

**Supplemental** Table 1. Quantitation of microCT data from the femoral midshaft.

Parameters	WT	Hyp	
	Vehicle	Vehicle	PD0325901
Cortical Bone Volume (%)	0.45 ± 0.01	0.27 ± 0.003 <sup>#</sup>	0.31 ± 0.005 <sup>**</sup>
Cortical Thickness (mm)	0.19 ± 0.003	0.09 ± 0.002 <sup>#</sup>	0.11 ± 0.003 <sup>**</sup>
Cortical Porosity	0.52 ± 0.01	0.83 ± 0.04 <sup>#</sup>	0.70 ± 0.02 <sup>**</sup>
Femur Length (mm)	15.89 ± 0.05	11.21 ± 0.36 <sup>#</sup>	11.79 ± 0.15

Results are expressed as mean ± SEM. n=3 mice per group. <sup>#</sup>*P*<0.05, compared to WT mice treated with vehicle; <sup>\*\*</sup>*P*<0.05, compared to *Hyp* mice treated with vehicle.