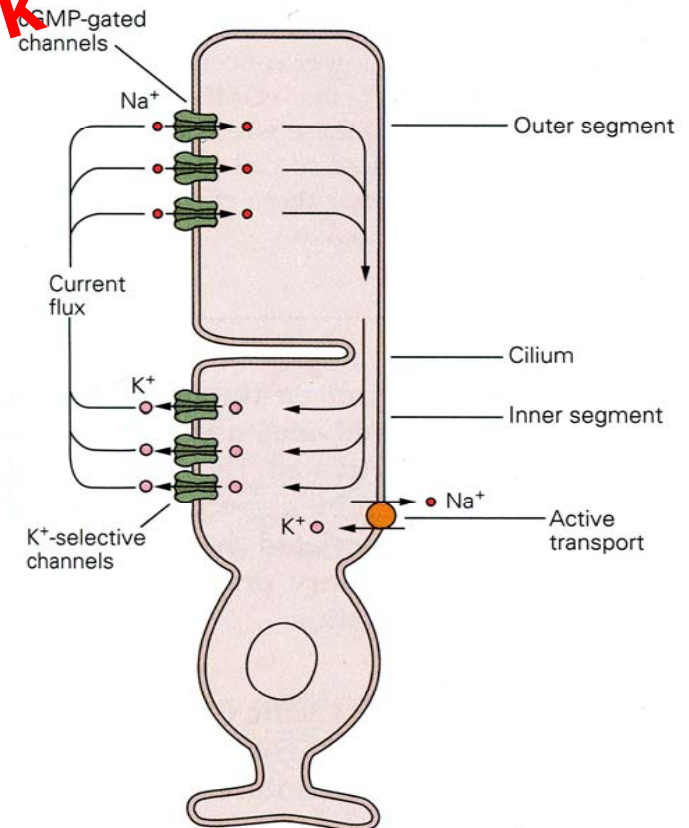


Dark Current: Summary

- $V_m = -30\text{mV}$
- Maintained by:
 - CNG channels
 - High intracellular cGMP
 - Constant Na^+ influx
 - K^+ efflux (I_K)
 - Na^+-K^+ , Ca^{2+} exchanger



...But what happens when the cell leaves the dark cycle and enters the light?

Light Stimulation

- cGMP levels are decreased
- CNG channels close
 - Exchanger is still working!
- Membrane becomes more negative
 - **HYPERPOLARIZED!**
- Less calcium in the cell
- Less release of Neurotransmitter

Who is involved in this process?