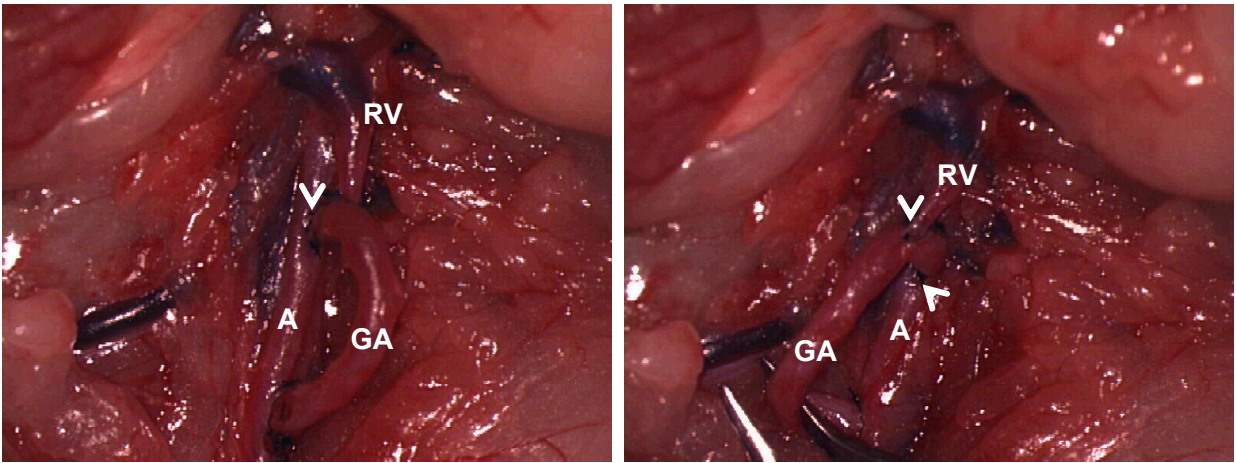


## Supplemental data

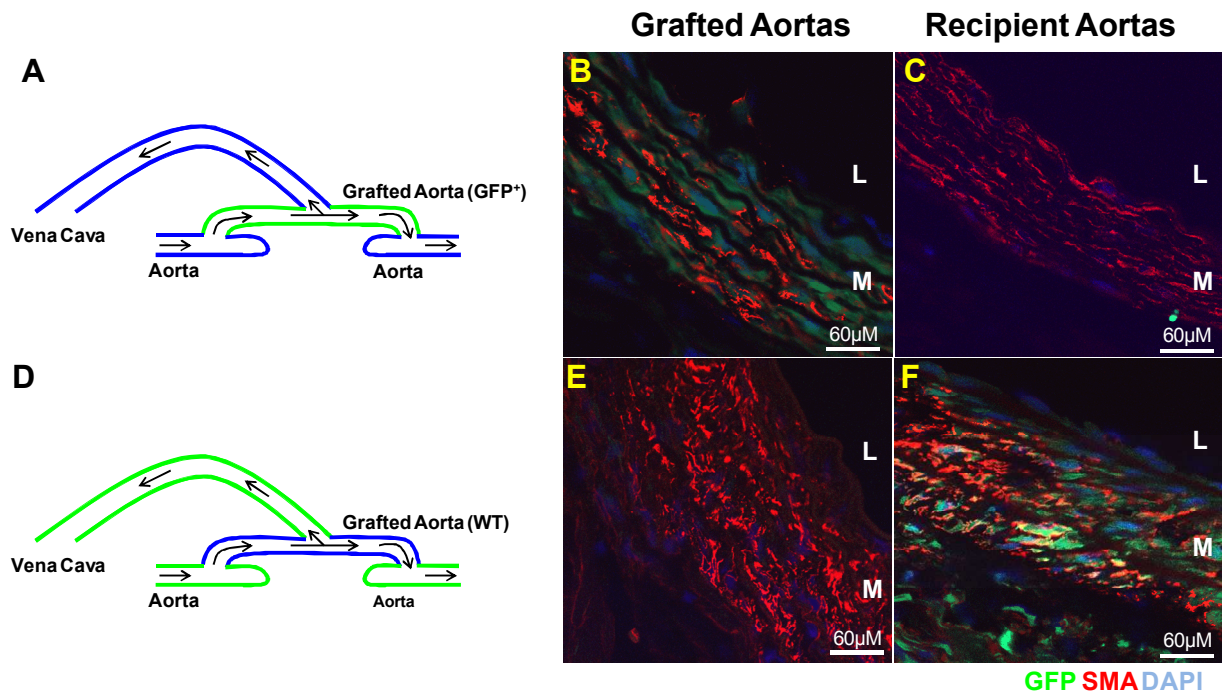
**Table 1.** Frequency of GFP<sup>+</sup> cells in the neointima and adventitia of experimental AVFs\*

	Neointima			Adventitia		
	GFP <sup>+</sup>	GFP <sup>+</sup> SMA <sup>+</sup>	GFP <sup>-</sup> SMA <sup>+</sup>	GFP <sup>+</sup>	GFP <sup>+</sup> SMA <sup>+</sup>	GFP <sup>-</sup> SMA <sup>+</sup>
<b>AVF in Chimeric Rats</b>						
GFP BM into WT #1	70/450	0/450	380/450	345/815	18/815	56/815
GFP BM into WT #2	30/560	2/560	530/560	158/675	0/675	71/675
GFP BM into WT #3	16/350	1/350	334/350	321/514	0/514	18/514
GFP BM into WT #4	21/589	0/589	568/589	71/214	7/214	24/214
GFP BM into WT #5	14/600	2/600	586/600	124/354	1/354	37/354
GFP BM into WT #6	12/470	0/470	458/470	189/426	0/426	61/426
<b>AVF using Aortic Grafts</b>						
GFP Aorta into WT #1	0/346	0/346	340/346	4/1232	0/1232	59/1232
GFP Aorta into WT #2	1/545	0/545	530/545	1/932	0/932	10/932
GFP Aorta into WT #3	0/238	0/238	214/238	0/435	0/435	35/435
GFP Aorta into WT #4	0/445	0/445	440/445	3/638	0/638	23/638
WT Aorta into GFP #1	489/495	473/495	6/495	200/253	23/253	0/253
WT Aorta into GFP #2	110/119	111/119	8/119	213/213	40/213	0/213
WT Aorta into GFP #3	248/252	248/252	4/252	450/450	58/450	0/450
<b>Composite AVF</b>						
GFP Graft #1	293/383	223/363	70/363	240/288	14/288	1/288
GFP Graft #2	563/580	558/580	0/580	312/411	51/411	0/411
GFP Graft #3	350/359	349/359	8/359	240/258	6/258	0/258
WT Vein #1	0/244	0/244	235/244	3/468	0/468	4/468
WT Vein #2	8/483	2/483	465/483	0/235	0/235	21/235
WT Vein #3	6/100	0/100	93/100	2/247	0/247	12/247

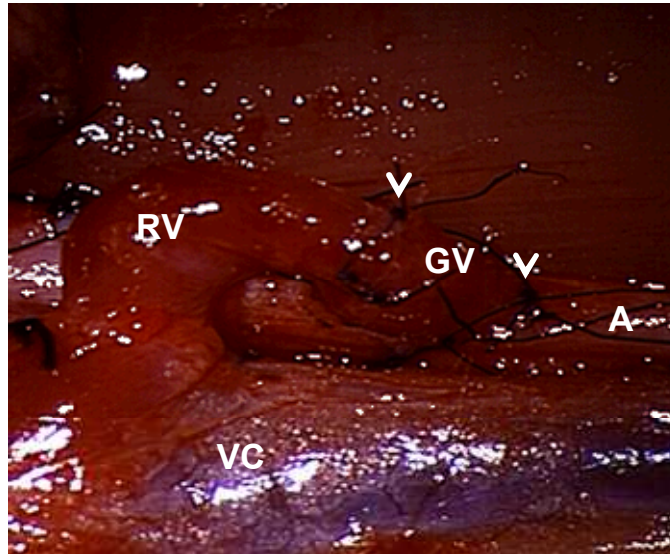
\*Three AV fistula models were used to demonstrate the origin of neointimal cells. Values represent the number of GFP<sup>+</sup>, GFP<sup>+</sup>SMA<sup>+</sup> or GFP<sup>-</sup>SMA<sup>+</sup> cells versus the total number of cells examined in at least four sections from four different location in the fistula.



**Figure I** Microphotographs of a representative fistula created using a GFP aortic graft orthotopically transplanted to a WT rat. Anastomosis points are marked with arrows. **RV** : renal vein; **GA**: GFP aorta (graft); **A**: Aorta.



**Figure II A and D.** Diagrammatic representations of AV fistulas constructed in WT (A) or GFP (D) recipients using previously transplanted GFP (A) or WT (D) arterial limbs, respectively. Grafted and recipient aortas were harvested along the AV fistula, embedded in OCT for cryosectioning and stained with an antibody against smooth muscle actin (SMA, red). **B.** Representative section from the GFP graft. VSMC in the graft expressed the transgene (GFP, green) at the time of sacrificing which confirmed the absence of subclinical anti-GFP immunoreactivity that may hamper the proliferation of graft-derived cells into the recipient vein. **C.** WT recipient aorta. **E and F** Sections from the WT grafted (E) and GFP recipient aortas. SMA positive cells are shown in red, GFP in green and nuclei in blue (DAPI). M: Media; L: Lumen



**Figure III** Microphotography of a composite AV fistula created by interposing the vena cava of a GFP rat between the recipient renal vein and the aorta of a WT recipient. Anastomosis points are marked with arrows. **RV**: renal vein; **GV**: GFP vein (graft); **A**: Aorta and **VC**: vena cava.