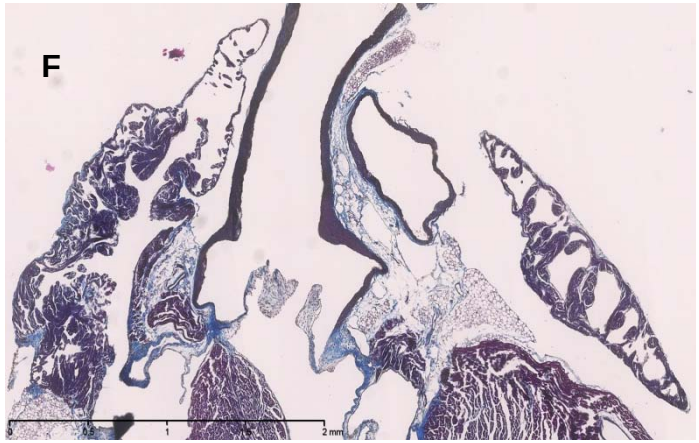
RyR2$^{+/S}$



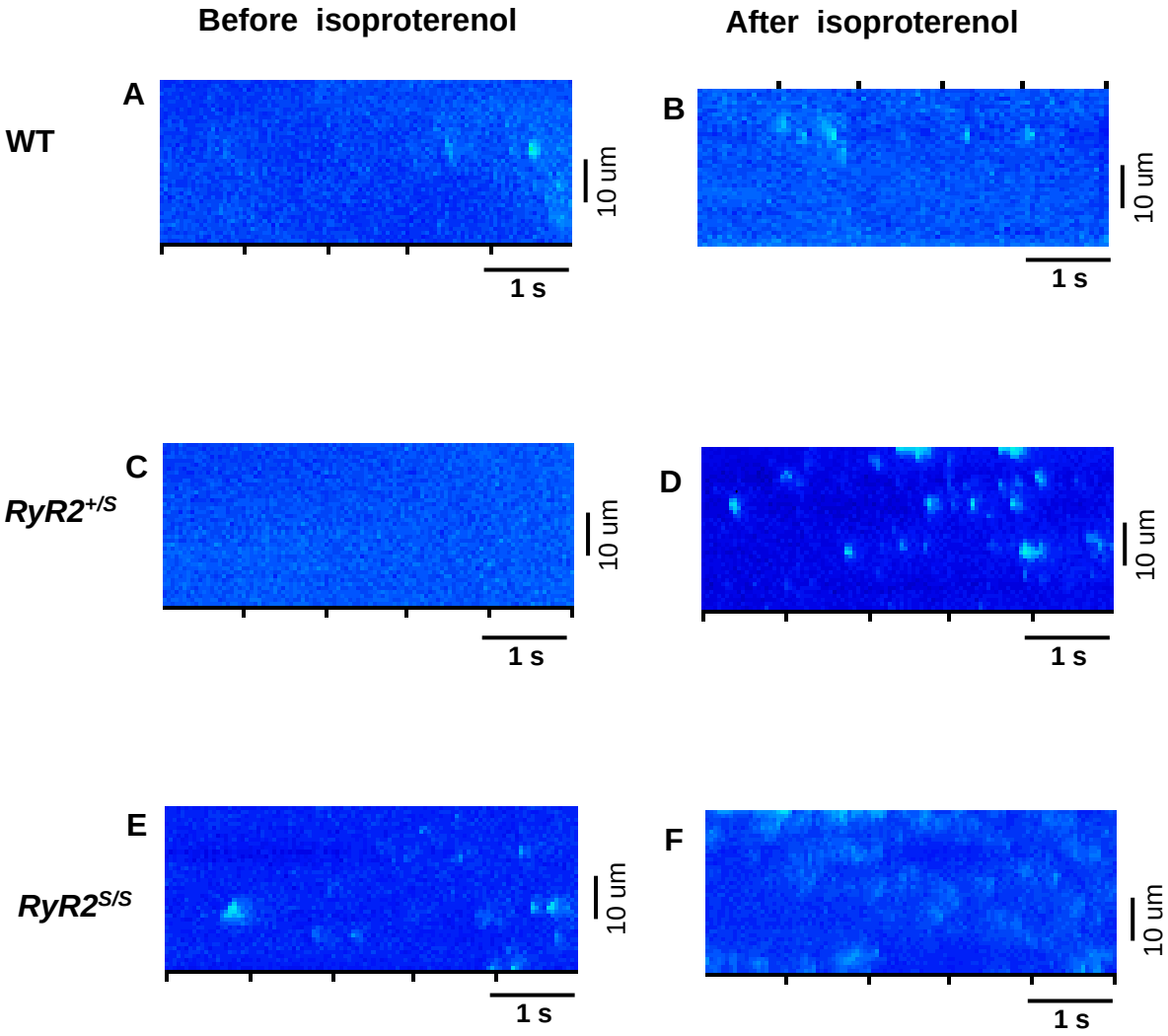


RyR2$^{S/S}$





Suppl fig. S2


Before isoproterenol
After isoproterenol
A
WT
B
10 um
1 s
C
RyR2+/S
D
E
RyR2S/S
F