Fig. A

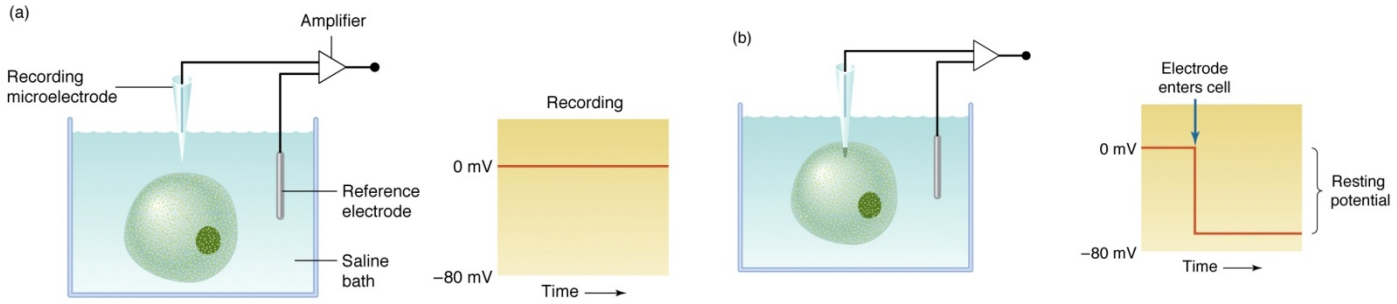


Fig. B

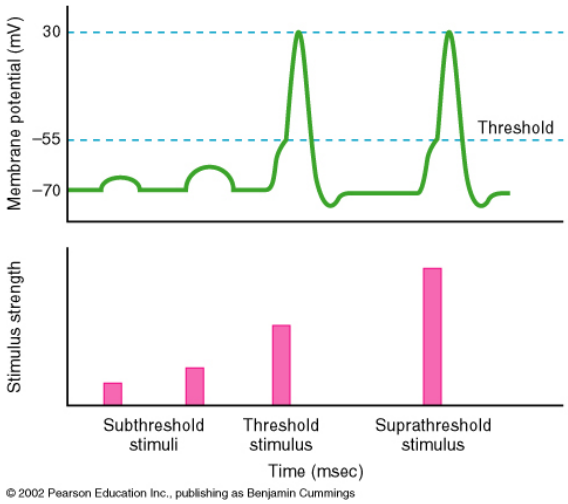
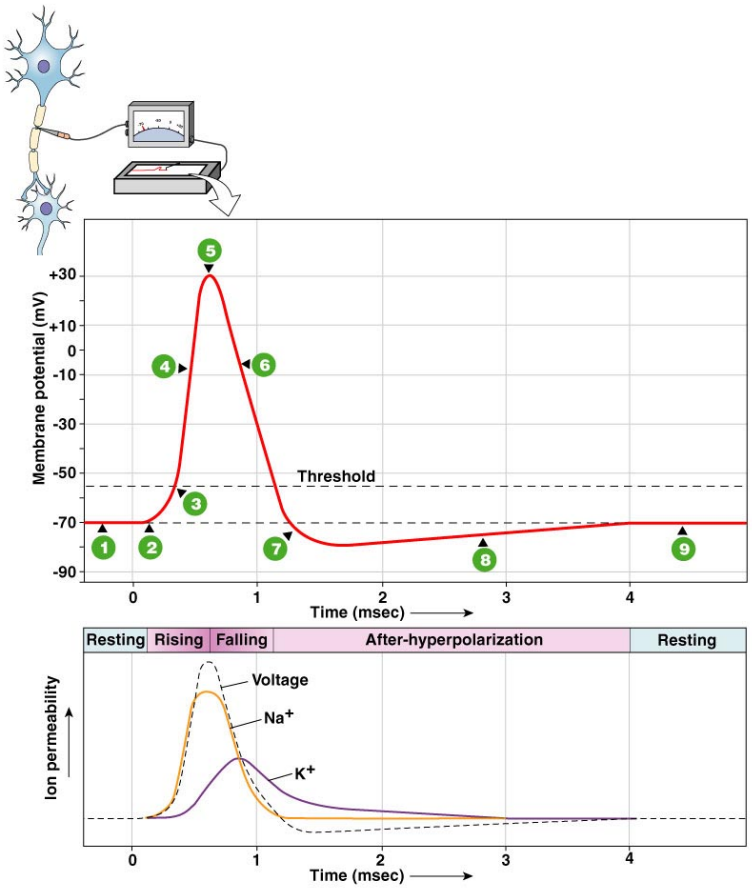


Fig. C



1. Resting membrane potential
2. Depolarizing stimulus
3. Membrane depolarizes to threshold. Voltage-gated Na^+ channels open and Na^+ enters cell. Voltage-gated K^+ channels begin to open slowly.
4. Rapid Na^+ entry depolarizes cell.
5. Na^+ channels close and slower K^+ channels open.
6. K^+ moves from cell to extracellular fluid.
7. K^+ channels remain open and additional K^+ leaves cell, hyperpolarizing it.
8. Voltage-gated K^+ channels close, less K^+ leaks out of the cell.
9. Cell returns to resting ion permeability and resting membrane potential.

Fig. D

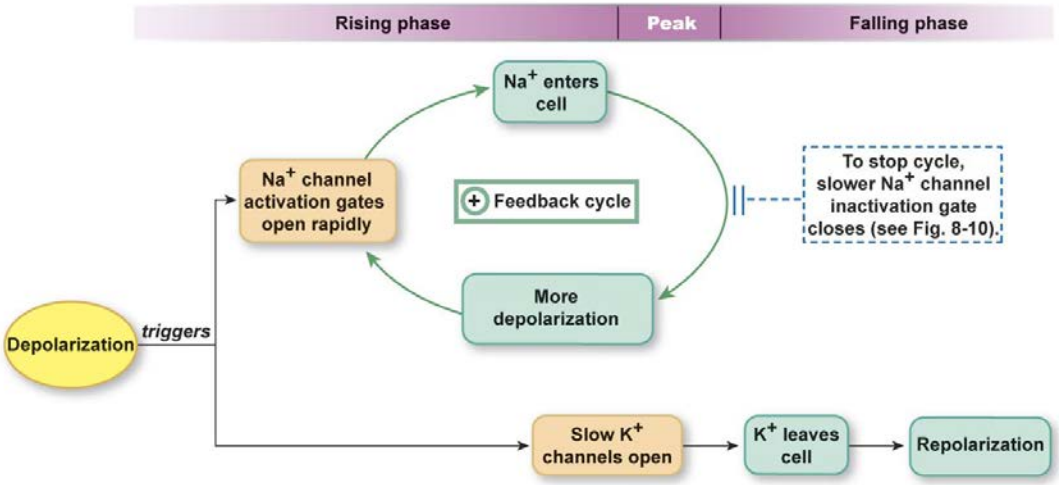


Fig. E

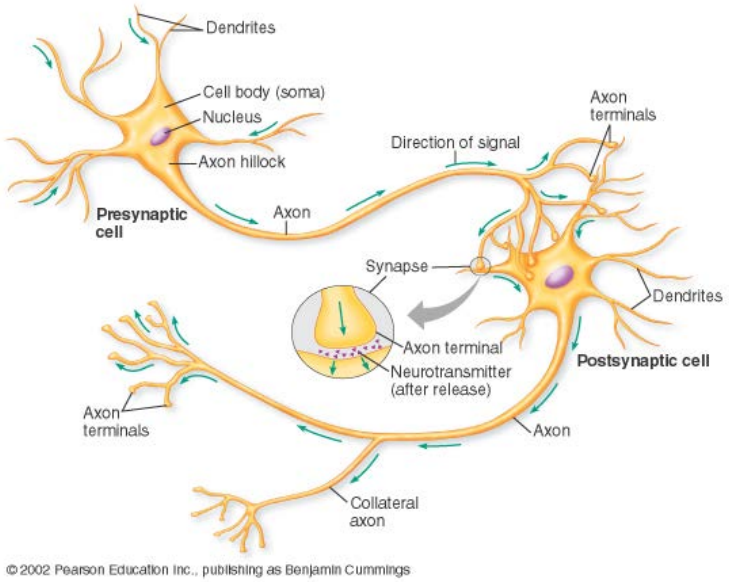


Fig. F

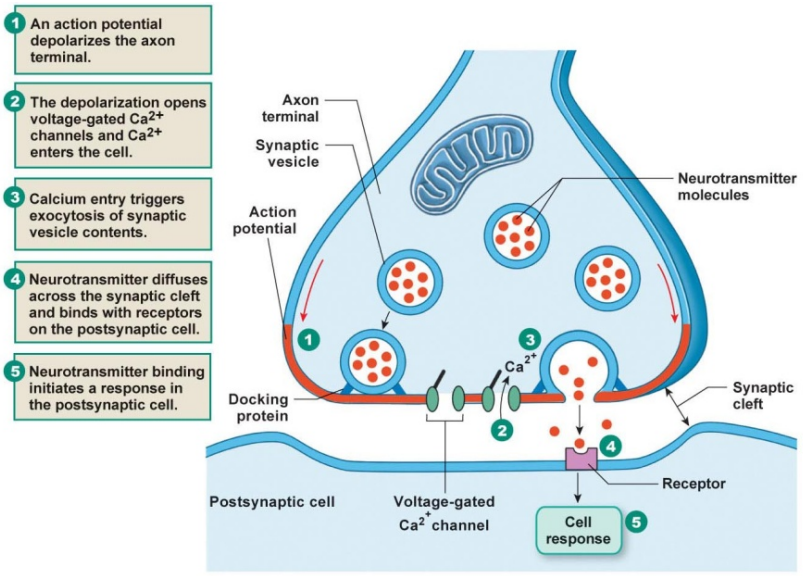
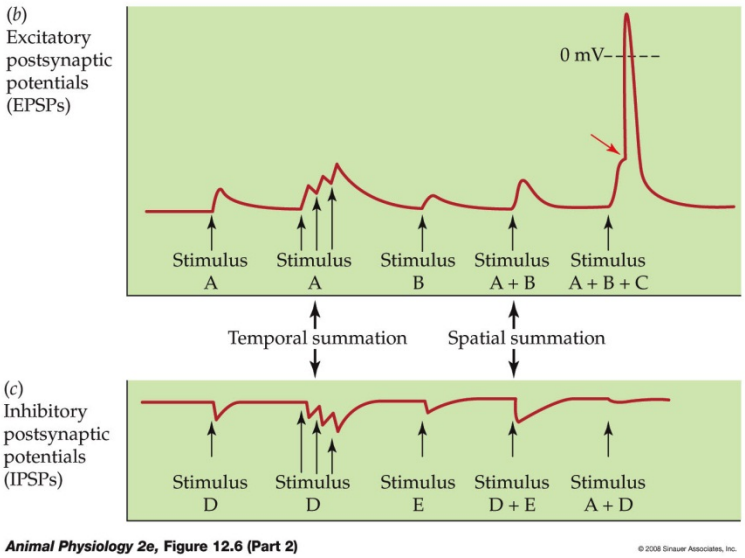


Fig. G



***Animal Physiology 2e*, Figure 12.6 (Part 2)**

Fig. H

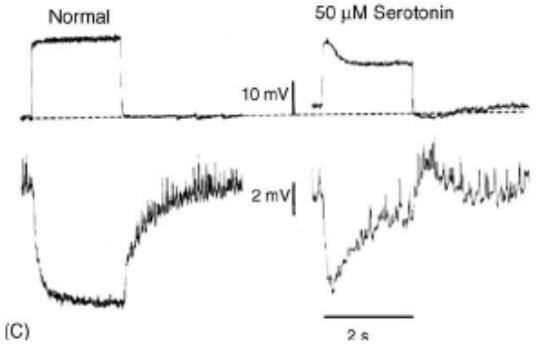
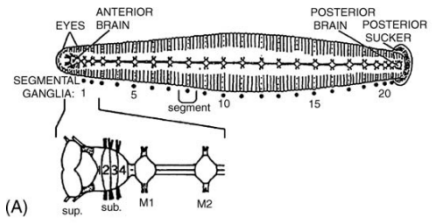
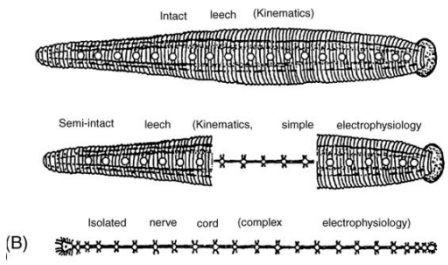


Fig. I





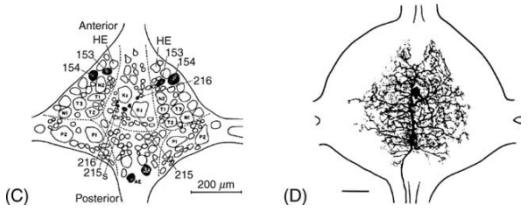


Fig. J

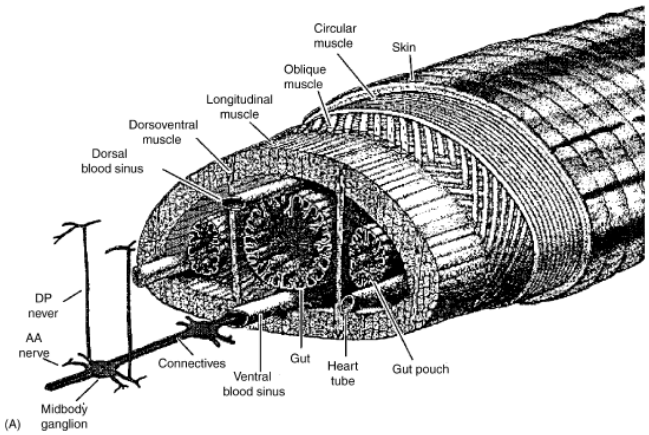
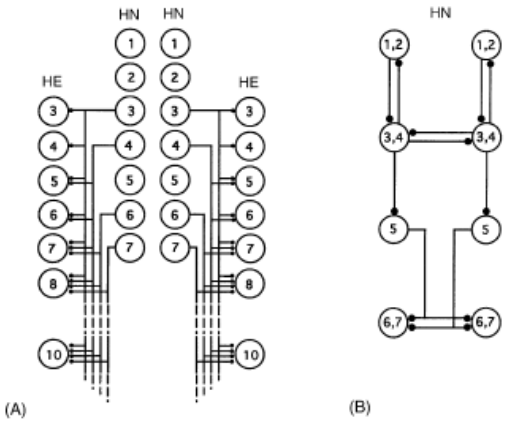


Fig. K



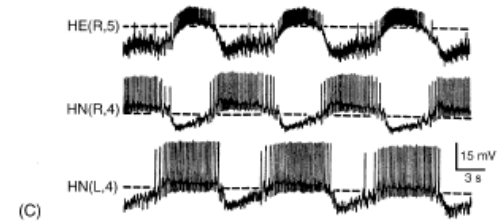


Fig. L

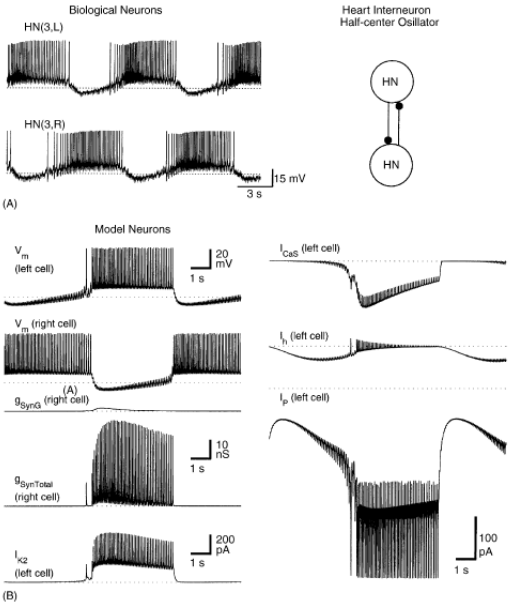


Fig. 6. Synaptic conductances and some major intrinsic currents that are active during a single cycle of a two cell (half-center) heart IN oscillator model (Hill et al., 2001). (A) Biological neurons. (B) Model neurons. The graded synaptic conductance (g_{SynG}) is shown at the same scale as the total synaptic conductance ($g_{SynTotal}$), which is the sum of the graded and spike-mediated conductances. The slow calcium current (I_{CaS}), the hyperpolarization-activated current (I_h), and the persistent sodium current (I_P) are shown to the same scale. Note that I_P is active throughout the entire cycle period.