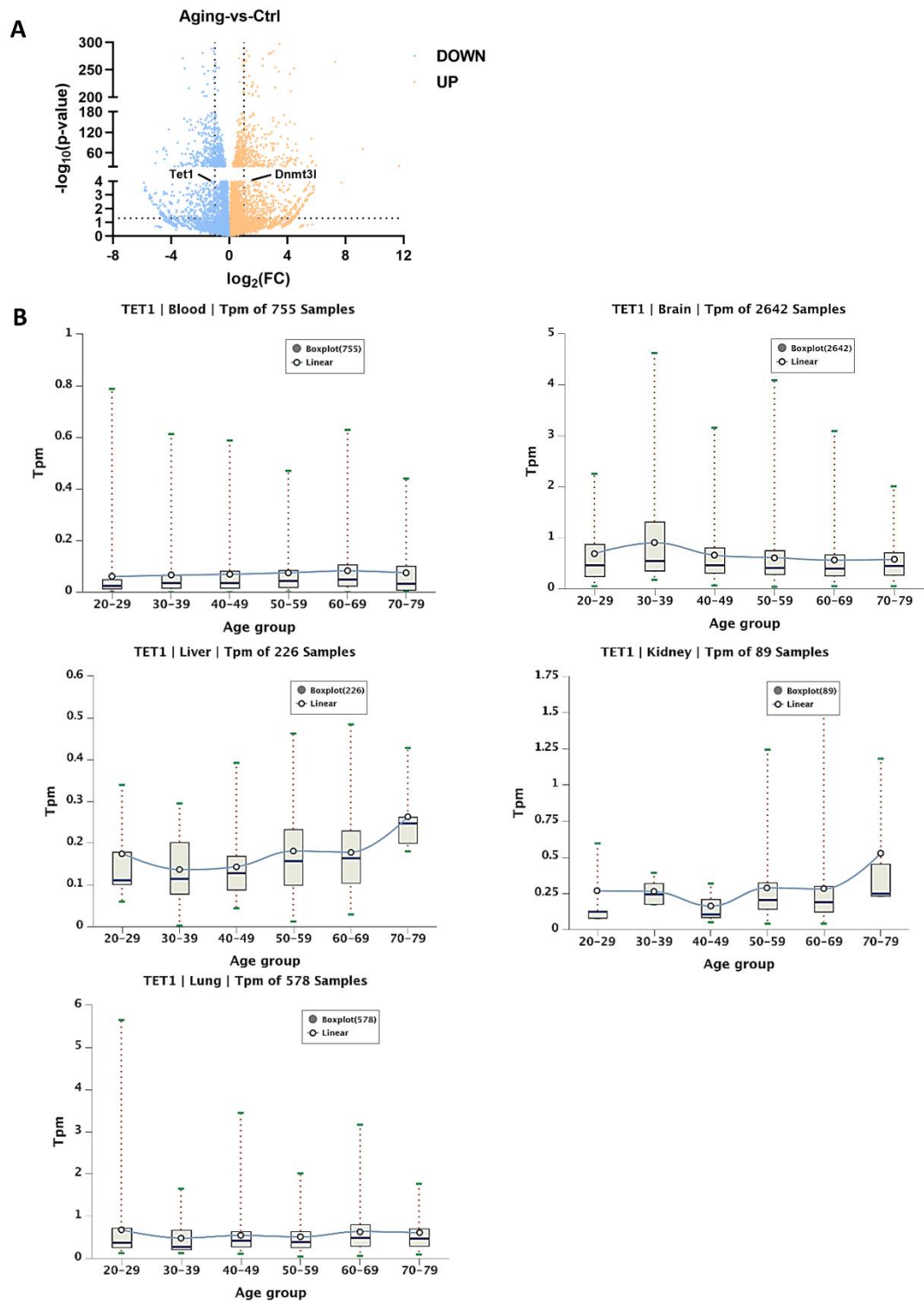


SUPPLEMENTARY DATA

Hypermethylation of *Bmp2* and *Fgfr2* Promoter Regions in Bone Marrow Mesenchymal Stem Cells Leads to Bone Loss in Prematurely Aged Mice

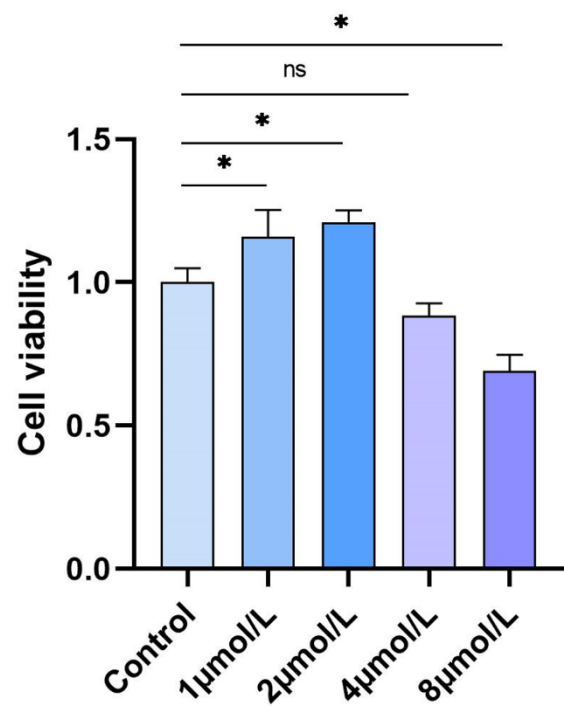
Yao Wang, Lin Sun, Tianyou Kan, Wendong Xue, Han Wang, Ping Xu, Lei Zhang, Mengning Yan, Hanjun Li, Zhifeng Yu

SUPPLEMENTARY DATA



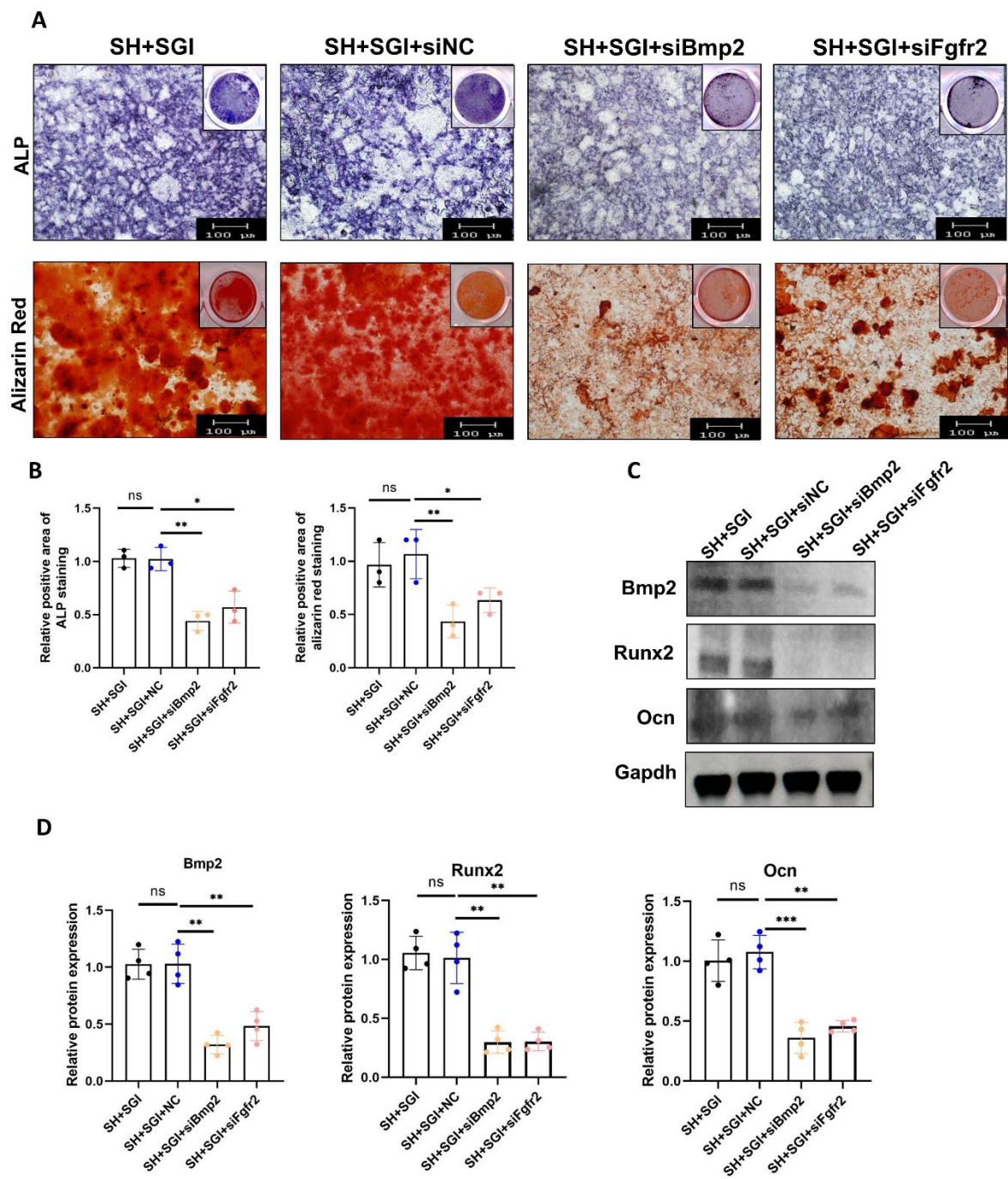
Supplementary Figure 1. Expression trends of Dnmt1 and Tet1 in naturally aging mouse BMSCs and aging human organs. (A) Volcano plots of differential genes identified by RNA-Seq between 18-month-old and 8-week-old mice. (B) Trends of *Tet1* expression in 20-79-year-old human organs.

SUPPLEMENTARY DATA



Supplementary Figure 2. Cytotoxicity assay of SGI-1027.

SUPPLEMENTARY DATA



Supplementary Figure 3. Knockdown of Bmp2 and Fgfr2 reduces the rescue effect of SGI-1027. (A) ALP and Alizarin Red Staining of Induced BMSCs and their quantification (n=3/group, one technical replicate of three biological replicates for each group). *P<0.05, **P<0.01, one-way ANOVA. Compared with SH+SGL. For the sequence of siRNA(5'to3'), Fgfr2: UGGCUGAAGCAGUGGGAAUTT, AUUCCACUGCUUCAGCCATT. Bmp2: CGGAAGACGUCCAGCGATT,UCGCUGA GGACGUUCCGTT.NC: UUCUCCGAACGUGUCACGUTT, ACGUGACAGUUCGGAGAATT. **(B-G)** Western blot detection of protein levels of Osteogenesis-related factors (n=4/group, one technical replicate of four biological replicates for each group) *P<0.05, **P<0.01, one-way ANOVA.