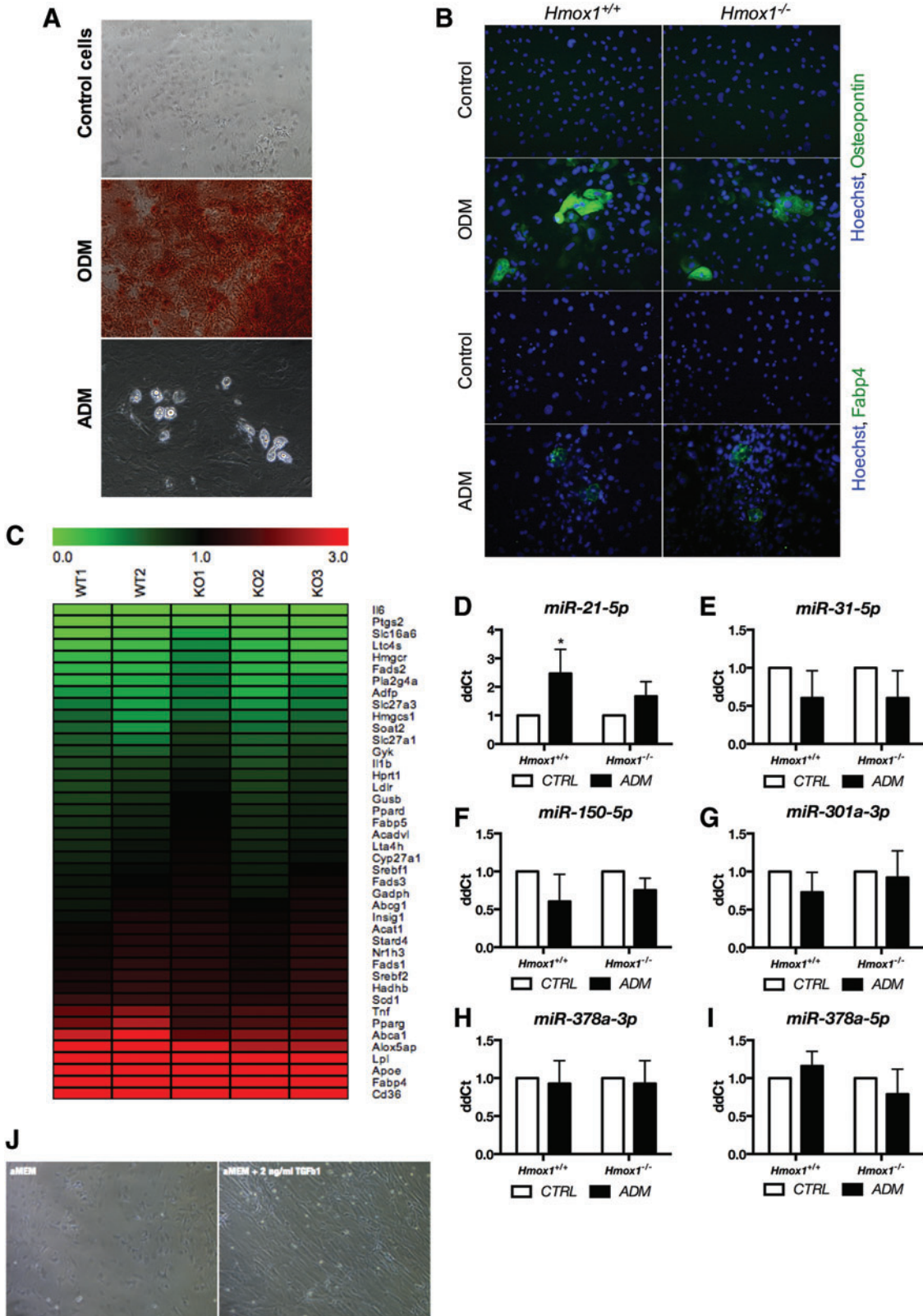


Supplementary Data



SUPPLEMENTARY FIG. S1. MSC $Hmox1^{+/+}$ or $Hmox1^{-/-}$ show similar differentiation capacities. Isolated bone marrow cells were able to differentiate to osteoblasts and adipocytes *in vitro* (A). MSC $Hmox1^{+/+}$ or $Hmox1^{-/-}$ differentiated to osteoblasts stained for osteopontin and differentiated to adipocytes stained for Fabp4 (B). Changes in the expression of genes associated with lipid metabolism in $Hmox1^{+/+}$ or $Hmox1^{-/-}$ bone marrow mesenchymal stromal cells. Expression of genes was assessed with qRT-PCR by using TaqMan[®] Array Mouse Lipid-Regulated Genes. Each square represents fold difference in MSCs differentiated to adipocytes versus MSCs cultured in growth medium. Green squares show downregulation, whereas red squares indicate upregulation of gene expression in comparison to controls (C). Expression of *miR-21-5p* (D), *miR-31-5p* (E), *miR-150-5p* (F), *miR-301a-3p* (G), *miR-378a-3p* (H), and *miR-378a-5p* (I), in $Hmox1^{+/+}$ or $Hmox1^{-/-}$ mesenchymal stromal cells differentiated to adipocytes. $N=3$, $*p<0.05$, ADM-treated cells versus control. miRNA expression was assessed with qRT-PCR. Data are shown as mean \pm SD, $N=3$. MSCs, mesenchymal stromal cells; qRT-PCR, quantitative real-time PCR.