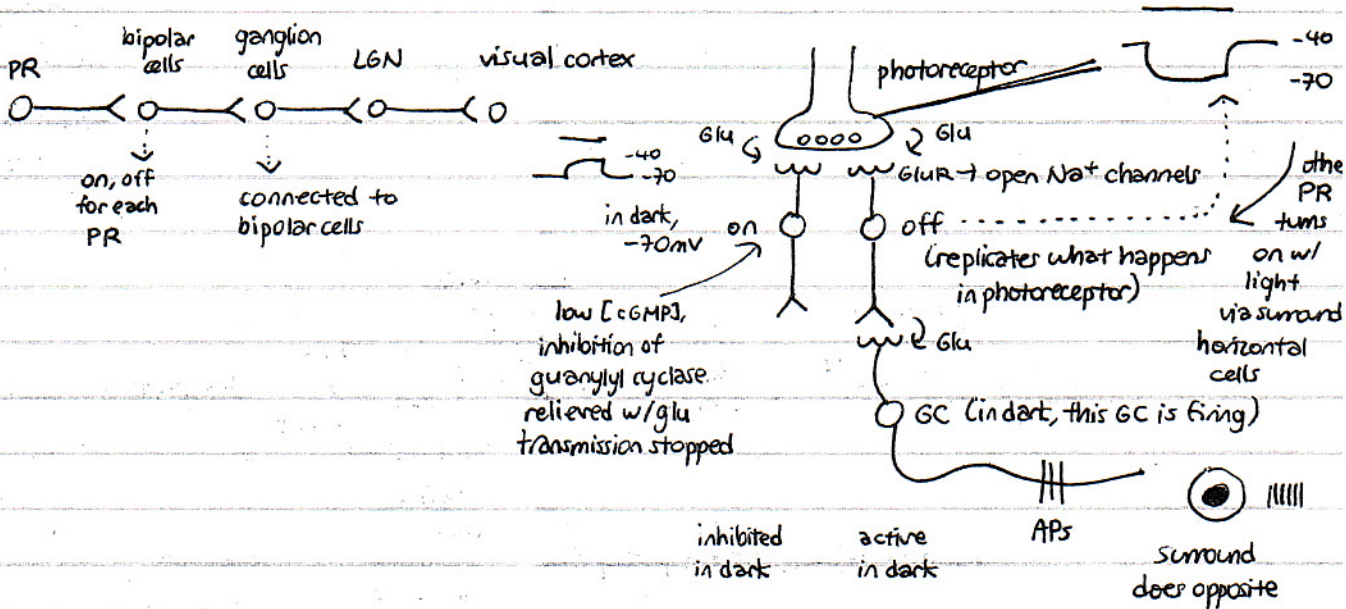
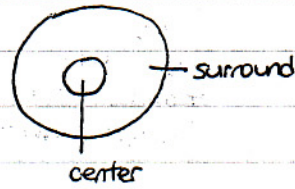


- brain hard-wired to expect certain images, constructs what it expects to see

- on-center & off-center ganglion cells

- off-center: light on, in center, stop firing
- light off, fire (in center)
- light on, in surround, start firing
- light off, in surround, stop firing



ganglion cells: dark

- on-center ||| |||

off-center |||||

- 2 other classes of ganglion cells: (both have on & off-center cells) different roles in vision

Pavo (small)

small receptive field (eg single bipolar cell)

so greater acuity, boundaries

1,000,000

very responsive to color

concentrated in fovea

can have more prolonged firing

(good for stationary objects)

Magno (large)

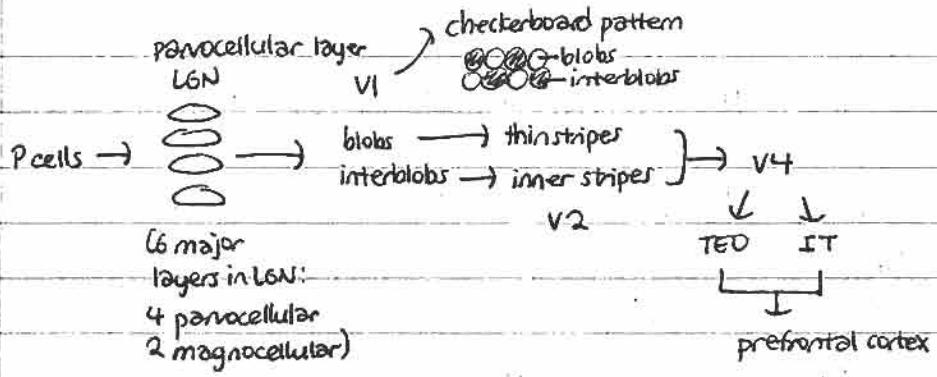
large receptive field (inputs from connect to many bipolar cells)

good for detecting motion

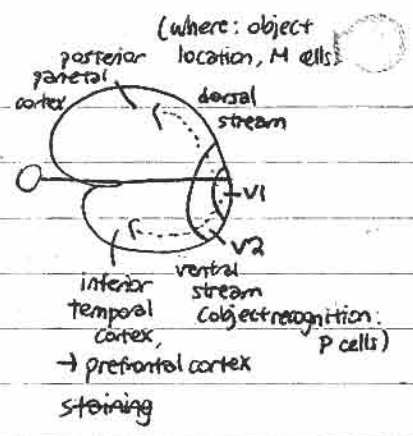
100,000

poorly sensitive to color

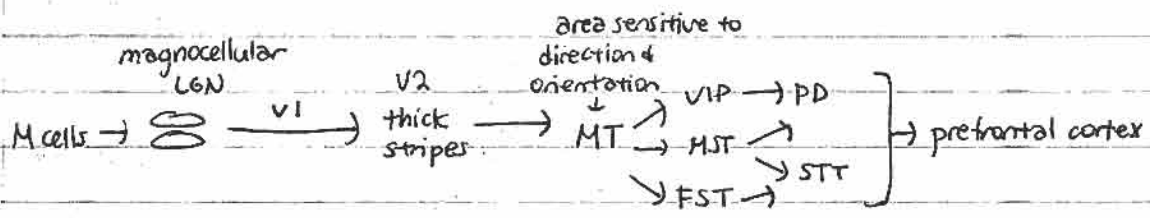
fire transiently & stop (good for motion)



shape, form, orientation, color, high resolution



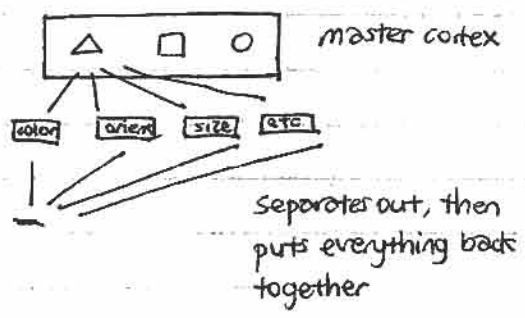
lesions in ventral stream
bilateral lead to agnosias:
object agnosia
color agnosias
facial agnosia
(prosopagnosia)



moving objects, depth perception

each area processes one feature, ignores all else

agnosias:
visuospatial agnosia
movement agnosias



1. preatten preattentive stage
- notice everything vaguely?
2. attentive stage
- ignore all else in visual field