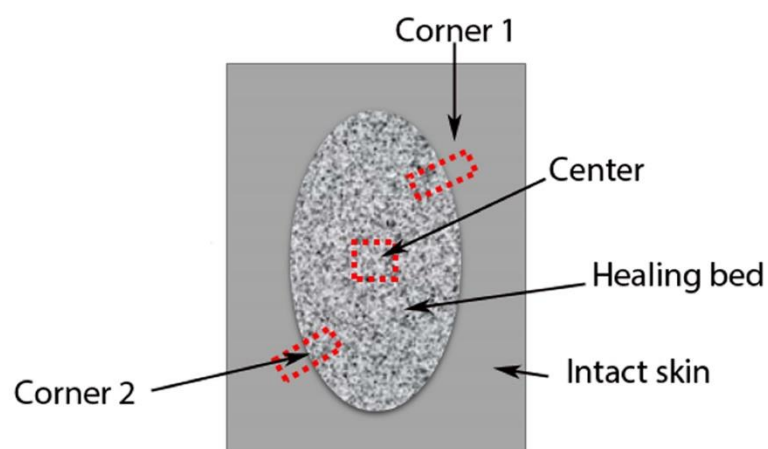


SUPPLEMENTARY DATA

Aging Impairs the Cellular Interplay between Myeloid Cells and Mesenchymal Cells during Skin Healing in Mice

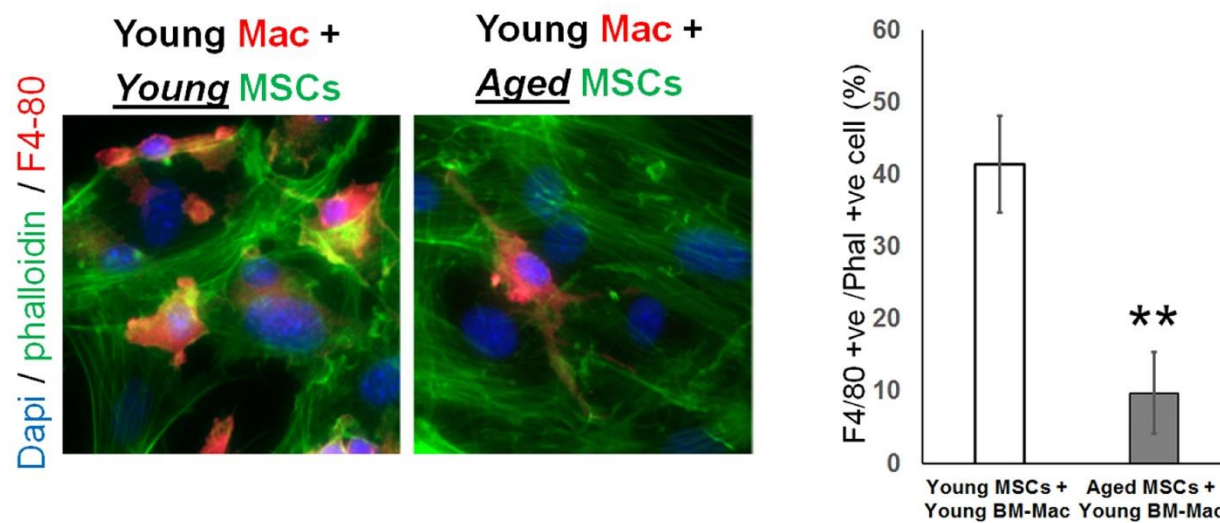
Saeid Amini-Nik^{2,3,4,6,#,*}, Abdikarim Abdullahi^{1,2,#}, Roohi Vinaik^{1,2}, Ren Jie Robert Yao^{1,2}, Nancy Yu², Andrea Datu², Cassandra Belo², Marc G Jeschke^{1,2,4,5,6*}

SUPPLEMENTARY DATA



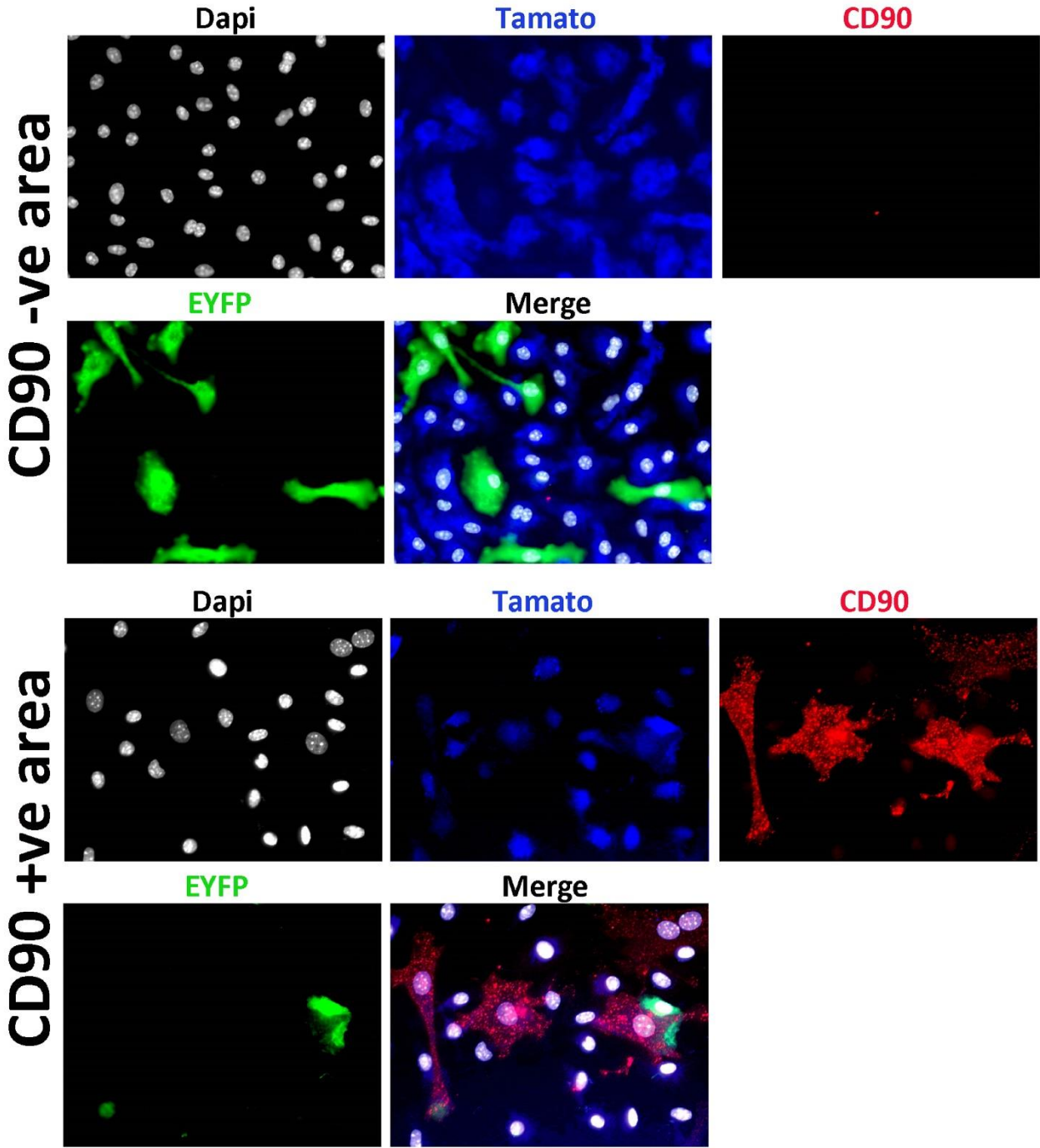
Supplementary Figure 1. Thermal injury model on dorsum skin of mice and isolation of healing tissue for histological and other proteomics and transcriptomics approaches.

SUPPLEMENTARY DATA



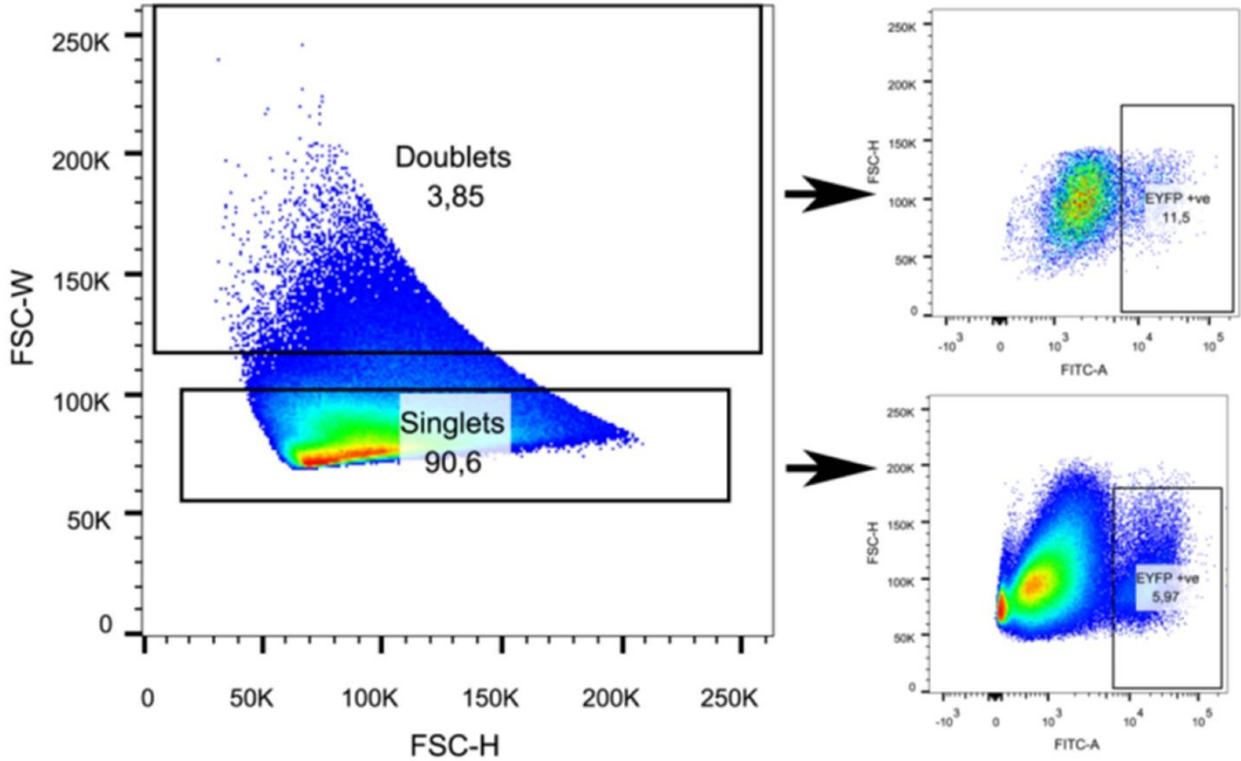
Supplementary Figure 2. Macrophages adhere to the adult MSCs in a lesser extent. Fewer EYFP+ macrophages attached to the adult MSCs as compared to young MSCs in adhesion experiments (** P < 0.01, error bars are showing 95% confidence intervals).

SUPPLEMENTARY DATA

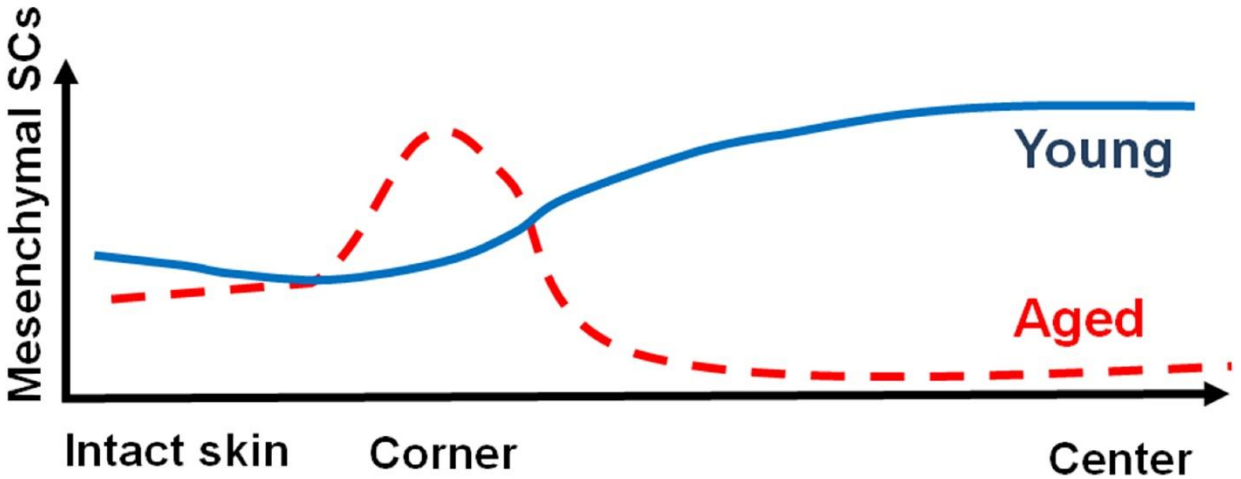


Supplementary Figure 3. Macrophages from young mice preferentially adhere to CD90+ mesenchymal cells.

SUPPLEMENTARY DATA



Supplementary Figure 4. Macrophages, together with CD90+ mesenchymal stem cells, make doublets. Flow cytometry of trypsinized cells obtained from young mice after adhesion of EYFP+ macrophages is showing that a substantial population of the dissociated viable events are doublets events and the number of EYFP+ macrophages are significantly more in doublet population in compare with singlet population.



Supplementary Figure 5. Schematic illustration of the spatial distribution of MSCs in young vs. adult animals.

SUPPLEMENTARY DATA

Supplementary Table 1. RNA analysis shows the down-regulation of key adhesion genes in CD90-ve MSCs as compared to CD90+ MSCs.

Symbol	Description	Fold Regulation
Dpp4	Dipeptidylpeptidase 4	-11.9211
Egf	Epidermal growth factor	-6.1064
Actn3	Actinin alpha 3	-5.1145
Rho	Rhodopsin	-4.1576
Cav1	Caveolin 1, caveolae protein	-2.9902
Wasf1	WASP family 1	-2.6788
Fap	Fibroblast activation protein	-2.5253
Pld1	Phospholipase D1	-2.3191
Pxn	Paxillin	-2.0829
Ptpn1	Protein tyrosine phosphatase, non-receptor type 1	-2.0278

FACS sorted CD90+ and CD90-ve from bone marrow-derived MSCs of young mice show a decreased expression of adhesion-related genes in CD90-ve MSCs.