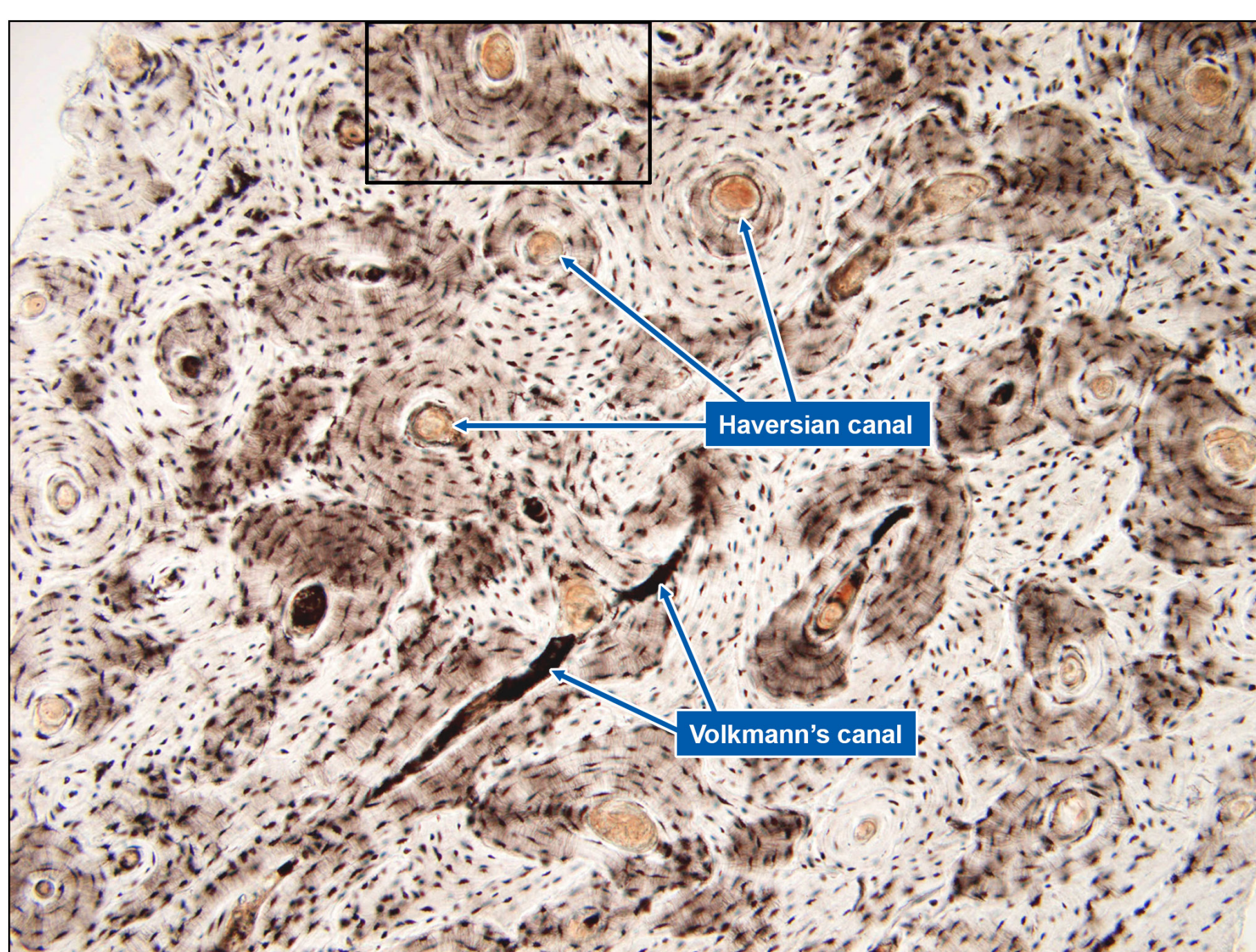


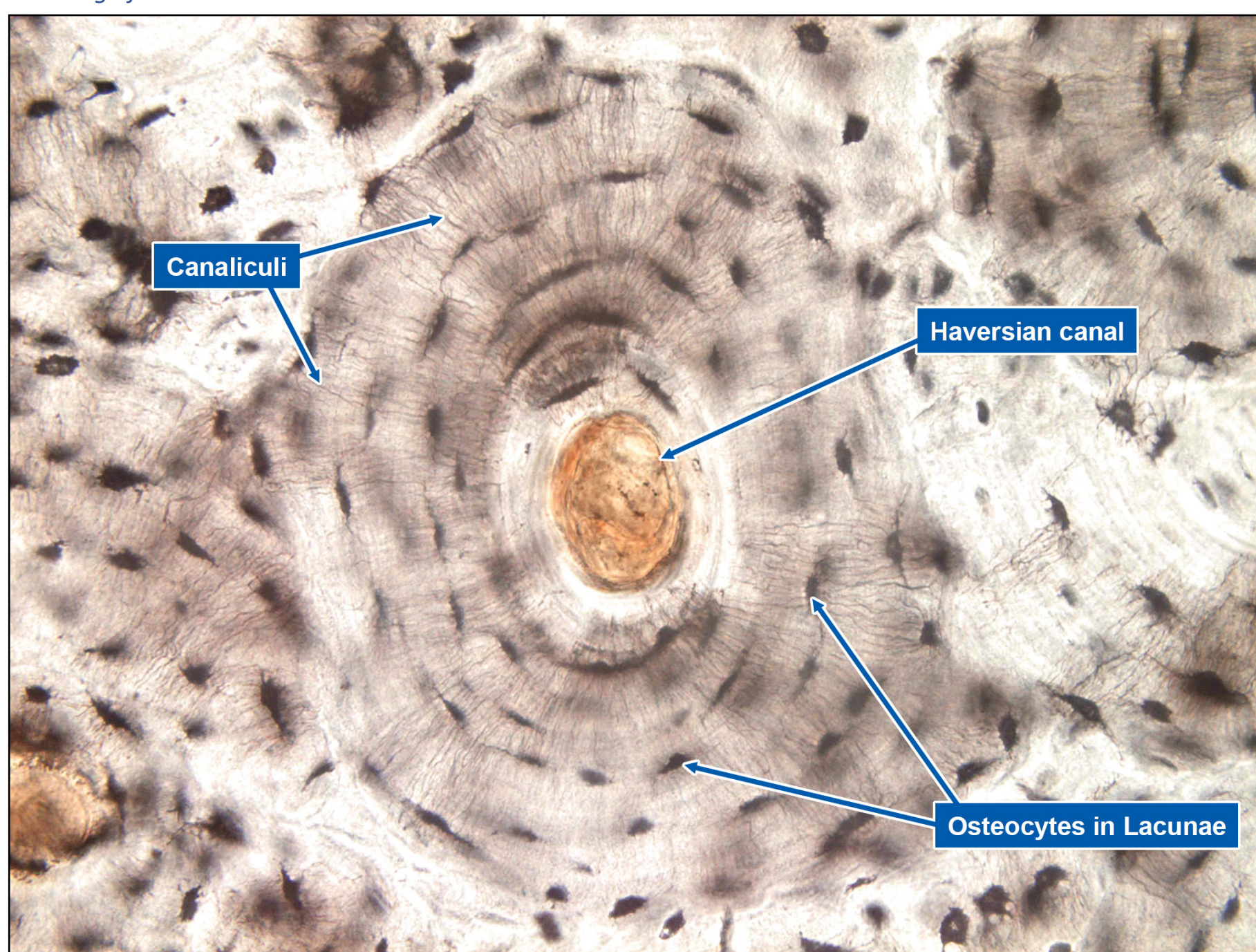
FEMUR HUMAN, GROUND SECTION

Musculoskeletal System

Preparing bone tissue for histology can be challenging due to its calcified matrix. There are two preparation techniques: Ground section and H&E staining.



Low magnification



High magnification

1. Compact bones possess Haversian systems which run parallel columns lengthwise down the axis of long bones.
2. These columns are composed of Lamellae, concentric rings of bone surrounding central channel of Haversian Canal.
3. The Haversian canal contains nerves, blood vessel and lymphatic system.
4. Volkmann's canals are lateral canals that interconnect two Haversian canals.
5. Haversian canals are surrounded by lacunae which are small, spindle shaped space containing Osteocyte.
6. Canaliculi are small channels which radiate from lacunae to the haversian canal providing a passageway.
7. Osteocytes use this passageway to send thin cytoplasmic extension to access the blood supply.