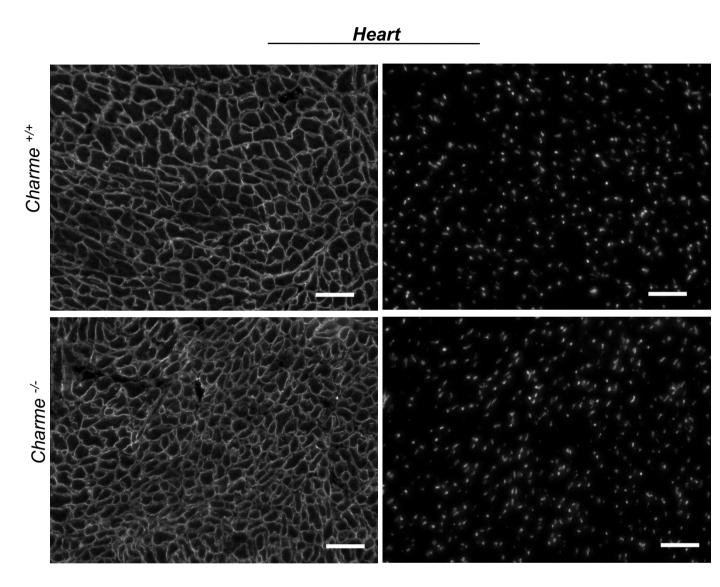
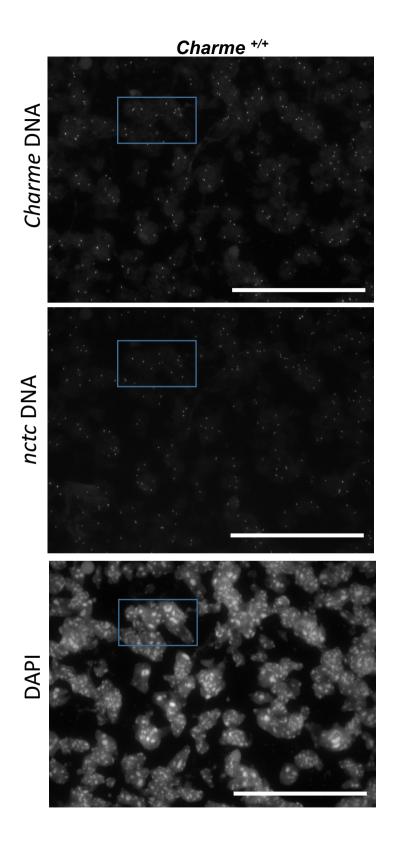
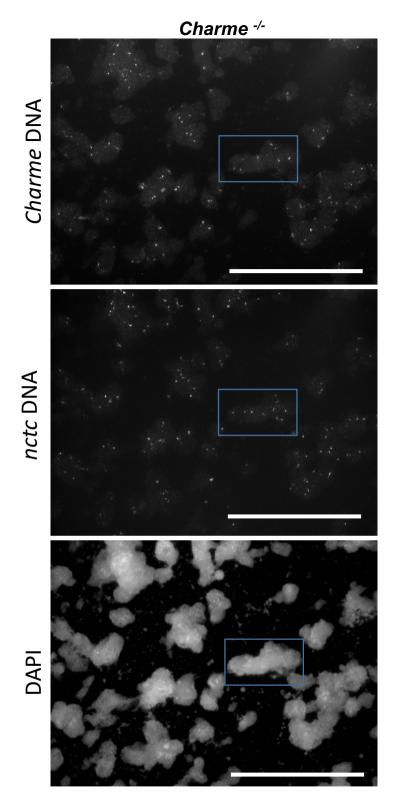
## RAW DATA FIGURE 5 Fig 5



Full size images of immunofluorescence for dystrophin protein and DAPI (4',6-diamidino-2-phenylindole) on *Charme*\*/- and *Charme*\*/- skeletal gastrocnemius and heart biopsies. The images were acquired as 8 bit depth by using a Plan-Neofluar EC  $10 \times /0.3$  M27 (gastrocnemius) or LD  $20 \times /0.4$  Korr (heart) and collected with AxioVision Rel.4.8 software. The entire images were processed in post-acquisition analysis with FIJI software, in contrast and brightness for Dystrophin and DAPI. For both channels, pseudocolor were added and color combine applied. Scale bar =  $100 \, \mu m$ .

Figure 5E





Full size confocal images of DNA/DNA FISH for *Charme* and *nctc* genomic regions and DAPI (4',6-diamidino-2-phenylindole) in *Charme*<sup>+/+</sup> and *Charme*<sup>-/-</sup> neonatal (1 day old) cardiac tissues.

The images were acquired as 16 bit depth with a resolution XY of 0,075 micron, by using a UPLANSApo 60 X oil objective (NA 1.35) and collected with MetaMorph software (Molecular Devices). Stacks of images were taken automatically with 0,2 micron between the Z-slices.

The entire images were processed in post-acquisition analysis with FIJI software:

DNA FISH 16 bit Z-stacks were processed with a Laplacian of Gaussian filter (sigma XYZ 3px) to enhance the spots signal over background and color balance was manually adjusted using MetaMorph or ImageJ softwares setting a reference value considering the without specific staining as a background.

All Z stacks were merged with maximum intensity projection and combine in multicolour image. Blue square: area enlarged in the figure. Scale bar =  $50 \mu m$ .