

Figure 7. *Ex vivo* epicardial regeneration and chamber engraftment. **(a)** Ventricular epicardium regenerates in a base-to-apex direction (arrows). Hearts from *pcf21:NTR*; *pcf21:nucEGFP* adults were incubated with 1 mM Mtz for 24 h. Whole mount images were taken daily. dpi, days post Mtz incubation. **(b)** A freshly collected outflow tract from a *pcf21:nucEGFP* fish (green) was grafted to the base of a ventricle from *pcf21:NTR* fish (red), by 48 h contact in agarose. The ventricle was treated with 1 mM Mtz for 24 h and cultured for 2 more days before engraftment. **(c)** A non-transgenic donor outflow tract (OFT) was transplanted to the base of an epicardially ablated ventricle. Base-to-apex epicardial regeneration (arrows) was observed from host tissue. dpt, days post-transplantation.

Legends for Supplementary Videos

Video 1. Grafting an outflow tract (OFT) to the base of a ventricular explant.

Video 2. Grafting beads to the base of a ventricular explant.