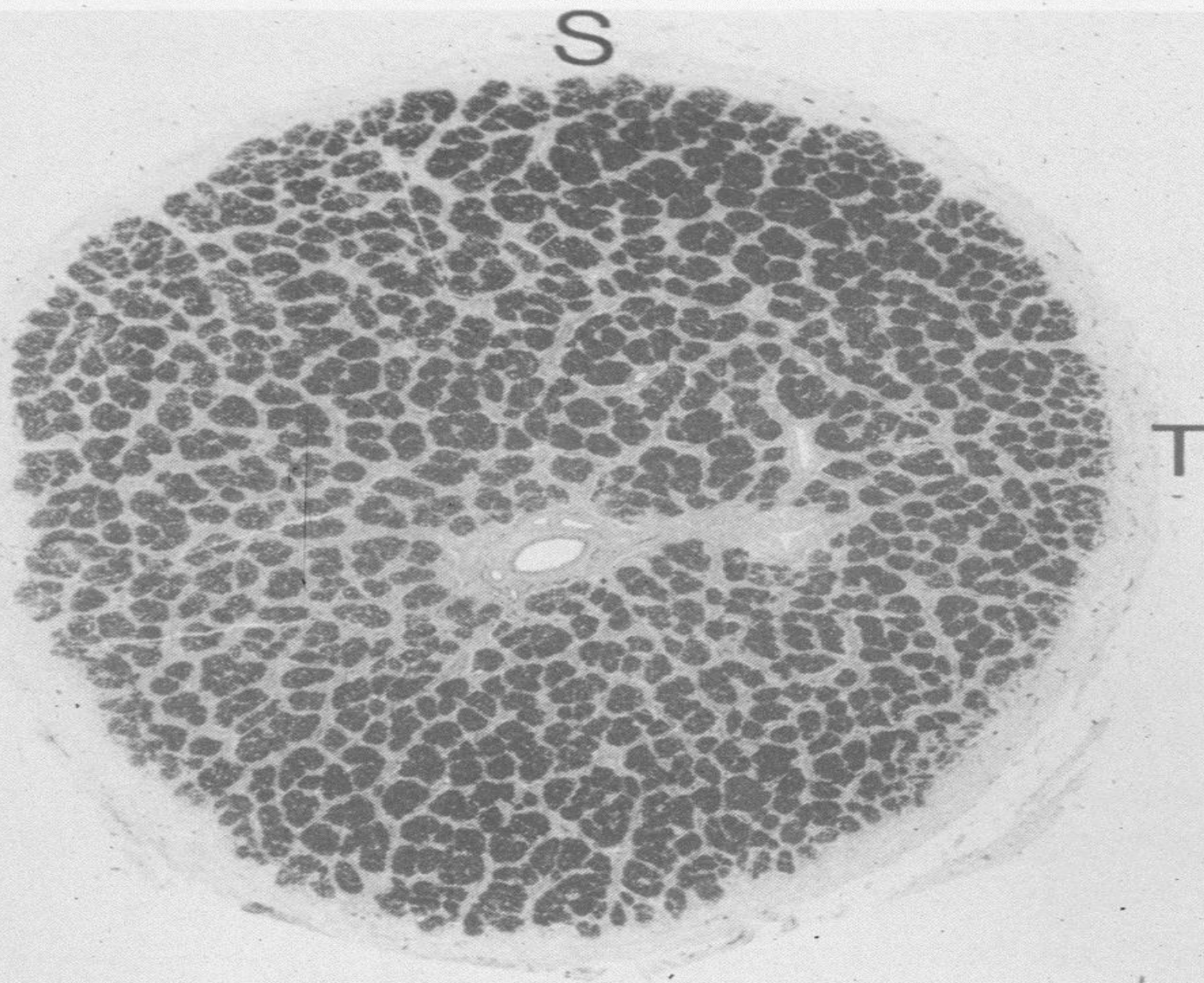


Optic Nerve

Norm Zabriskie, MD

Optic Nerve - Anatomy

- 1.2 million axons
- 1000 fascicles
- Cell bodies – ganglion cell layer of retina
- Axons synapse in the lateral geniculate
- Axoplasmic transport
 - Orthograde – from ganglion cell layer to LGN
 - Retrograde – LGN to ganglion cell body

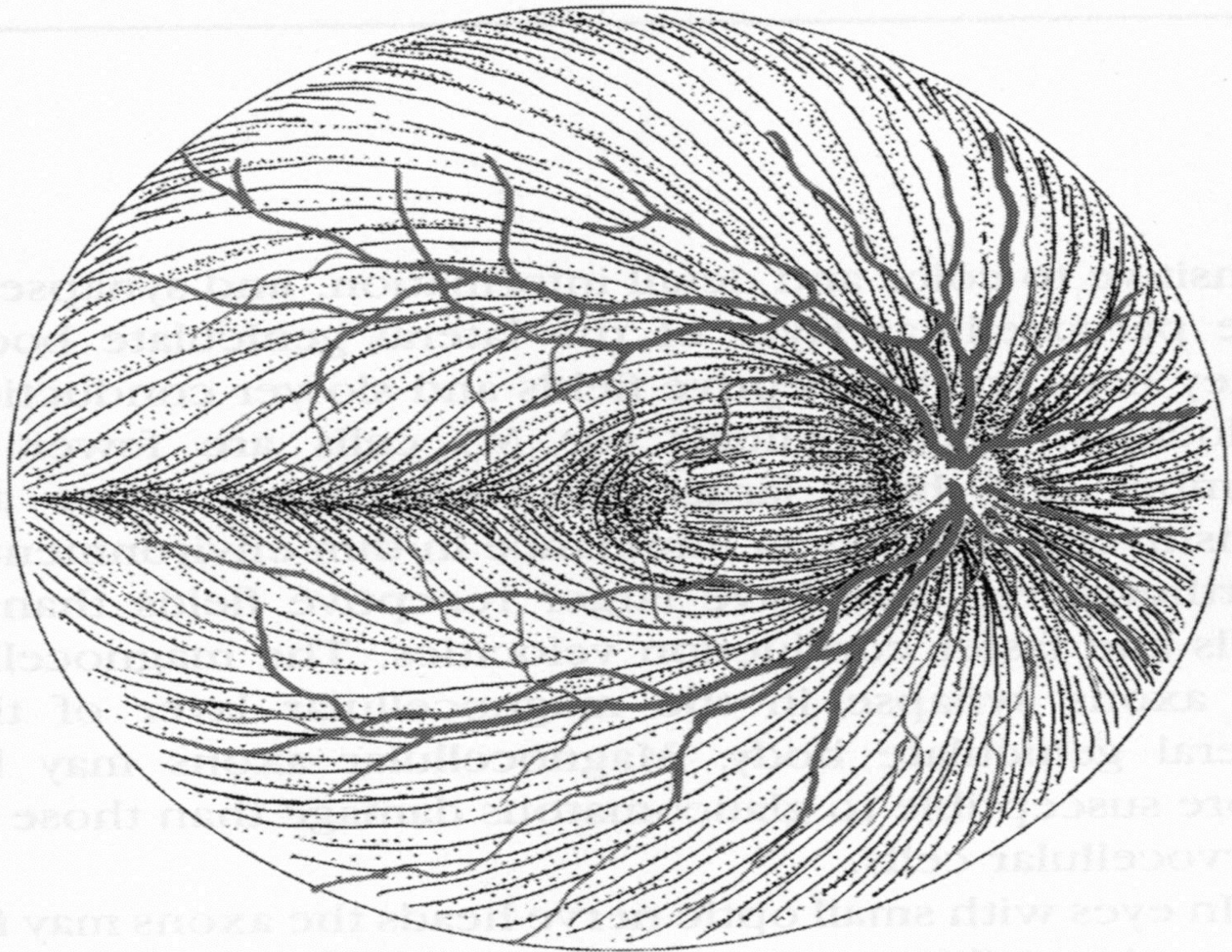


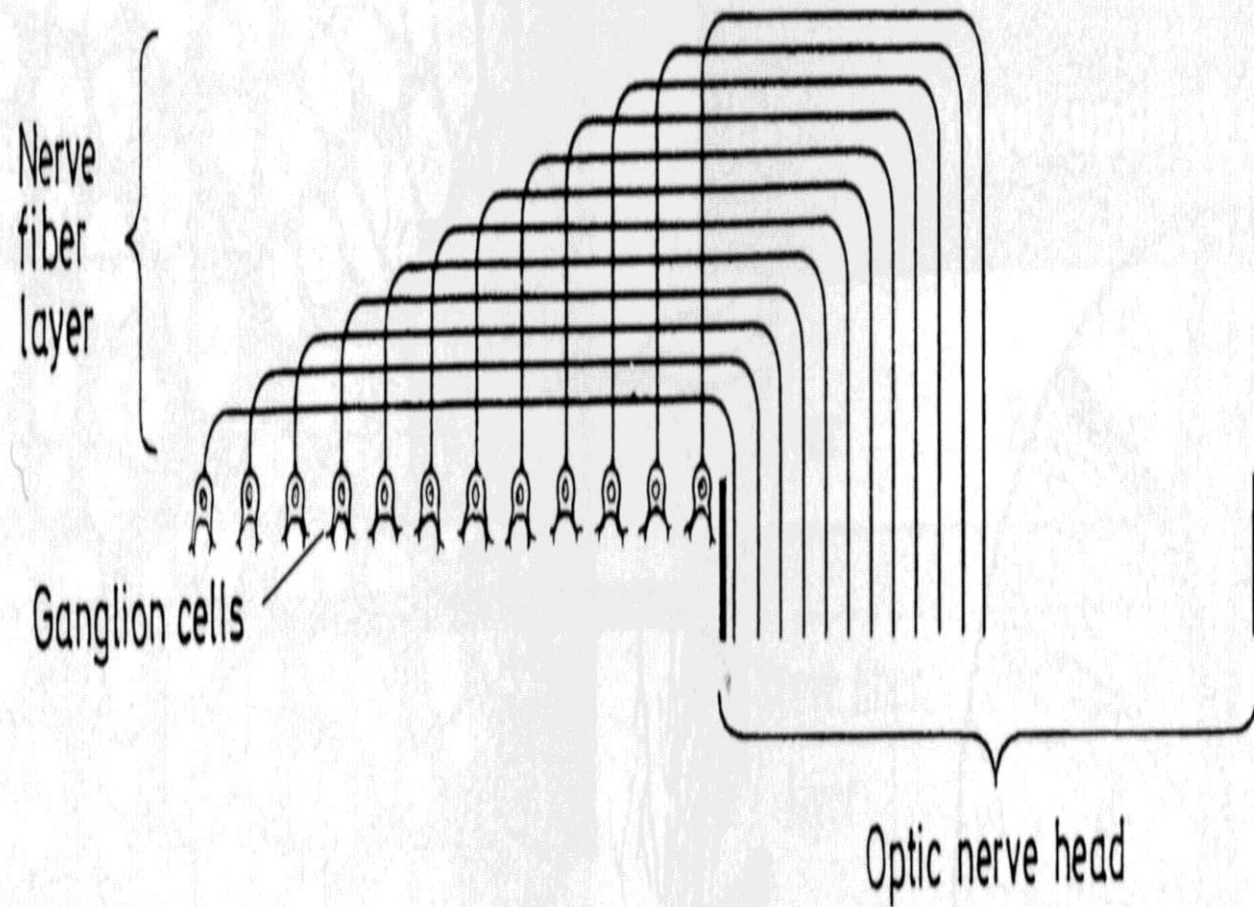
Optic Nerve – Cell Types

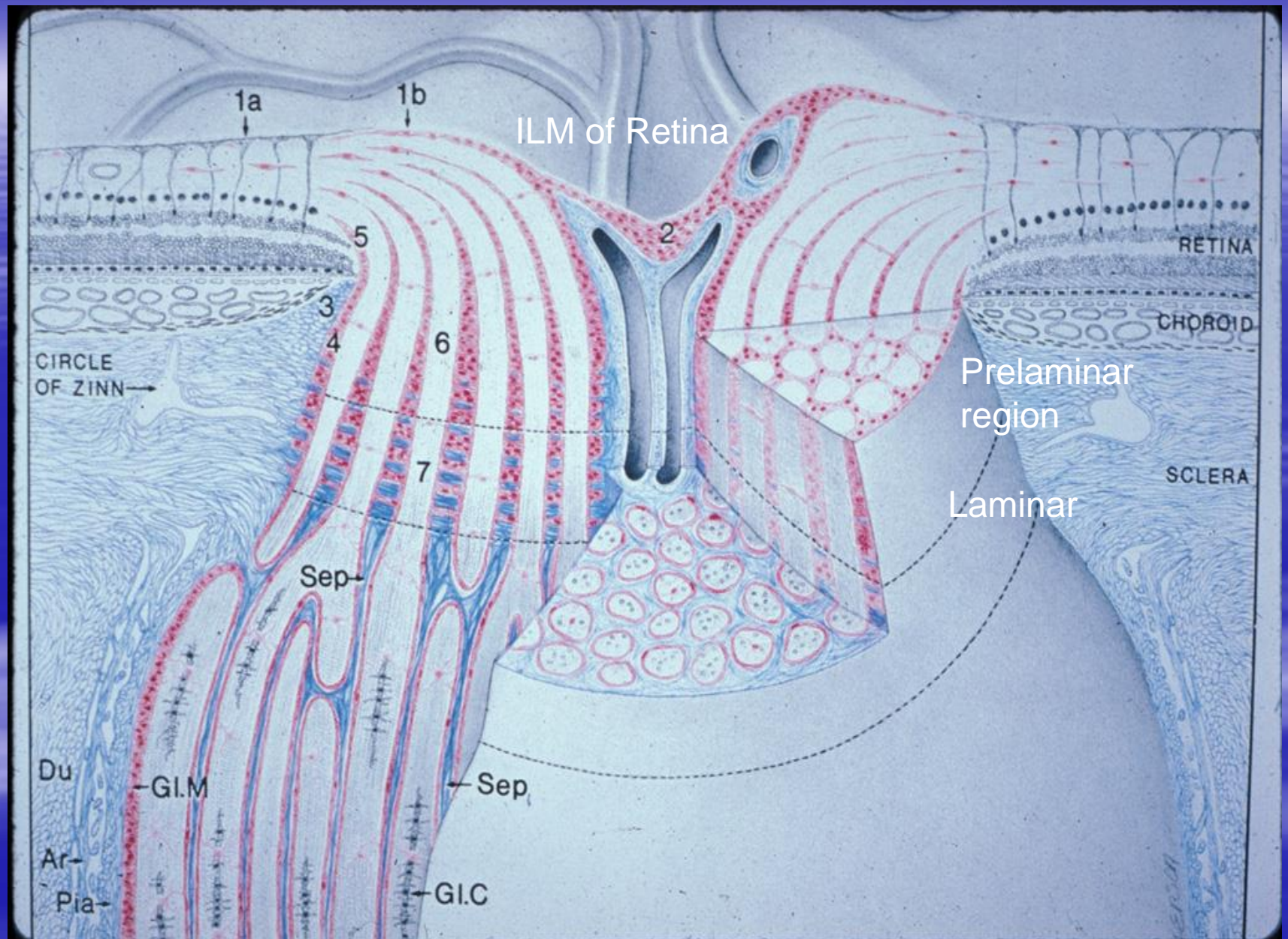
- Parvocellular (P)
 - Most numerous
 - Smaller diameter axons
 - Sensitive to color and detail
 - Smaller receptive fields
- Magnocellular (M)
 - Fewer in number
 - Larger diameter
 - May be more susceptible to glaucoma damage

Optic Nerve – Cell Types

- Bistratified Cells – Koniocellular
 - Process blue-yellow
 - Preferentially activated by short-wavelength perimetry







Optic Nerve – Blood Supply

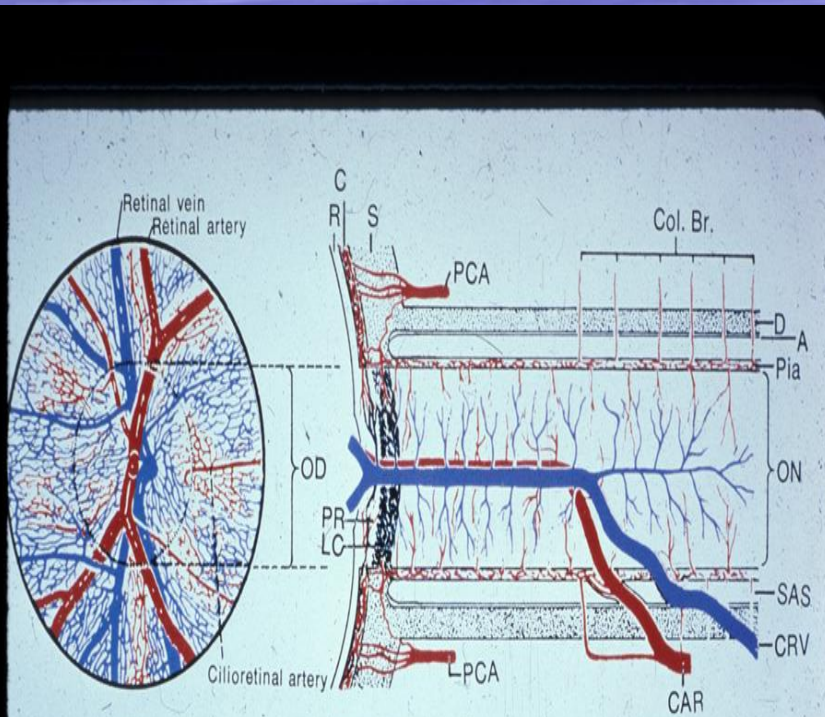


Plate 2. For legend see opposite page.

- Surface NFL – CRA
- Prelaminar – peripapillary choroid and short PCAs
- Lamina – Short PCAs
- Retrolamina – penetrating branches of pial vessels

