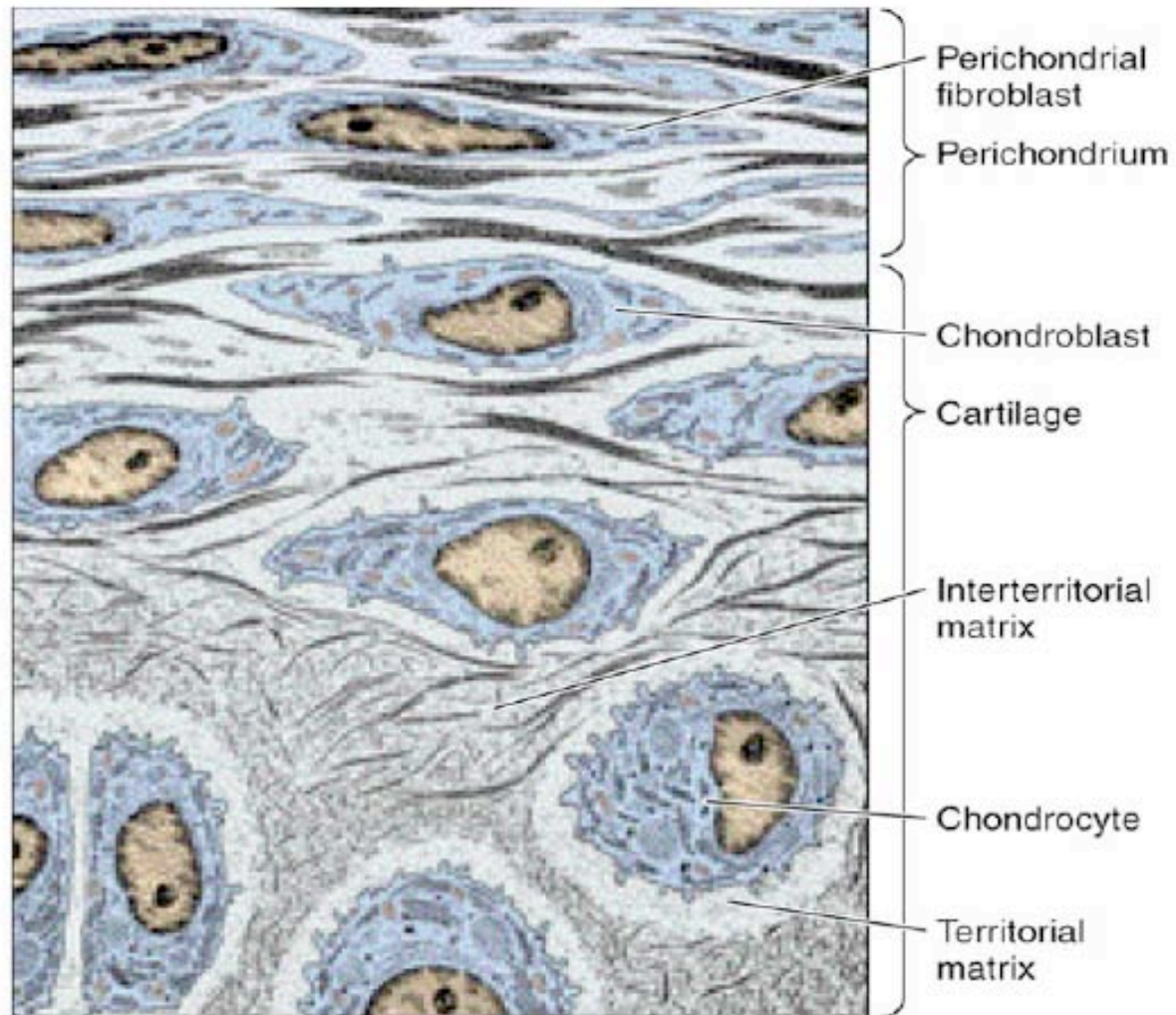


# Cartilage and Bone

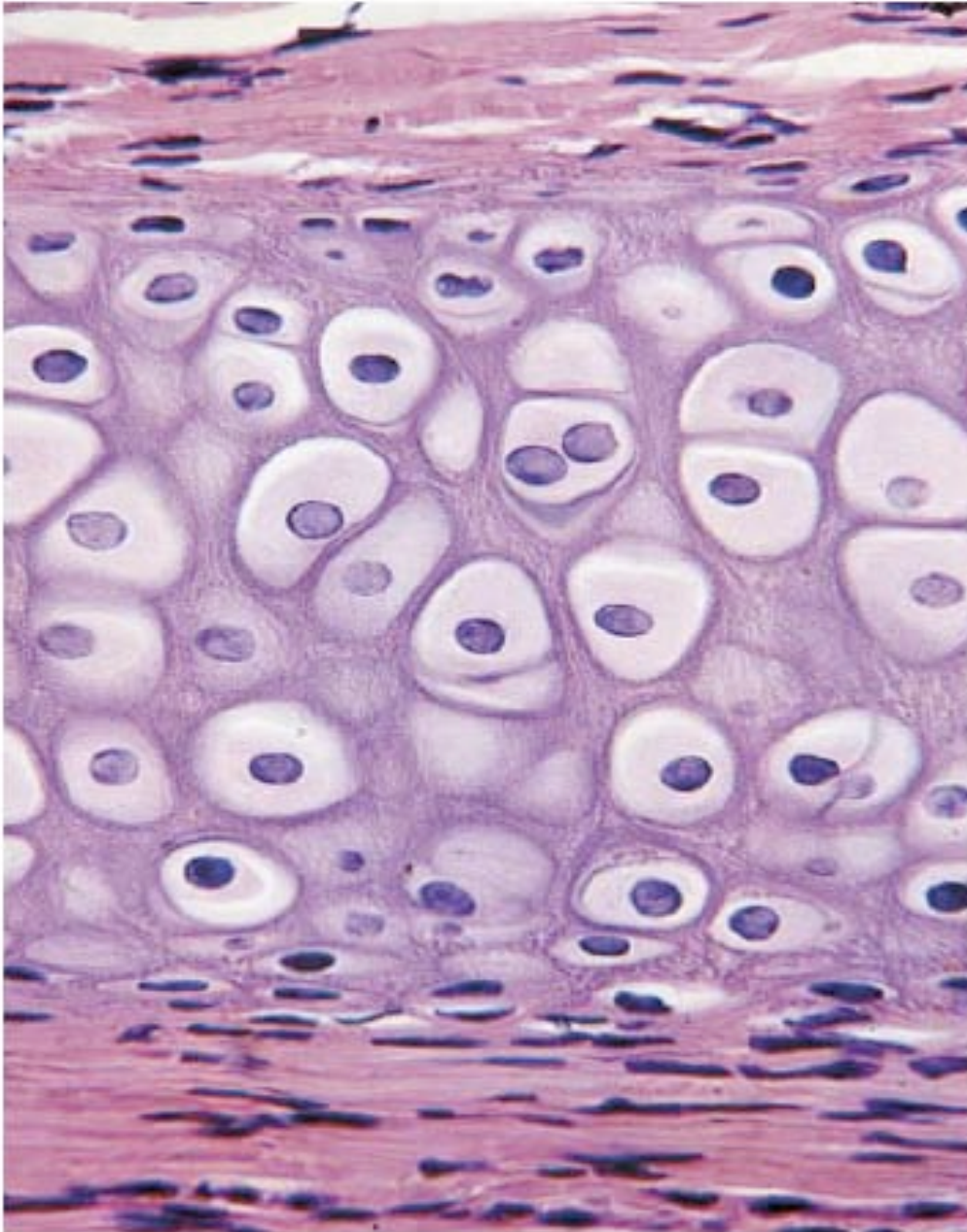
Review Session

# Cartilage



# Types of Cartilage

- Hyaline cartilage
  - Larynx, trachea, bronchi, ribs, articular surface of bones
  - Epiphyseal plate
- Elastic cartilage
  - Elastic fibers for resiliency
- Fibrocartilage
  - Type I collagen fibers for tensile strength, frictional forces
  - Between cartilage and connective tissue – intervertebral discs, pubic symphysis



- What type of tissue is this?

*Hyaline Cartilage*

- What cells are in this this type of tissue?

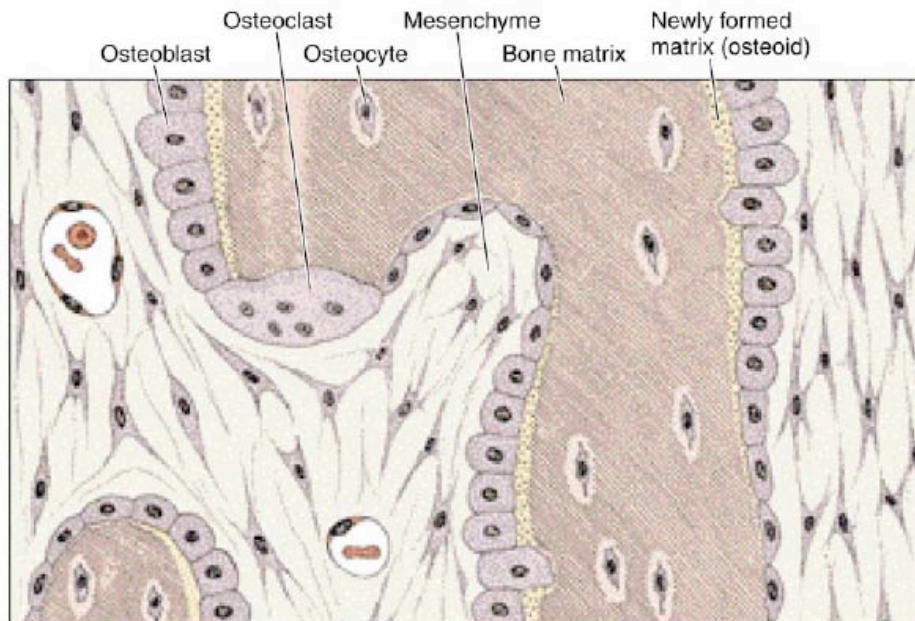
*Chondroblast*

- What organelle is particular important in these cells?

*Rough ER; for secreting proteins.*

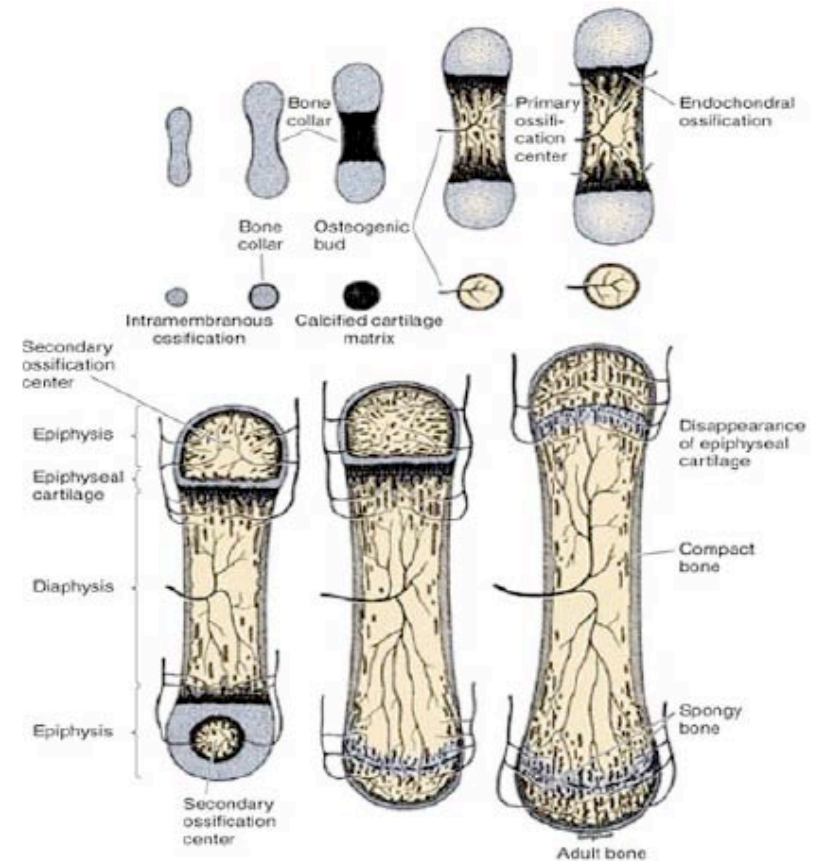
# Bone

## Intramembranous ossification



8-3: Bone development: Ossification

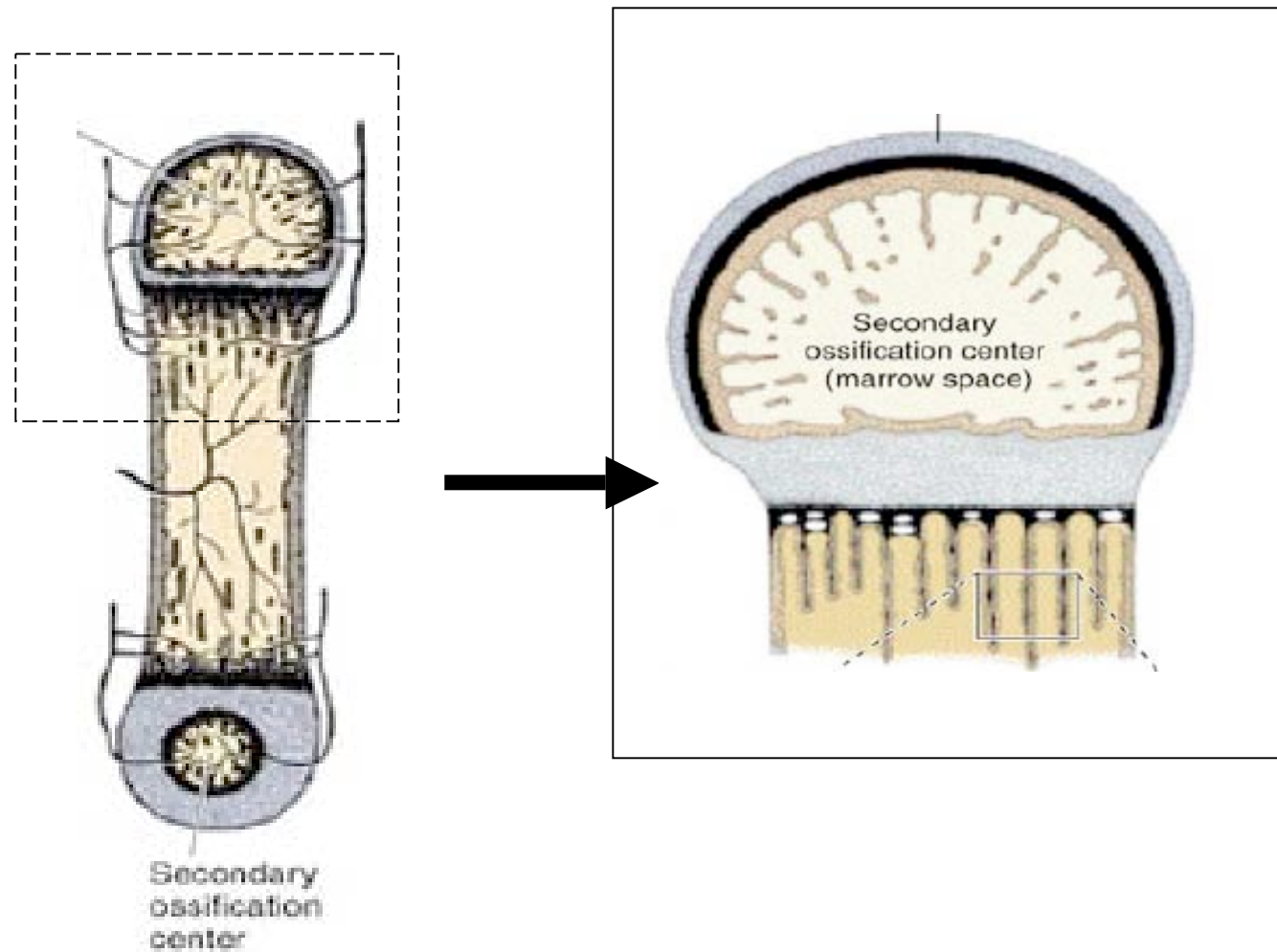
## Endochondral ossification



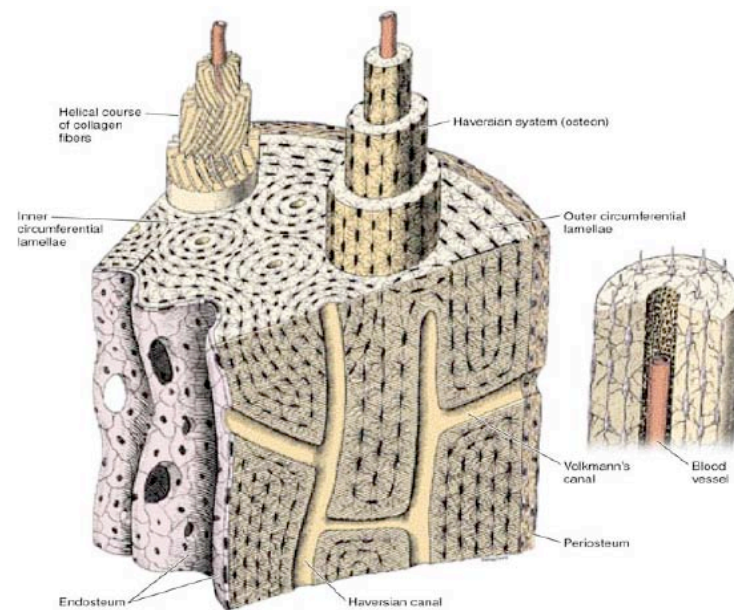
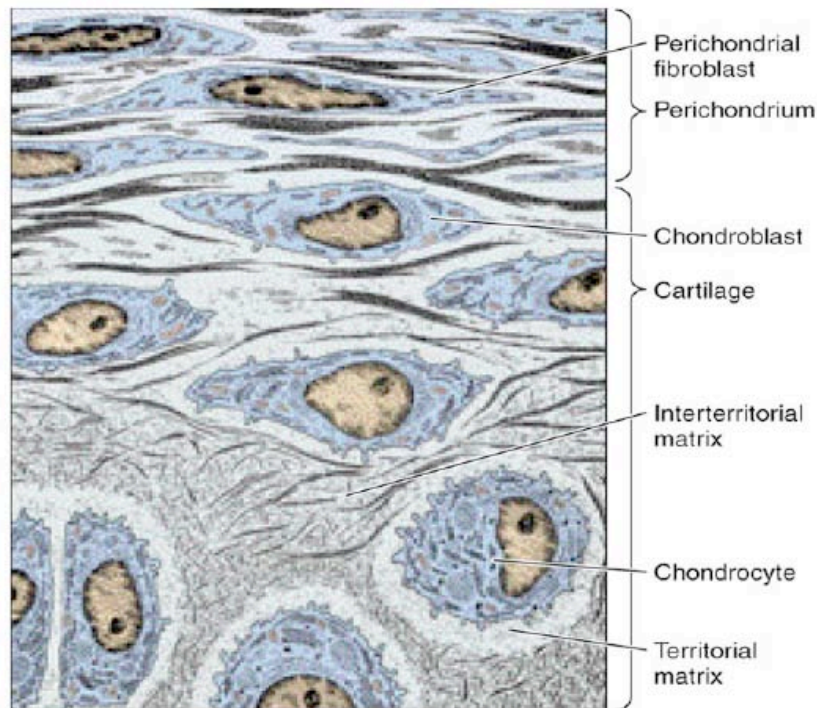
8-13: Long bone formation

# What cells give rise to this structure?

*Chondroblasts/chondrocytes. This is the epiphyseal plate*



Name two differences between cartilage and bone.



*Bone is calcified; deposition of calcium salts within matrix.  
Bone has blood supply while cartilage is avascular.*