

Supplementary table S1: Trabecular bone microarchitecture analyzed by μ CT in distal femur of 2-month-old male WT and *Fgfr3*^{-/-} mice injected with PTH1-34 (80ug/kg) or vehicle for 28 days.

Groups	BV/TV (%)	Tb.Th (μ m)	Tb.N (1/mm)	Tb.Sp (μ m)	SMI
WT + Veh	23.9 \pm 8.5	85.5 \pm 11.0	3.01 \pm 1.02	209.5 \pm 18.3	1.4 \pm 0.2
WT + PTH	37.6 \pm 9.4	88.0 \pm 19.1	3.64 \pm 0.75	170.7 \pm 24.3	1.2 \pm 0.4
KO + Veh	14.4 \pm 6.1	74.4 \pm 8.7	1.90 \pm 0.68	234.4 \pm 73.7	2.0 \pm 0.3
KO + PTH	20.4 \pm 7.1	80.7 \pm 10.4	3.36 \pm 0.98	224.9 \pm 48.3	1.9 \pm 0.3
Two-way ANOVA (P values)					
Genotype	.005	NS	NS	NS	0.001
Treatment	.028	NS	0.019	NS	NS

BV/TV: bone volume/ tissue volume; Tb.Th: trabecular thickness; Tb.N: trabecular number; Tb.Sp: trabecular separation; SMI: structure model index. Data are expressed as mean \pm standard deviation for n=5 mice in each group. NS = not significant.

Supplementary table S2: Trabecular bone parameters analyzed by μ CT in distal femur of 4-month-old male WT and *Fgfr3*^{-/-} mice after PTH1-34 (80ug/kg) or vehicle treatment for 28 days.

Groups	BV/TV (%)	Tb.Th (μ m)	Tb.N (1/mm)	Tb.Sp (μ m)	SMI
WT + Veh	19.1 \pm 3.4	68.9 \pm 4.4	2.63 \pm 0.42	236.0 \pm 29.0	1.80 \pm 0.29
WT + PTH	26.9 \pm 8.5	83.5 \pm 8.9	3.17 \pm 0.71	192.2 \pm 20.5	1.44 \pm 0.31
KO + Veh	14.3 \pm 5.1	86.8 \pm 6.0	2.12 \pm 1.1	330 \pm 117.9	2.04 \pm 0.41
KO + PTH	28.2 \pm 11.7	124.3 \pm 19.1	2.27 \pm 0.85	194.4 \pm 29.9	1.32 \pm 0.50
Two-way ANOVA (P values)					
Genotype	NS	P < 0.001	NS	NS	NS
Treatment	.045	.001	NS	.015	.016

BV/TV: bone volume/ tissue volume; Tb.Th: trabecular thickness; Tb.N: trabecular number; Tb.Sp: trabecular separation; SMI: structure model index. Data are expressed as mean \pm standard deviation for n=5 mice in each group. NS = not significant.