

Title: Supplemental Movie 1.

Description: Movie showing three-dimensional whole skeleton micro-CT imaging of newborn wild-type mouse.

Title: Supplemental Movie 2.

Description: showing three-dimensional whole skeleton micro-CT imaging of newborn S309W heterozygous knock-in mouse.

Title: Supplemental Movie 3.

Description: Movie showing three-dimensional whole skeleton micro-CT imaging of newborn S309W homozygous knock-in mouse.

Title: Supplemental Movie 4.

Description: Movie showing three-dimensional whole skeleton micro-CT imaging of 3 weeks old wild-type mouse.

Title: Supplemental Movie 5.

Description: Movie showing three-dimensional whole skeleton micro-CT imaging of 3 weeks old S309W mosaic mouse.

Title: Supplemental Movie 6.

Description: Movie showing three-dimensional whole skeleton micro-CT imaging of 20 weeks old wild-type mouse.

Title: Supplemental Movie 7.

Description: Movie showing three-dimensional whole skeleton micro-CT imaging of 20 weeks old S309W mosaic mouse.

Title: Supplemental Data 1.

Description: Summary of mice generated using CRISPR Cas9.

Title: Supplemental Data 2.

Description: Summary of genotype and phenotype of the four S309W mosaic mice.

Title: Supplemental Data 3.

Description: Comparison between SP7-associated high turnover bone disorder and other forms of high turnover disorders.