

## Lab 13 – The Special Senses

### Eye Anatomy (models and sheep):

- Extrinsic Muscles of Eye (*one model only*)
  - Inferior rectus
  - Inferior oblique
  - Lateral rectus
  - Medial rectus
  - Superior rectus
  - Superior oblique
- Anterior segment/cavity (aqueous humor)
  - Anterior chamber
  - Posterior chamber
- Cornea
- Iris
  - Pupil
- Lens
- Ciliary body
- Posterior segment/cavity (vitreous humor)
- Retina
- Choroid
  - Tapetum lucidum (*sheep eye only*)
- Sclera
- Optic disk (*models only*)
- Optic nerve

### Histology of the Retina:

- Sclera
- Choroid
- Retina
  - Pigmented layer
  - Rods and cones: outer segments
  - Rods and cones: nuclei
  - Bipolar cells (nuclei)
  - Ganglion cells

### Histology of the Taste Buds:

- Papilla
- Taste bud
  - Gustatory cell (nucleus)
  - Basal cell (nucleus)
  - Taste pore

### The Ear Model:

- External Ear
  - Auricle or Pinna
    - Lobule
  - External acoustic meatus
- Middle Ear
  - Tympanic membrane
  - Malleus
  - Incus
  - Stapes
  - Pharyngotympanic Tube
- Inner Ear
  - Oval Window
  - Cochlea
  - Cochlear Nerve
  - Semicircular canals
  - Vestibule
  - Vestibular Nerve

### Histology of the Cochlea:

- Cochlear duct
- Scala vestibuli
- Scala tympani
- Spiral Organ
  - Tectorial membrane
  - Hair cells
  - Basilar membrane
  - Fibers of the cochlear nerve
- Vestibular membrane
- Temporal bone

### Sensory Tests to Perform

<b>Exercise</b>	<b>Activity</b>	<b>Test</b>	<b>Test equipment</b>	<b>Record Results:</b>
18	1	Blind spot mapping	Fig 18.1	pg 318
18	2	Accommodation Near Point	Pin, ruler	pg 319
18	3	Visual acuity	Snellen eye chart	pg 320
18	4	Astigmatism	Fig. 18.4	pg 320
18	5	Color blindness	Color plates	pg 320
18	6	Depth perception	Test tube & pencil	pg 321
18	7	Ophthalmoscopic observation	Ophthalmoscope	n/a
19	2	Otoscopic examination	Otoscope, alcohol swabs	n/a
19	4	Weber test	Tuning fork	pg 331
19	4	Rinne hearing test	Tuning fork	pg 332
19	4	<i>Optional:</i> acuity & sound localization tests		Pg 332
19	4	Frequency range	3 tuning forks	Pg 332
19	6	Romberg test (equilibrium)	Whiteboard, marker	Pg 335
19	6	Role of vision in equilibrium	None	Pg 335
20	5	Olfactory adaptation	Cotton and oils	Pg 345