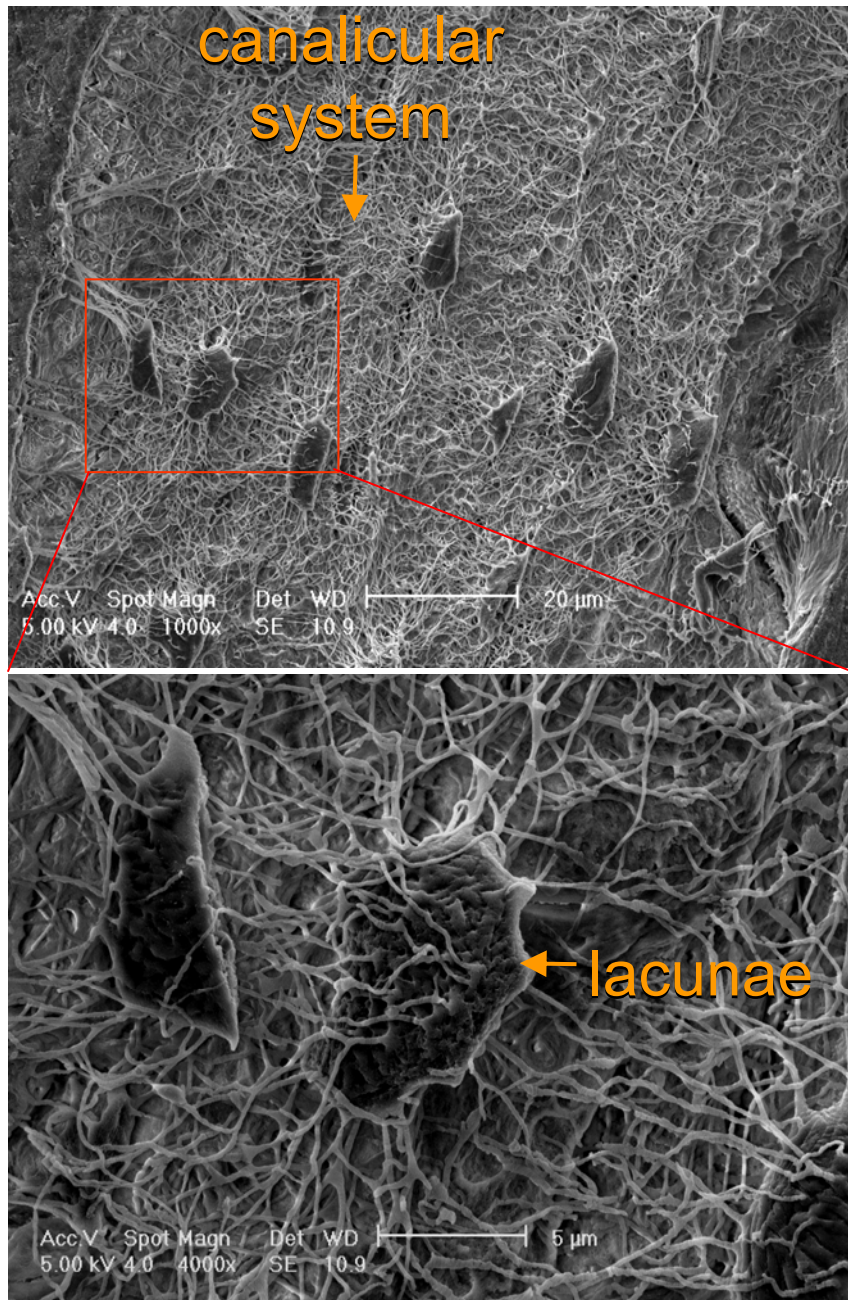
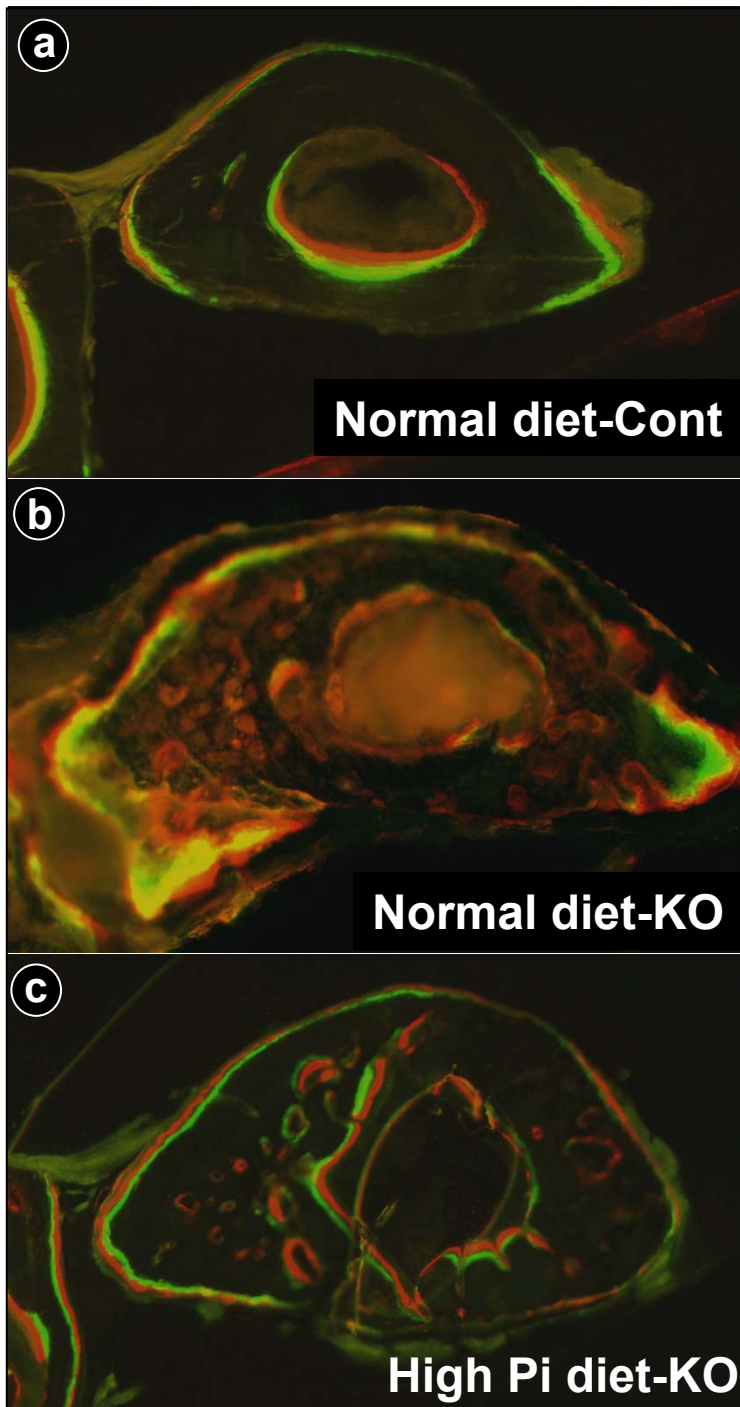


Supporting Online Materials



Supplementary Figure 1. Complexity of the osteocyte lacuno-canicular system. Polished resin embedded mouse alveolar bone (3 mo old) was acid-etched to remove mineral leaving behind the plastic for visualization using SEM. This image depicts not only the complexity of the system but how extensively bone is permeated by this network. The insert shows an enlargement of the area outlined in the top panel.



Supplementary Figure 2. High Phosphate diet does not completely rescue the osteomalacia in the *Dmp1* null mice. Double fluorochrome labeling (Alizarin Red, red in signal; calcein, green) of the long bones (2 mo old) shows: **a**, sharp discrete mineralization front in control; **b**, diffuse labeling in *Dmp1* null mice with normal diet; **c**, some rescue, but still osteomalacia in *Dmp1* null mice fed a high Pi diet.