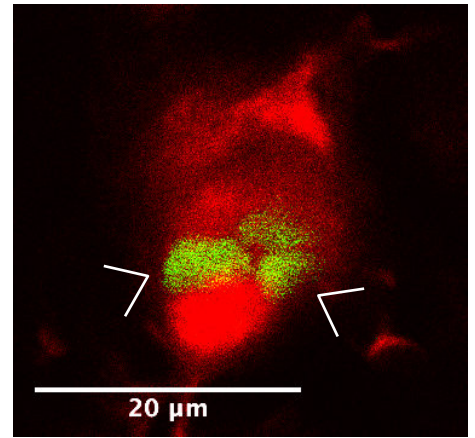
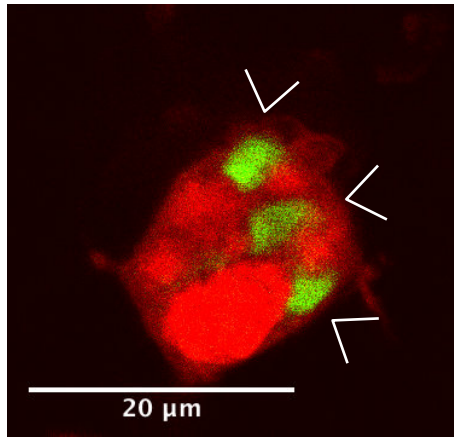
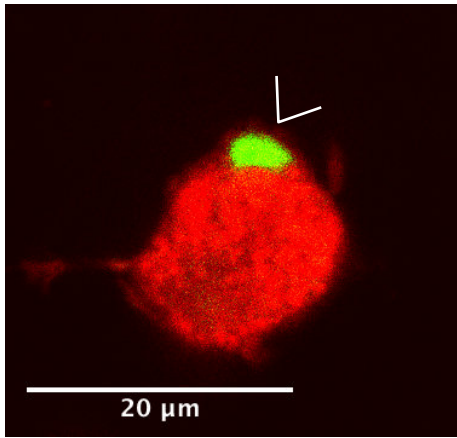


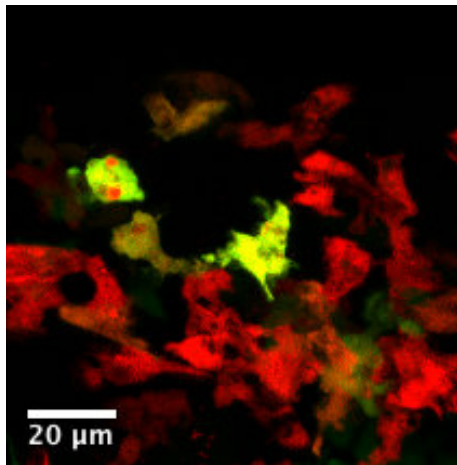
Figure S1: Representative Masson's Trichrome stained transverse sections of pull through, nylon or vicryl sutured fish at 4, 7, 14 and 28 DPS, as indicated. Site of wound or suture indicated with black asterisk. N = 5 independent fish per condition per timepoint. Scale bars = 200 μ m.

A

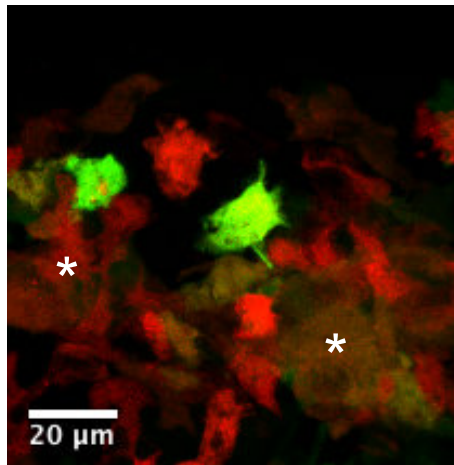


B

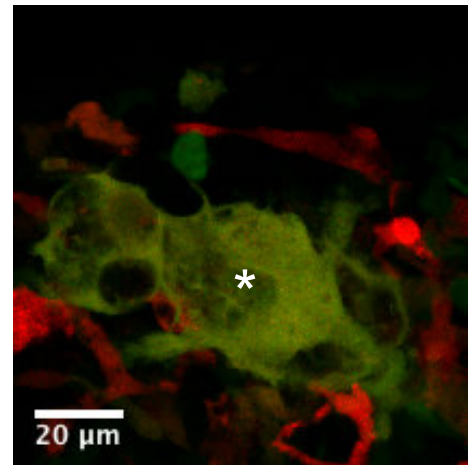
180 minutes post wounding



420 minutes post wounding



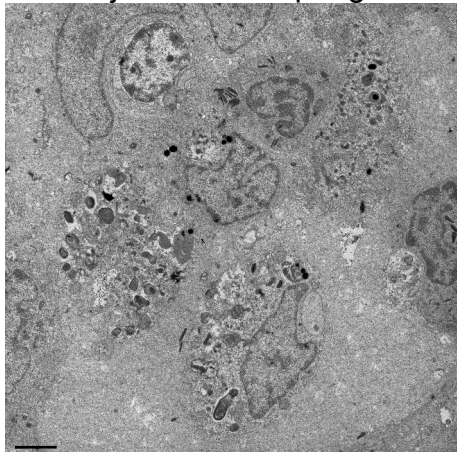
600 minutes post wounding



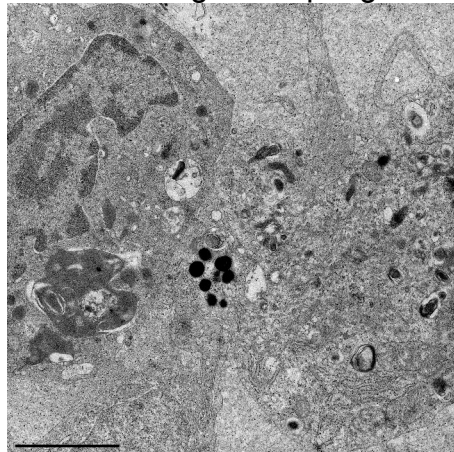
Macrophages tnfa tnfa+ve macrophages

C

Adjacent macrophages



Contacting macrophages



Fusing macrophages

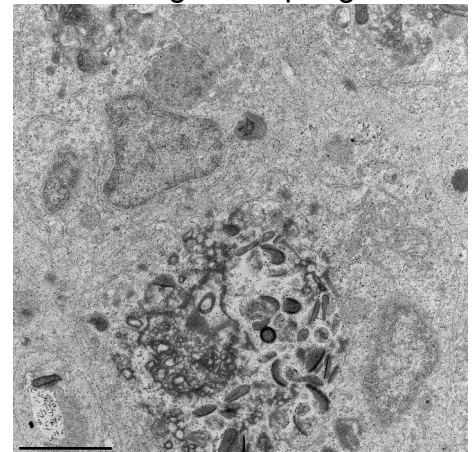


Figure S2: A) Several z-stack images from a single “large” macrophage adjacent to a vicryl suture from the image shown in Figure 2D (boxed area), with arrows indicating multiple nuclei (green) within the cell. B) Several stills from Movie 2, showing macrophages in *Tg(mpeg:mCherry)*; *Tg(tnfa:GFP)* double transgenic larvae prior to, during, and after fusion at 180, 420 and 600 minutes post injury, in response to persistent inflammatory stimulus. Two *tnfa:GFP* positive cells fuse with a number of *tnfa:GFP* negative macrophages and their GFP becomes diluted throughout the newly fused cell. C) TEM images from Figure 2F-H, without dotted lines and other annotations, to allow for unobstructed examination. Scale bars: C = 2 μ m.

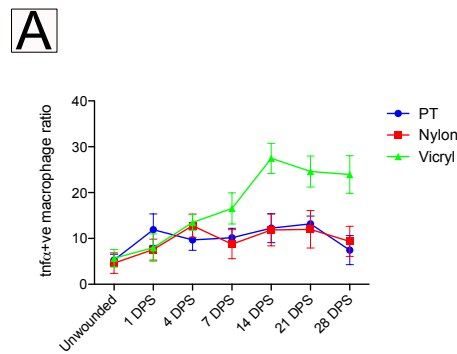
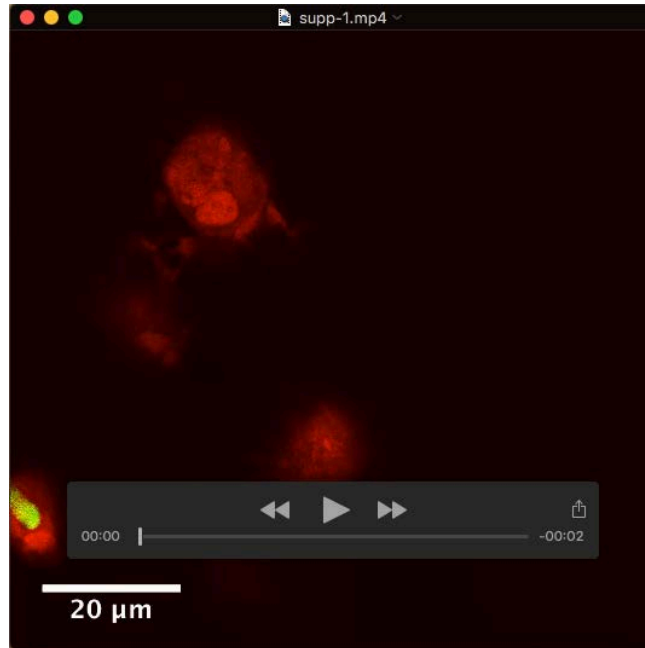


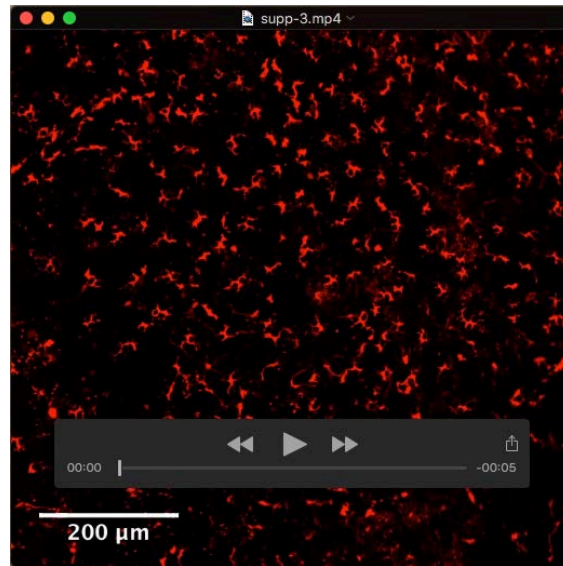
Figure S3: A) Quantification of *tnfa* expressing macrophages as a proportion of total macrophages in the area surrounding the wound/suture, measured from images in Figure 4A.



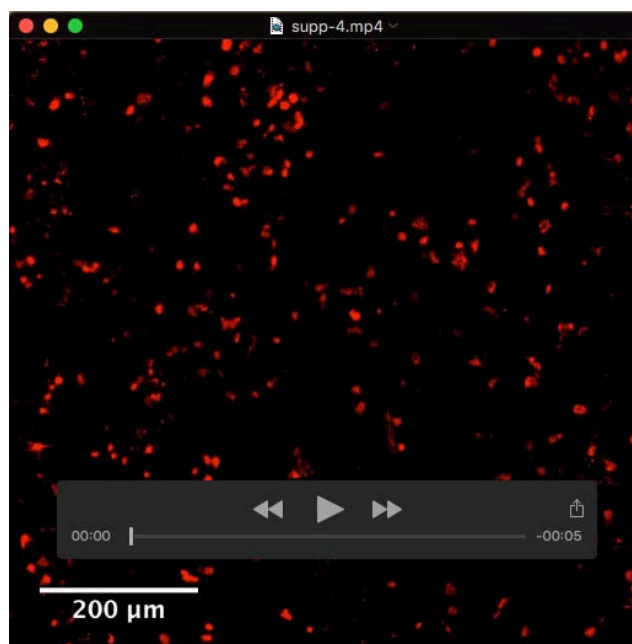
Movie 1: Slice by slice z-stack movie of the cells shown in Figure 2D, identifying numerous macrophages as FBGCs with multiple nuclei. Movie z-step size = 2 μ m, scale bar = 20 μ m.



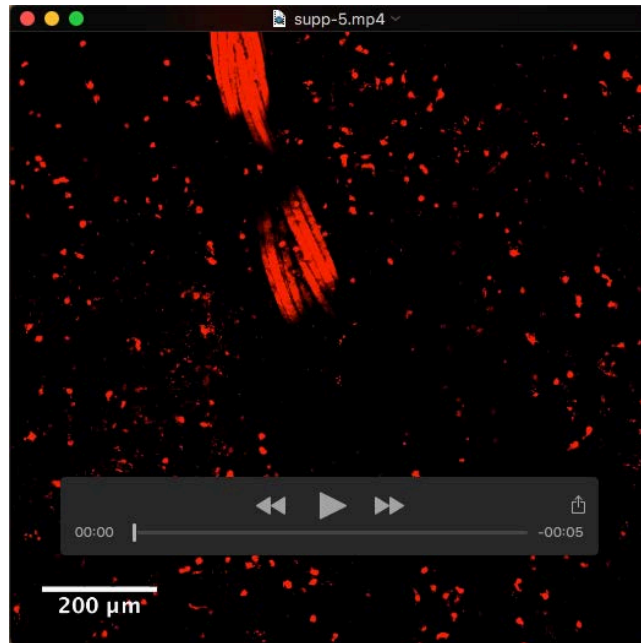
Movie 2: Representative z-projection timelapse movie of the flank of a laterally mounted, wounded Tg(*mpeg:mCherry*); Tg(*tnfa:GFP*) double transgenic, 5 day post fertilisation (dpf) larvae, showing dynamic fusion of macrophages.



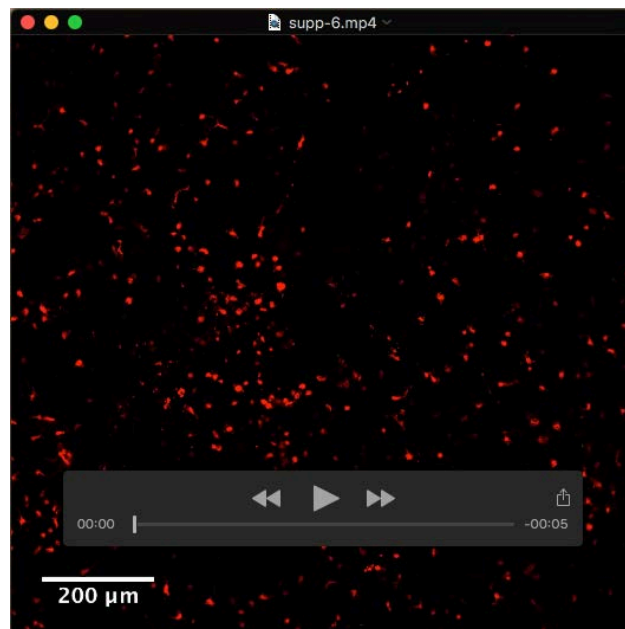
Movie 3: Representative z-projection timelapse movie of the flank of a laterally mounted uninjured Tg(*mpeg:mCherry*) transgenic, showing tracking of macrophage dynamics and 'patrolling' behaviour, imaged every 5 minutes for 180 minutes.



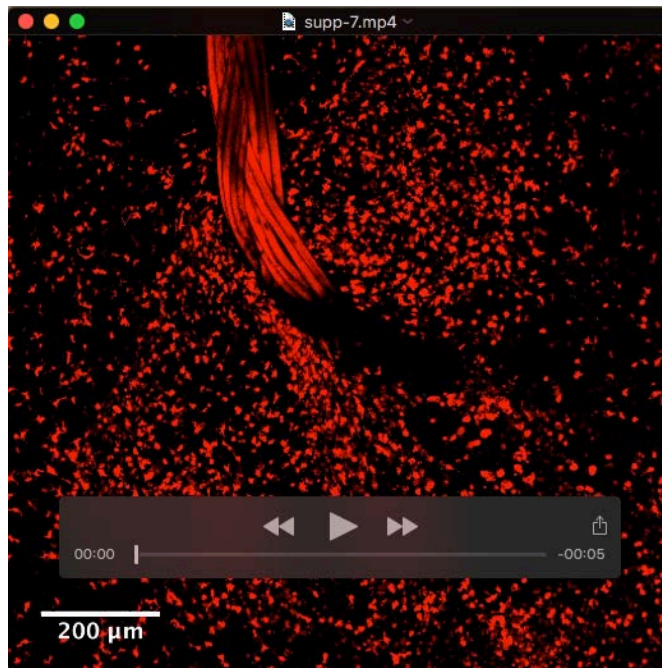
Movie 4: Representative z-projection timelapse movie of the flank of a laterally mounted 'pull through' injured Tg(*mpeg:mCherry*) transgenic at 1DPW, showing tracking of macrophage dynamics, imaged every 5 minutes for 180 minutes.



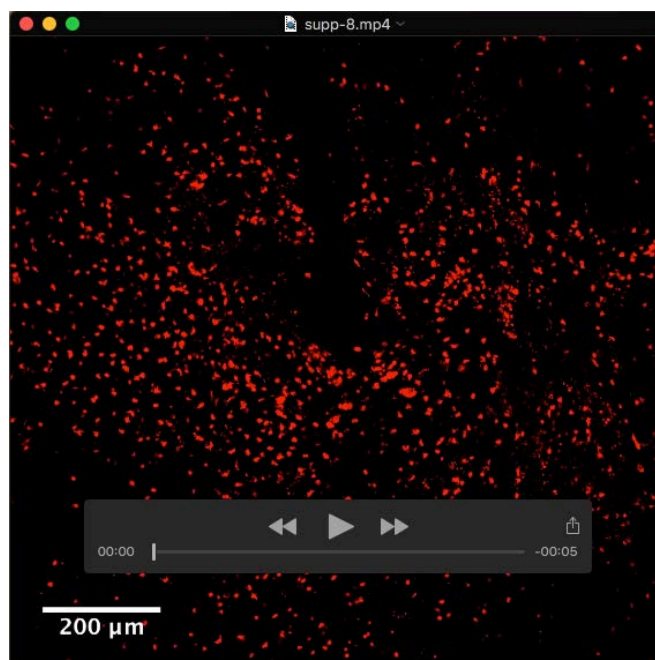
Movie 5: Representative z-projection timelapse movie of the flank of a laterally mounted, vicryl sutured *Tg(mpeg:mCherry)* transgenic, 1DPS, showing tracking of macrophage dynamics, imaged every 5 minutes for 180 minutes.



Movie 6: Representative z-projection timelapse movie of the flank of a laterally mounted, nylon sutured *Tg(mpeg:mCherry)* transgenic, 1DPS, showing tracking of macrophage dynamics, imaged every 5 minutes for 180 minutes.



Movie 7: Representative z-projection timelapse movie of the flank of a laterally mounted, vicryl sutured Tg(*mpeg:mCherry*) transgenic, 28DPS, showing tracking of macrophage dynamics, imaged every 5 minutes for 180 minutes.



Movie 8: Representative z-projection timelapse movie of the flank of a laterally mounted, nylon sutured Tg(*mpeg:mCherry*) transgenic, 28DPS, showing tracking of macrophage dynamics, imaged every 5 minutes for 180 minutes.