

## LABORATORY EXERCISES FOR LATERAL LINE, LABYRINTH AND COCHLEA

**CVH 157** Catfish lateral line and **CVH 189** trout lateral line, and demonstration slides. Neuromasts are located in a canal running from head to tail on each side of these fish. Can you see a nerve associated with the neuromast? In the trout a pore, joining the canal to the surface, may be seen in some slides. A pore merging with a canal can be seen in the demonstration slides.

**CVH 177, Human 96**, and demonstration of guinea pig cochlea, saccule and utricle. With the aid of the diagrams in your handout and a histology atlas, identify the component parts of these structures. The arrangement of the three ducts making up the cochlea is readily observed. These channels spiral around a thin bony structure called the modiulus. The cell bodies of the afferent neurons innervating the hair cells in the basilar membrane are located in the spiral ganglion in the centre of the modiulus. The macula of the saccule should be clearly visible in at least one of these slides, and is also shown in a demonstration slide. The sensory portion of a crista ampulla can be seen in the demonstration and may also be visible in one of the slides from your box. The wall of the crista may have collapsed against the hair cells because the cupula will probably have been removed during processing of this tissue.

**CVH 61**, dogfish head sagittal section. This section contains a portion of the ventral surface of the head. On this surface are the openings of many canals leading to ampullae of Lorenzini, the electroreceptors used by these animals to hunt for prey. The receptor cells in these structures are deep to the integument, joined to the external environment via canals filled with electrically conductive mucopolysaccharide gel; the overall appearance of these ampullae resemble simple acinar exocrine glands. The receptor cells themselves may be difficult to distinguish from supporting tissues because they do not stain specifically with the stain used on this slide. You may have to check several slides to find a complete ampulla.