

Fig. 12. Light microscopy showing mature Stapediovestibular joint (SVJ) in a b.28.d mouse. The Annular ligament (AL) (arrows) connecting the thin and non-hypertrophic articular cartilages (asterisks) of the SVJ is characterized by numerous densely-stained fibers interposing between fibroblasts and intruding into articular cartilages.

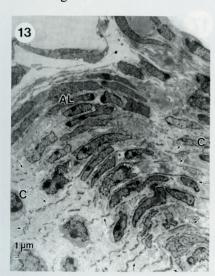


Fig. 13. Trasmission electron microscopy showing a part of the complete Stapediovestibular joint (SVJ), composed of articular cartilages Articular cartilage (C) and Annular ligament (AL) in a b.8.d specimen. Many spiral electron-dense fibers (arrows) are demonstrated interposing between AL fibroblasts and extending towards the Extracellular matrix (ECM) of articular cartilages.

chondrocyte zonation and demonstrated abrupt hypertrophy, indicating maturation of the joint by b.21.d (Figs. 11, 12, 13 and 14). The SVJ in the morphologically complete and mature stages was connected with the characteristic hammock-like AL, which contained

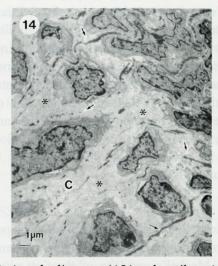


Fig. 14. Annular ligament (AL) and cartilage Articular cartilage (C) of the mature Stapediovestibular joint (SVJ) at b.21.d. The extracellular matrix of articular cartilage contains abundant collagen (asterisks) and interlacing bundles of electron-dense elastin fibers (arrows).

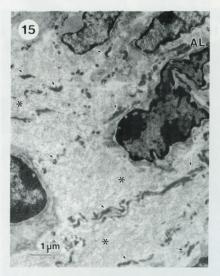


Fig. 15. Trasmission electron microscopy showing the characteristic spiral electron-dense fibers (arrows) and collagen fibers (asterisks) of the stress-bearing Stapediovestibular joint (SVJ) in a b.28.d specimen.