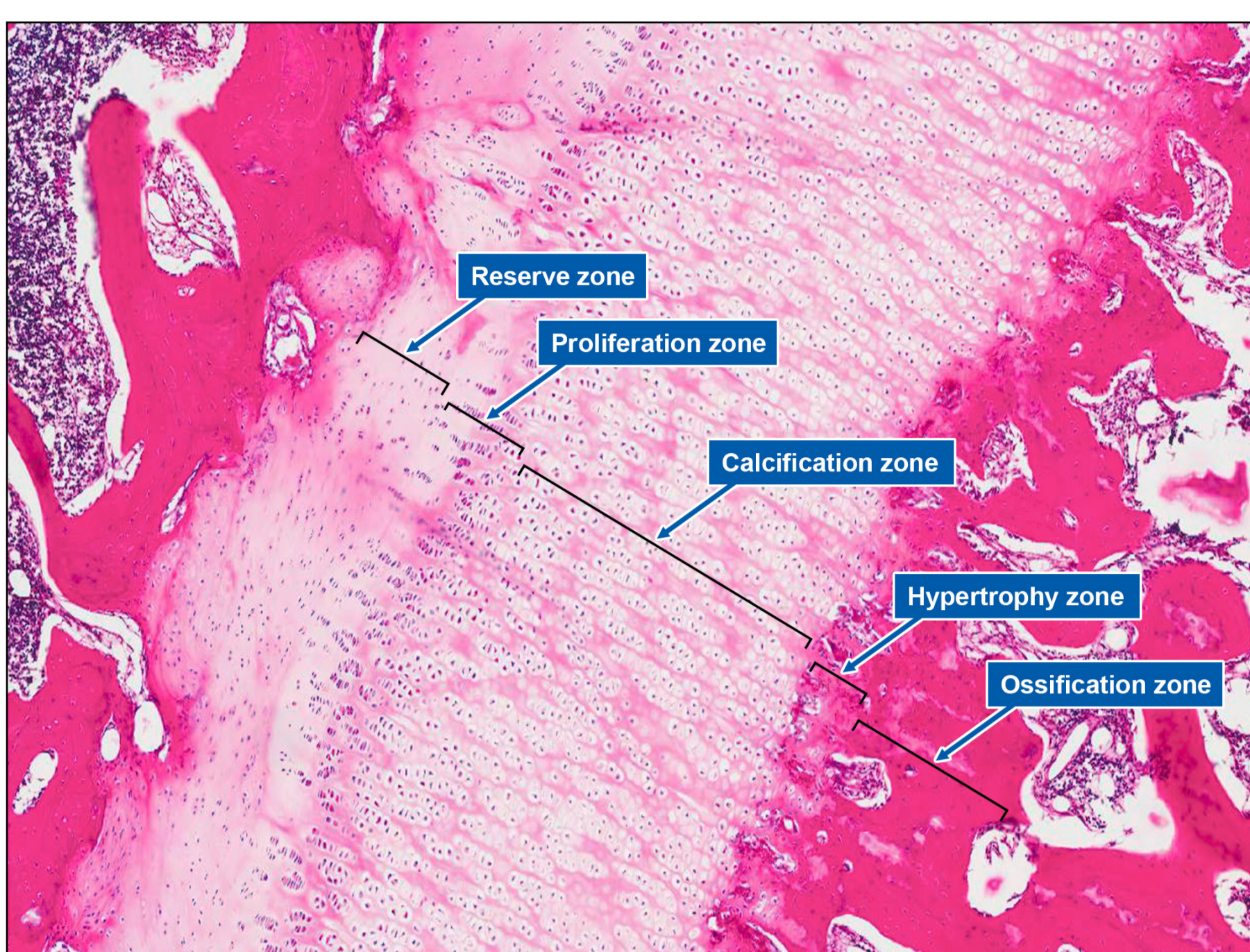


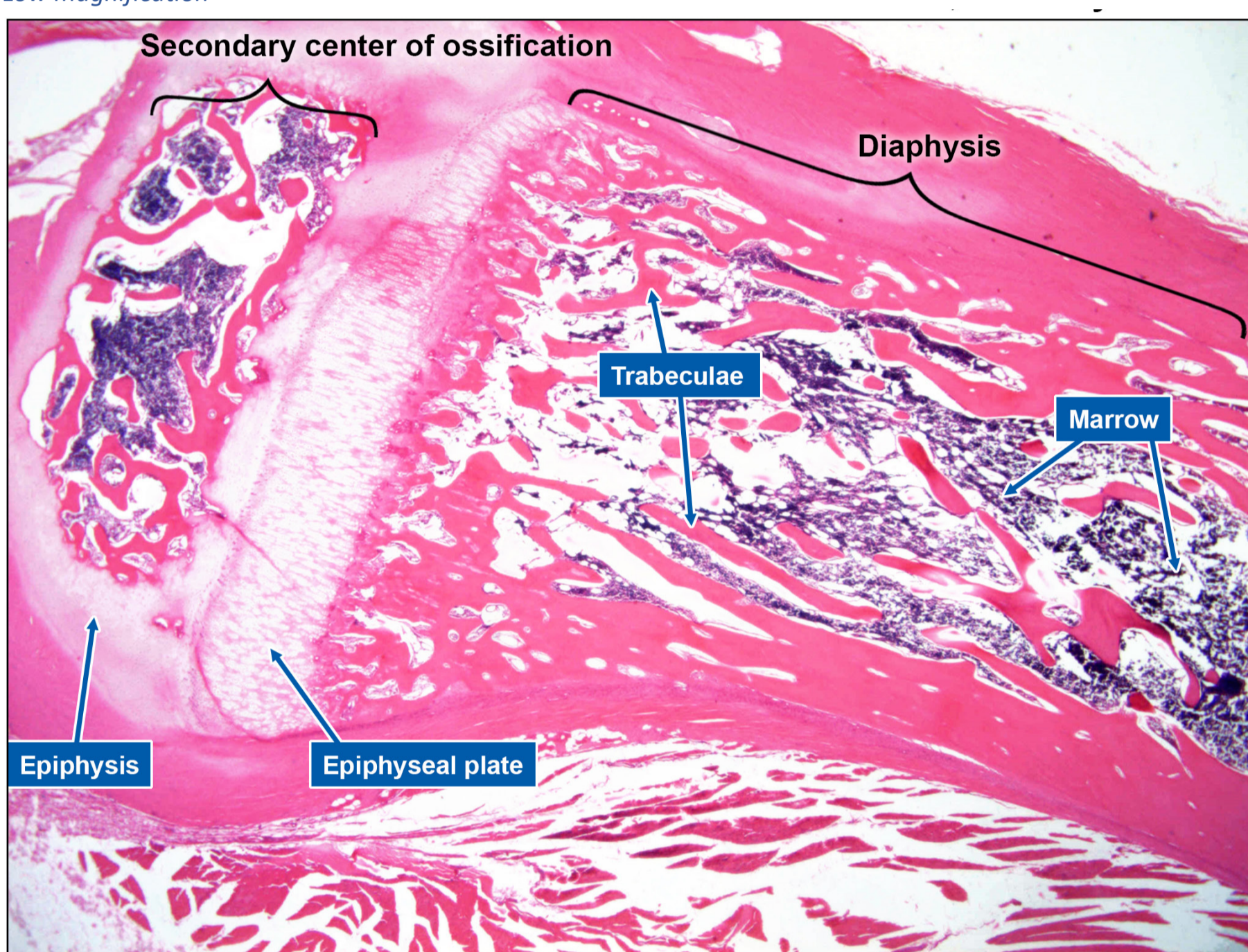
KNEE JOINT, MONKEY H&E

Musculoskeletal System

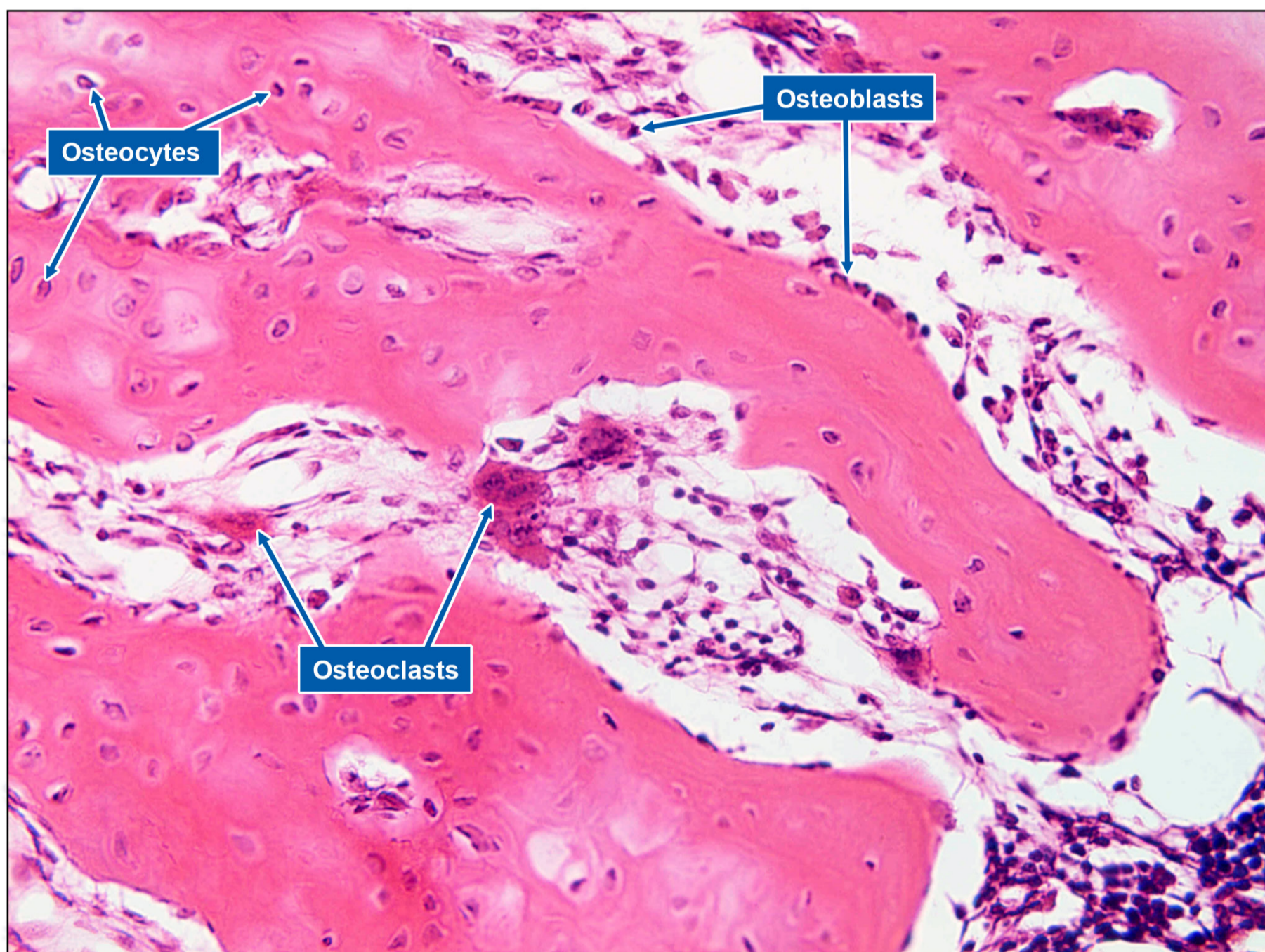
Diaphysis as the shaft of the bone possess an underlying network of **trabeculae** which protects the bone marrow.



Low magnification



High magnification



High magnification

1. Epiphyseal growth plate lies in the interface between the shaft and the epiphysis.
2. New bone development occurs through endochondral ossification.
3. Reserve zone refers to the bed of resting cartilage.
4. Proliferation zone shows hyaline cartilage undergoing intensive interstitial growth.
5. This is followed by hypertrophy zone with enlarged lacunae.
6. Calcification zone refers to when chondrocytes synthesize and release alkaline phosphatase into matrix causing cartilaginous matrix to become calcified, eventually the chondrocytes degenerate and die.