SUPPLEMENTARY MATERIAL

Table S1. Murine primers for quantitative real-time PCR

		Forward	Reverse
Stromal cell-derived factor-1	SDF-1α	5'-CAGAGCCAACGTCAAGCATCTGAA-3'	5'-TCTGTTGTTGTTCTTCAGCCGTGC-3'
Vascular endothelial growth factor	VEGF	5'-TACTGCTGTACCTCCACCATG-3'	5'-TCACTTCATGGGACTTCTGCTCT-3'
Plasminogen activator inhibitor 1	PAI-1	5'-TGACTGGGTGGAAAGGCATACCAA-3'	5'TGAAGTAGAGGGCATTCACCAGCA-3'
Matrix-metalloproteinase-3	MMP-3	5'-AGCTGAGGACTTTCCAGGTGTTGA-3'	5'-ACACAGGATGCCTTCCTTGGATCT-3'
Matrix-metalloproteinase-9	MMP-9	5'-ACCACAGCCAACTATGACCAGGAT-3'	5'-AAGAGTACTGCTTGCCCAGGAAGA-3'
Matrix-metalloproteinase-13	MMP-13	5'-TGGAGTGCCTGATGTGGGTGAATA-3'	5'-TGGTGTCACATCAGACCAGACCTT-3'
Fibroblast growth factor 2	FGF-2	5'-ACCTTGCTATGAAGGAAGATGGACGG-3'	5'-TACCAACTGGAGTATTTCCGTGACCG-3'
18 S ribosomal RNA	18 S	5'-TCAACTTTCGATGGTAGTCGCCGT-3'	5'-TCCTTGGATGTGGTAGCCGTTTCT-3'

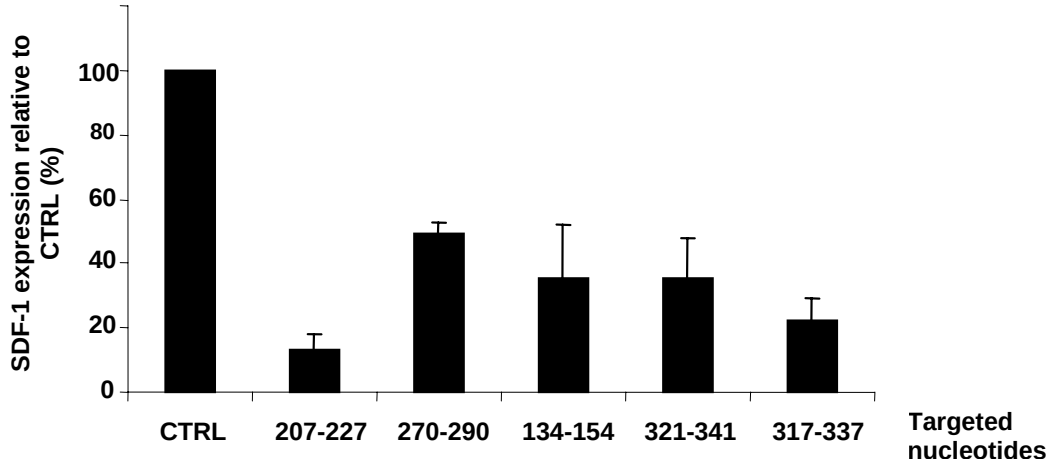

Figure S1. Efficacy of lentivectors expressing different shRNA targeting SDF-1. Briefly, MSCs were transfected overnight with shRNA expression vectors (obtained from Open Biosystem) using Lipofectamine 2000 and clones were selected with puromycin (2.5 μg/ml). Amount of secreted SDF-1α in conditioned medium from genetically modified MSCs was determined by ELISA. Data are expressed as means ± SEM of 2 independent measurements.

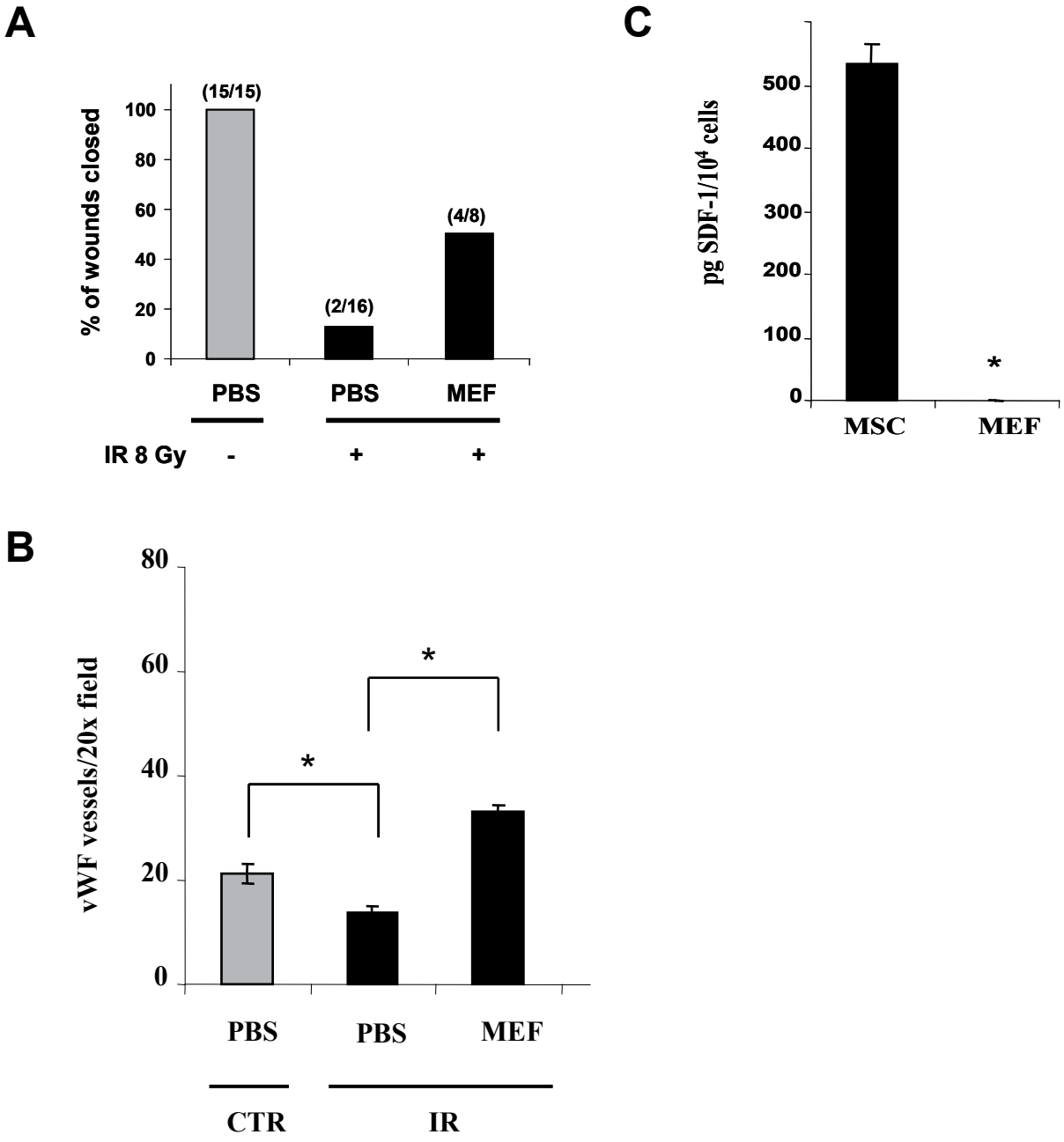

Figure S2. MEFs increase wound healing independently of SDF-1α. (A) Full-thickness biopsies were created on the dorsal surface of mice previously exposed to IR or not, and the effect of intradermal injection of PBS or MEFs (4 injections sites per wound, $1x10^6$ cells total) on wound healing were analysed. Shown are the proportions of wounds over 90 % closed at day 13. (B) Wound vascularisation density, as determined by vWF stainings, analysed 15 days after injury. Quantification of the number of vWF positive vessels per 20x field for each group is shown. Data are mean +/- SEM; (n= 6 sections from n=3 mice; *P = 0.001). (C) MEFs secrete undetectable level of SDF-1α in conditioned medium compared to MSCs as determined by ELISA. Data are expressed as means +/- SEM of 2 independent measurements. * Below detection levels.

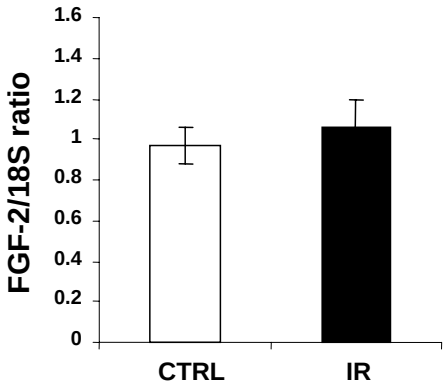

Figure S3. Level of FGF-2 is unchanged in irradiated skin. Total RNA was collected from wounds together with surrounding margins (day 3), and the ratios of FGF-2 RNA relative to 18S ribosomal RNA were determined by quantitative real-time PCR. Shown is the expression levels as detected in mice previously exposed to IR (black bar) compared to control non-irradiated mice (white bar). Data are mean ± SEM; (n=6).