

### **Supplemental Figure 1**

Serum calcium, creatinine, and blood urine nitrogen of 24-week-old mice. Bars: Wild-type, white; heterozygote, light gray; and homozygote, dark gray. N = 9-18 per group. T-test P-values < 0.05: †, compared to same-genotype male. M, males; F, females.

### **Supplemental Figure 2**

MicroCT images of femurs extracted from male mice on various phosphate diets. Representative images are taken from specimens that had measured values closest to group means (based on percent bone volume for trabecular bone and cross-sectional bone area for cortical bone).

Figure 1

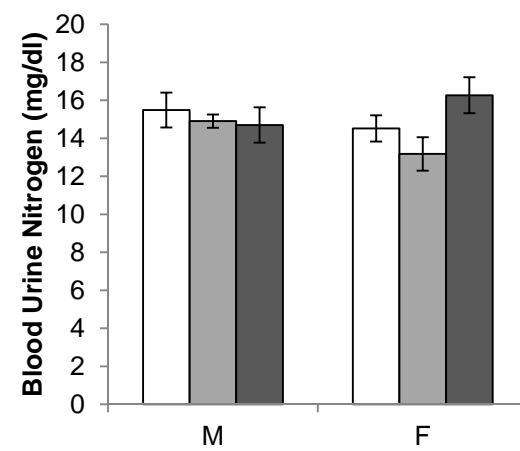
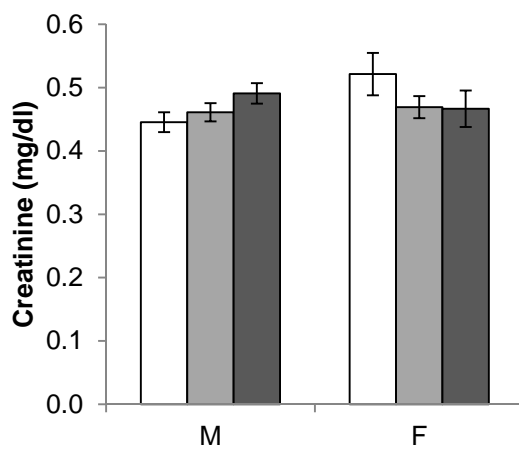
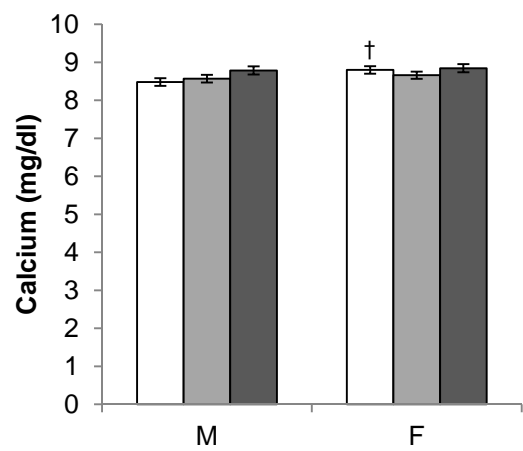
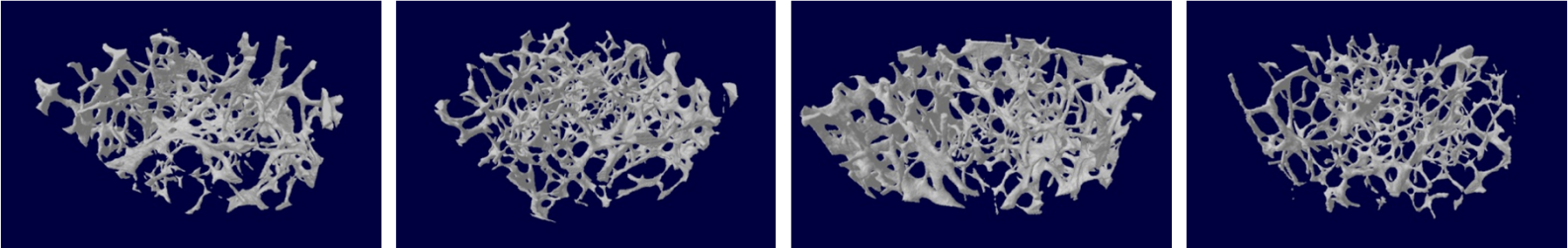


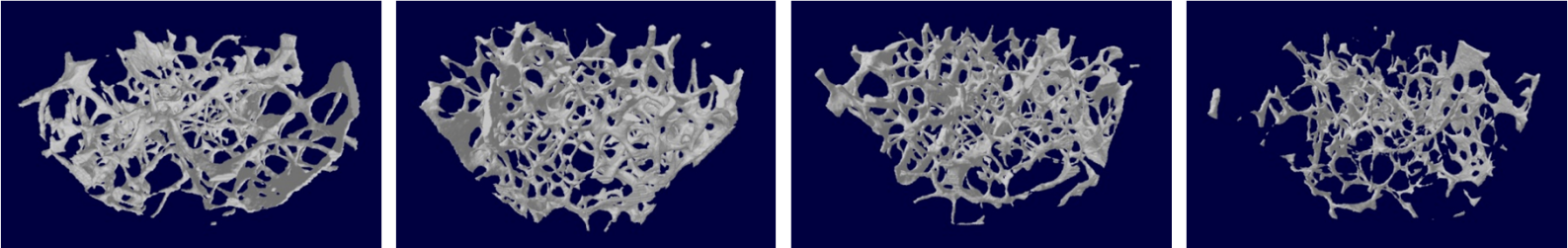
Figure 2

Trabecular Bone

Heterozygote

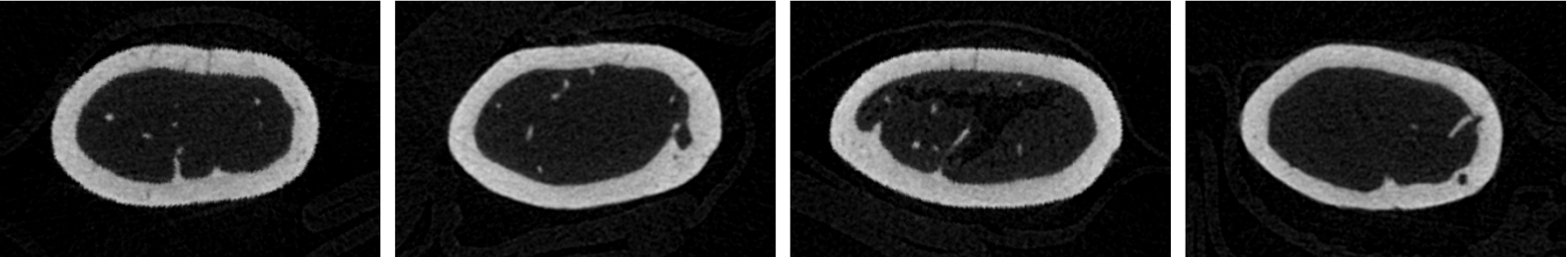


*Galnt3* Knockout

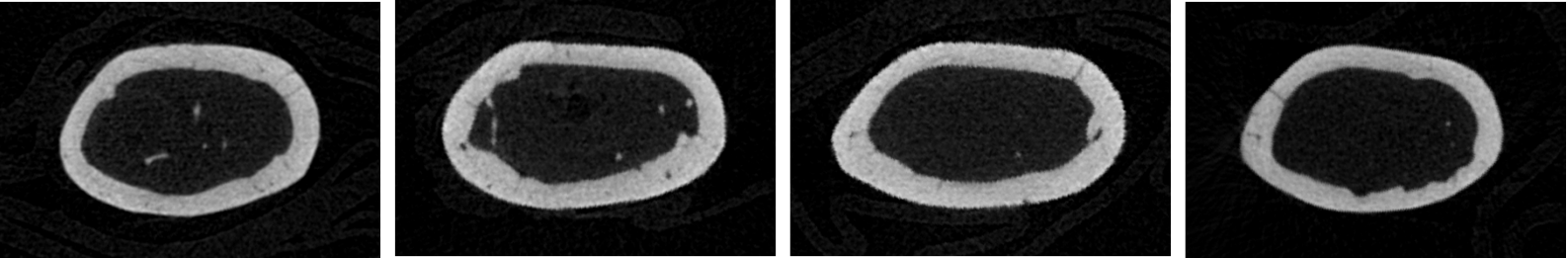


Cortical Bone

Heterozygote



*Galnt3* Knockout



0.1%

0.3%

0.6%

1.65%