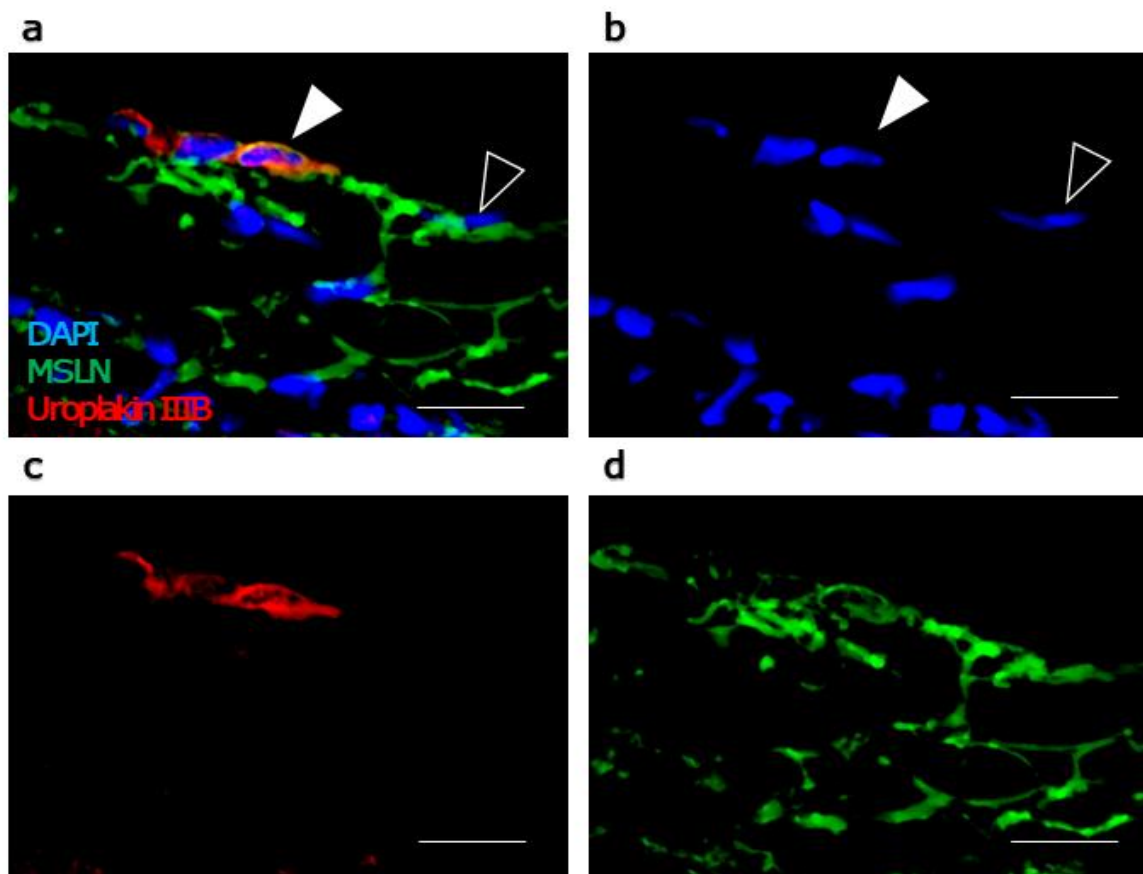


## Supplementary Information

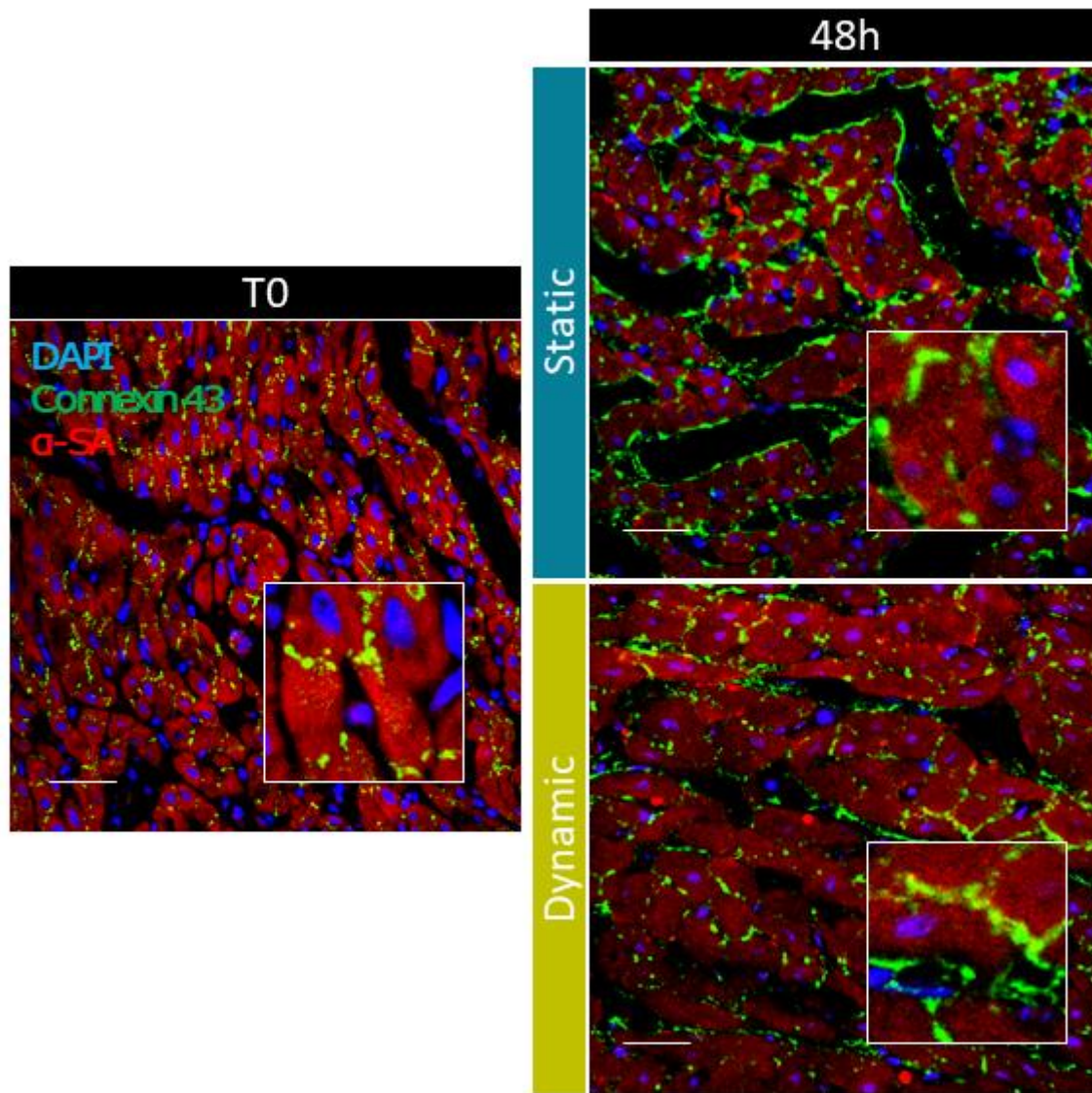
### EPICARDIAL SLICES: AN INNOVATIVE 3D ORGANOTYPIC MODEL TO STUDY EPICARDIAL CELL PHYSIOLOGY AND ACTIVATION

Davide Maselli, Rolando Szilveszter Matos, Robert David Johnson, Ciro Chiappini, Patrizia Camelliti, Paola Campagnolo

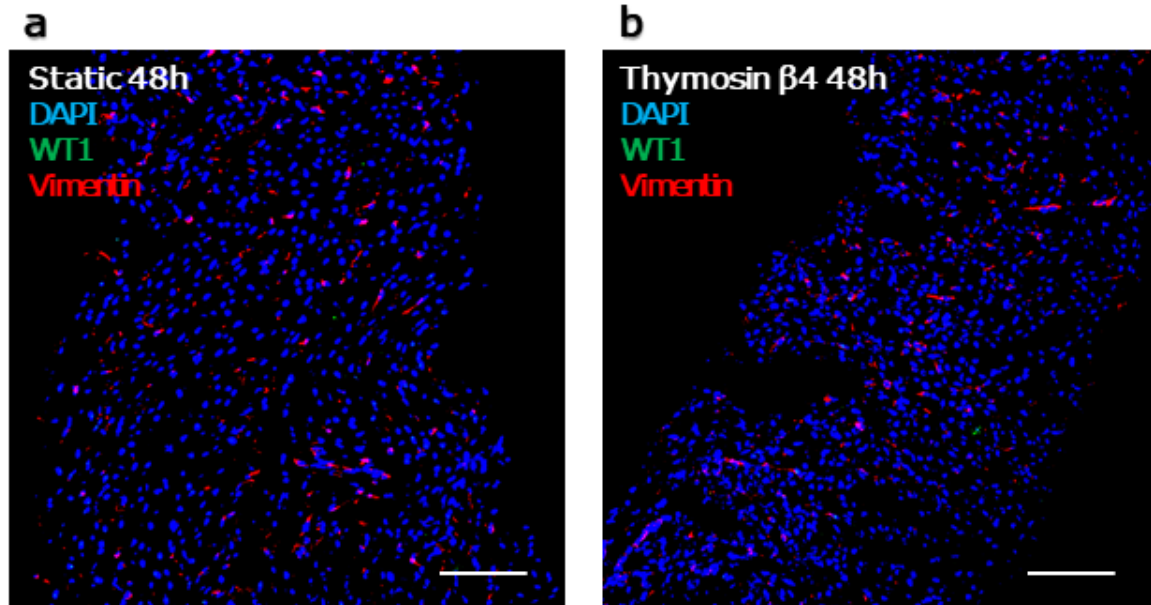
#### Supplementary Figures



**Supplementary Figure 1. Uroplakin IIIB expression in the epicardial layer.** Confocal microscopy analysis of formaldehyde-fixed OCT-embedded porcine epicardial slices showing the merged picture (a), nuclear staining (DAPI, b), expression of the marker Uroplakin IIIB (c) and mesothelin (MSLN, d). Only a subset of mesothelin (MSLN)+ epicardial cells expressed Uroplakin IIIB. White arrowheads indicating Uroplakin IIIB+ /MSLN+ cell, empty arrowhead indicating Uroplakin IIIB- epicardial cell. Scale bars, 20μm.



**Supplementary Figure 2. Sarcomeric structure of myocardium after 48h of culture.** Confocal microscopy analysis of formaldehyde-fixed OCT-embedded porcine epicardial slices showing cardiomyocytes beneath the epicardial layer displaying  $\alpha$ -sarcomeric actin structures and connexin 43 within the gap junctions. Scale bars, 50 $\mu$ m.



**Supplementary Figure 3. Myocardial slices do not contain WT1+ /vimentin+ cells after 48h of culture.** Representative images of WT1/Vimentin double-staining at 48h of static (a) and Tβ4-treated culture of myocardial slices (b). WT1 staining is undetectable in the tissue. Scale bars, 100μm.

**Supplementary Table**

| Gene           | Sequence (5'-3')     |
|----------------|----------------------|
| <i>B2M</i>     | AAACGGAAAGCCAAATTACC |
|                | ATCCACAGCGTTAGGAGTGA |
| <i>WT1</i>     | TGAGCGAAGGTTTTCTCGTT |
|                | GCTGAAGGGCTTTTCACTTG |
| <i>Tbx18</i>   | GGGAGACTTGGATGCGACA  |
|                | GCGGTGACAGTGGTGAAAA  |
| <i>TCF21</i>   | GGAGTGTGAGACCCAACCA  |
|                | AGTCCAGCATCTCCACCTCT |
| <i>Snai1</i>   | TTGCTGACCGCTCCAACCTG |
|                | GGAGCACGTCTTGCACTGGT |
| <i>Snai2</i>   | CGAGCCTACAGCCCCATTGC |
|                | CTTTCGGAGCCGCTGTGGTC |
| <i>TWIST-1</i> | GCCCGTGGACAGTGATTCCC |
|                | AGTGGTGATTGGCACGACC  |

**Supplementary Table 1. List of primers used in this study**