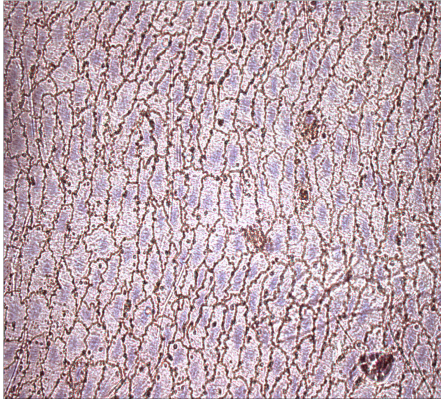
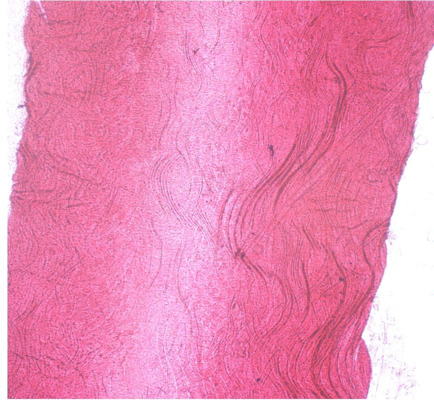
SUPPLEMENT MATERIAL

Supplemental Figure I

A

No-injury | Injury

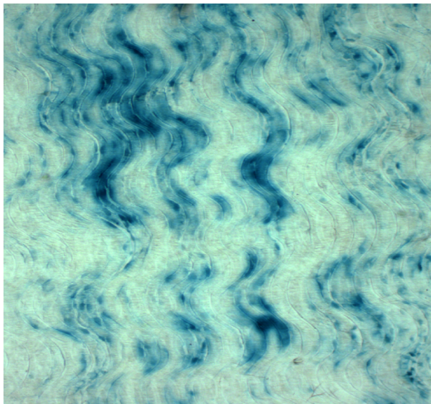


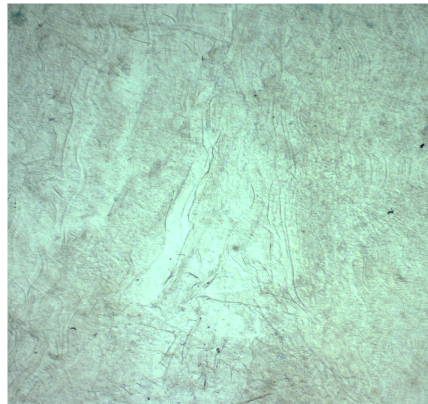


Silver Nitrate

B

No-injury | Injury

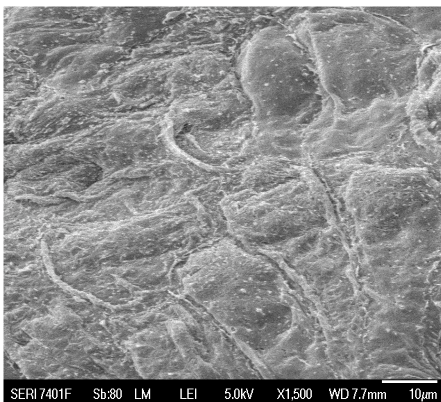




Tie2-LacZ

C

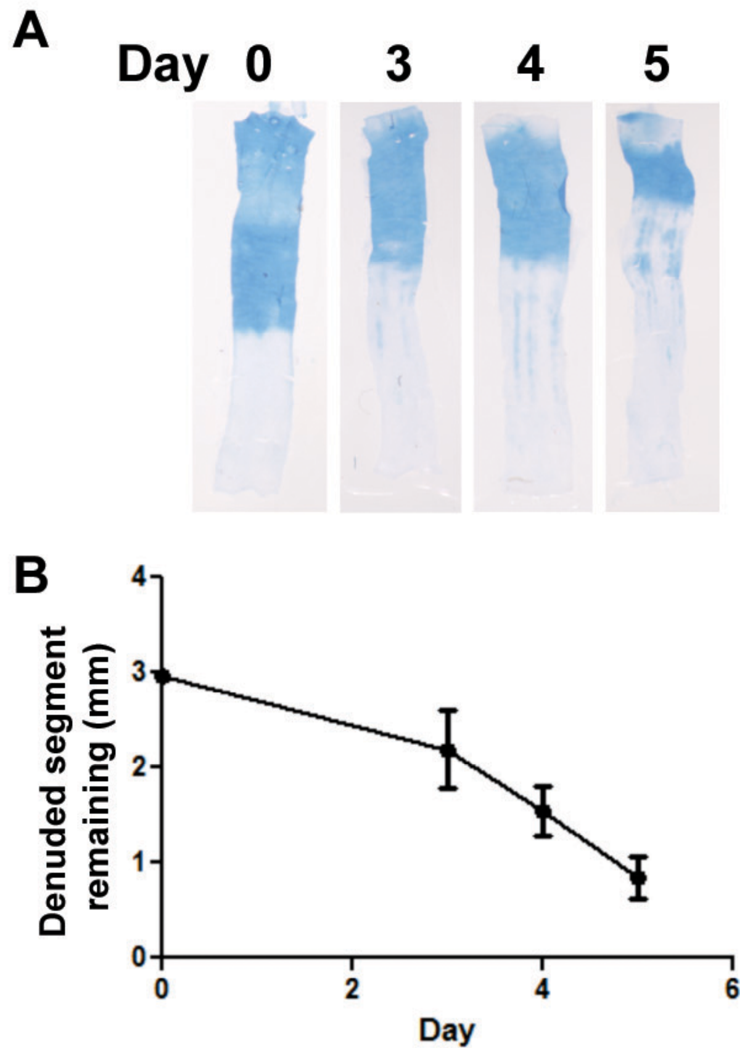
No-injury | Injury



SEM

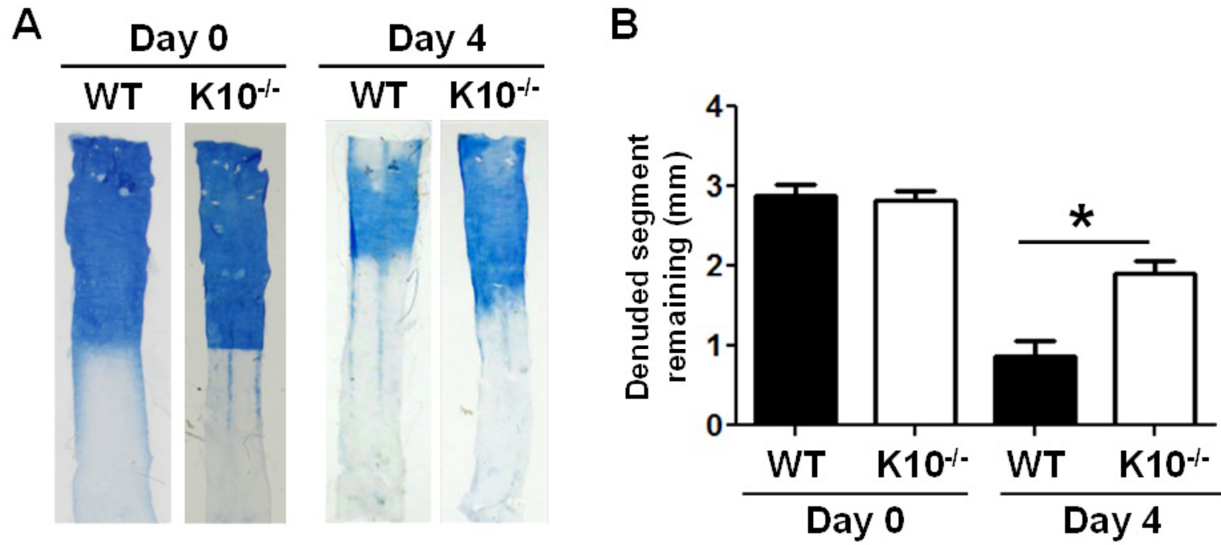
Supplemental Figure I. WT mice were subjected to carotid artery endothelial wire injury using a 0.014”-PTCA guidewire as previously described.[11] Carotid artery endothelial denudation was achieved two days after injury as shown by three independent strategies including: (A) silver nitrate perfusion staining; (B) staining for β-gal in Tie2-LacZ mice; and (C) scanning electron microscopy (SEM). *En face* carotid artery preparations demonstrated highly efficient endothelial denudation of the carotid artery (A, *right, 20X magnification;* B, *right, 20X magnification*; C, *right, 1500X magnification*).

Supplemental Figure II



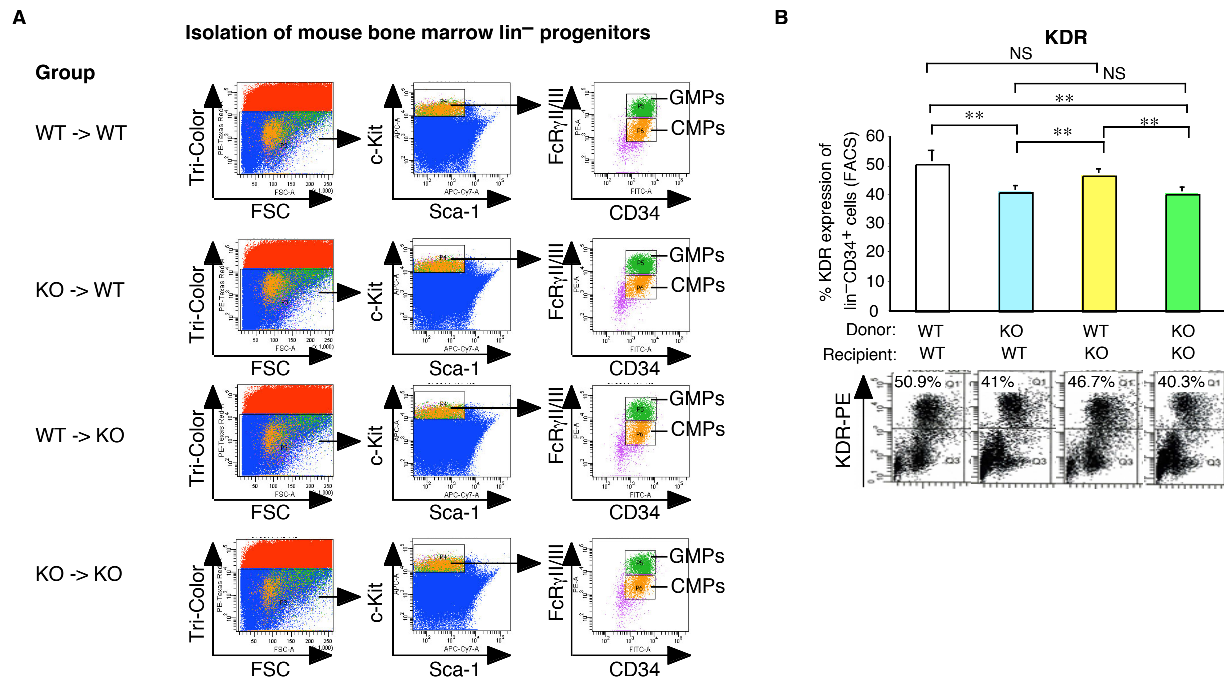
Supplemental Figure II. C57BL/6 WT mice were subjected to carotid artery endothelial wire thermal injury as described in the 'Methods' Section. The length of denuded segment remaining was determined after Evans blue systemic perfusion (n=5 mice/time point).

Supplemental Figure III



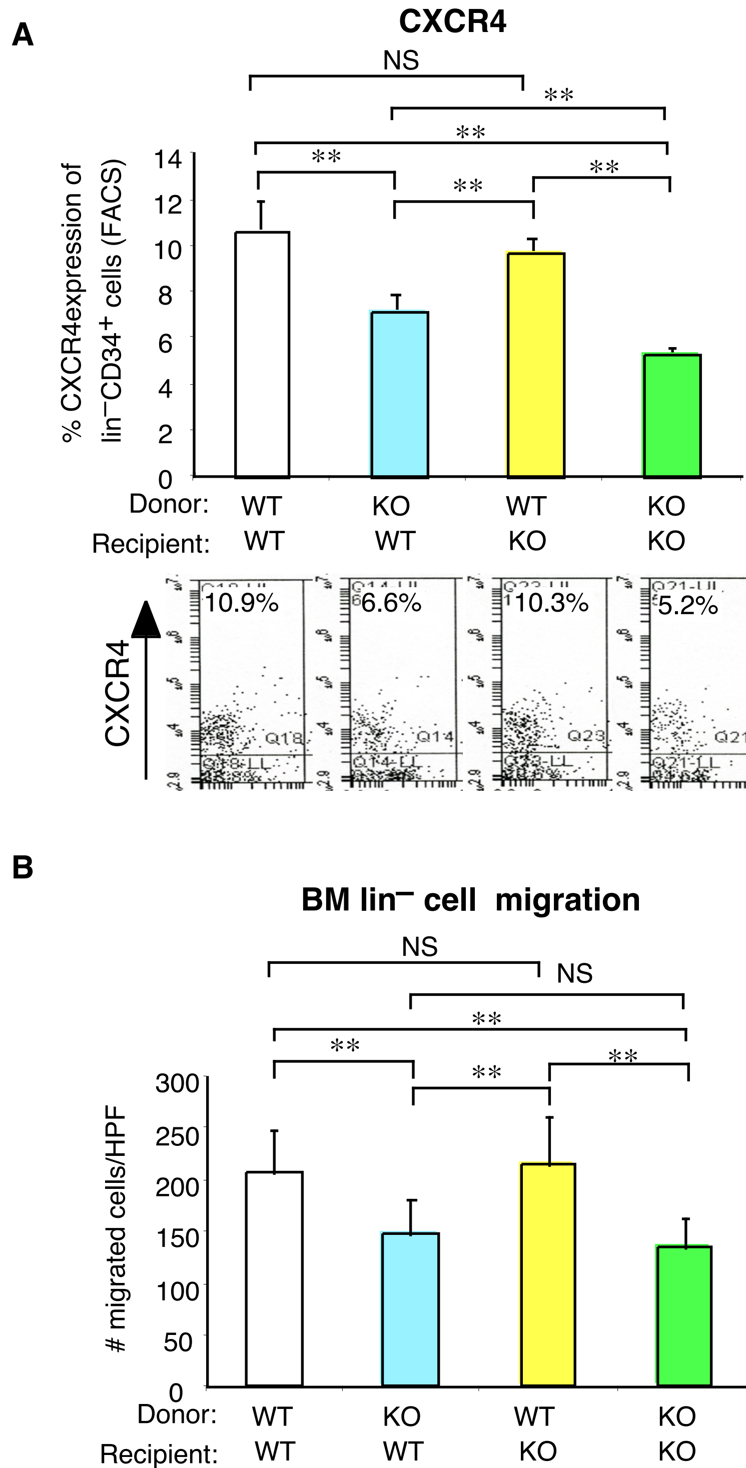
Supplemental Figure III. WT or KLF10$^{-/-}$ mice were subjected to carotid artery endothelial wire thermal injury as described in the 'Methods' Section. The length of denuded segment remaining was determined after Evans blue systemic perfusion (n=6-12/group). * *P* =0.00072.

Supplemental Figure IV



Supplemental Figure IV. Isolation of lin$^-$BM progenitor cells from WT or KLF10$^{-/-}$ mice reconstituted with either WT or KLF10$^{-/-}$ bone marrow (BM). Mouse bone marrow-derived cells were prospectively isolated and purified using multi-color FACS (BD FACSARIA, BD Biosciences) for CMPs (Lin$^-$Sca1$^-$c-kit$^+$CD34$^+$FcγRII/II^{lo}) and GMPs (Lin$^-$Sca1$^-$c-kit$^+$CD34$^+$FcγRII/III^{hi}). Subsequently, cells were incubated in EGM-2 medium (Lonza) for 7 days, and subjected to flow cytometry to detect expression of KDR (eBioscience) (B) or CXCR4 and CCR7 (Fig. 2C). ** P <0.01.

Supplemental Figure V



Supplemental Figure V. Expression of CXCR4 in lin$^-$BM progenitor cells freshly isolated from WT or KLF10$^{-/-}$ mice reconstituted with either WT or KLF10$^{-/-}$ bone marrow (BM). Mouse BM lin$^-$CD34$^+$ progenitors were freshly isolated and subjected to flow cytometry to assess expression of CXCR4 (A) and migration in response to SDF-1α by transwell Boyden chamber assays. ** P <0.01; NS, non-significant.