

Supplemental movie 1:

Spontaneous  $\text{Ca}^{2+}$  release activity in the RyR3-expressing region of a muscle fibre injected with fluo-3. Confocal frames were acquired at a frequency of 1.25 Hz. The side size corresponds to 73  $\mu\text{m}$ .

Supplemental movie 2:

Spontaneous contractile activity in a RyR3-expressing muscle fibre. Sequence of superimposed transmitted light images and confocal GFP-RYR3 fluorescence images acquired at 1.25 Hz. The side size corresponds to 73  $\mu\text{m}$ .