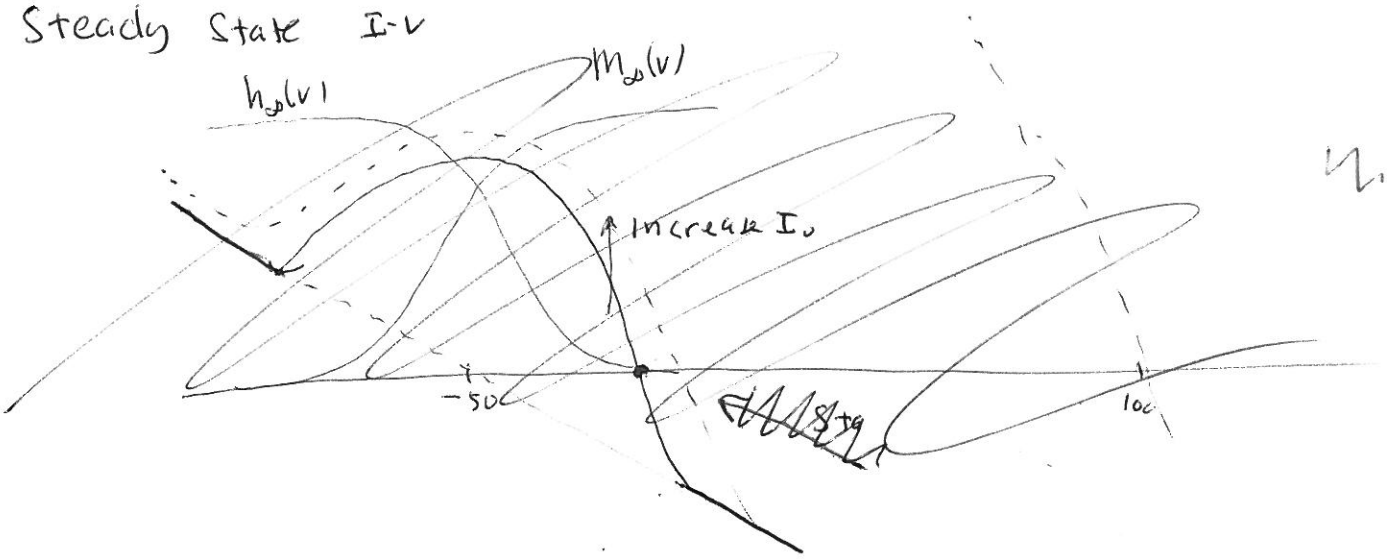
Simplified model

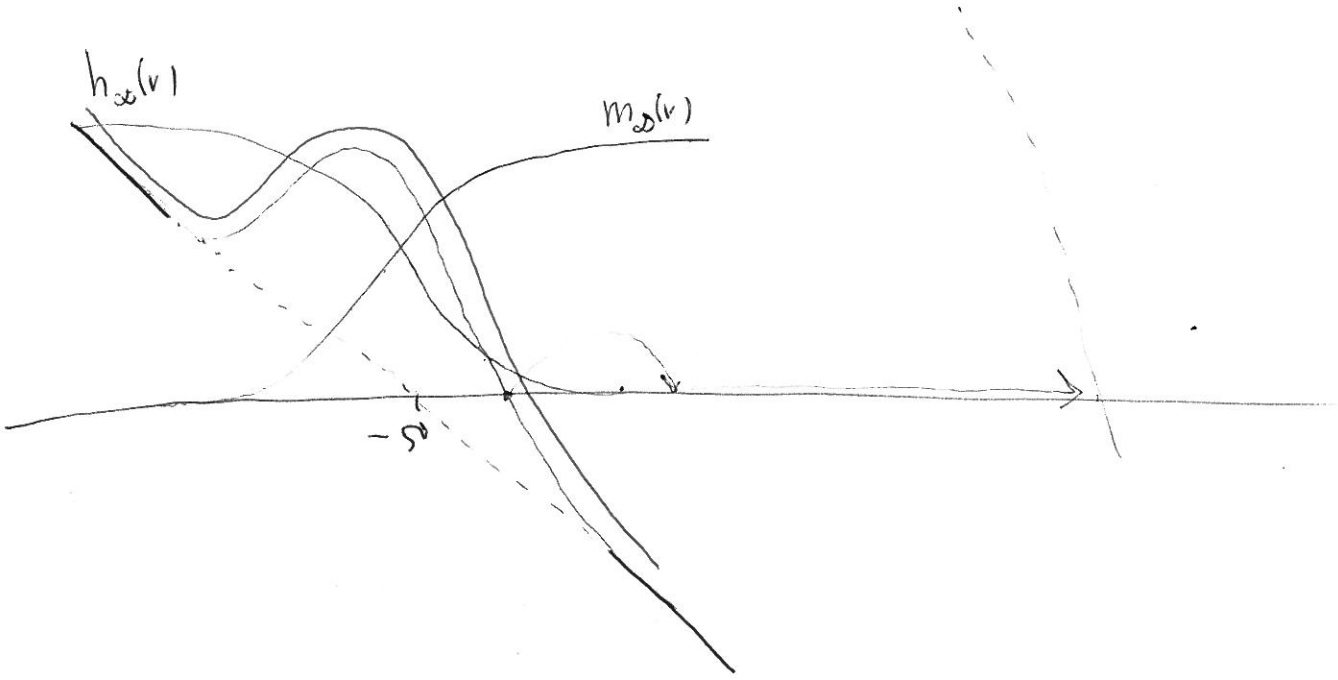
$$C\frac{dv}{dt} = -g_L(v-\Sigma_L) - \bar{g}_{Na}\, m_\infty^3(v)\, h\,(v-\Sigma_{Na}) + I_0$$

$$\tau_h(v)\frac{dh}{dt} = h_\infty(v) - h$$

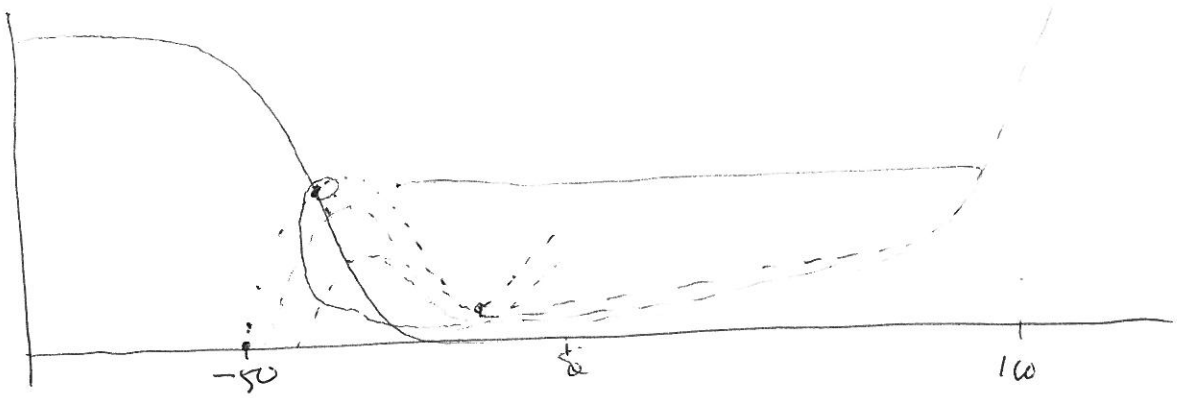
Work this out in detail!!

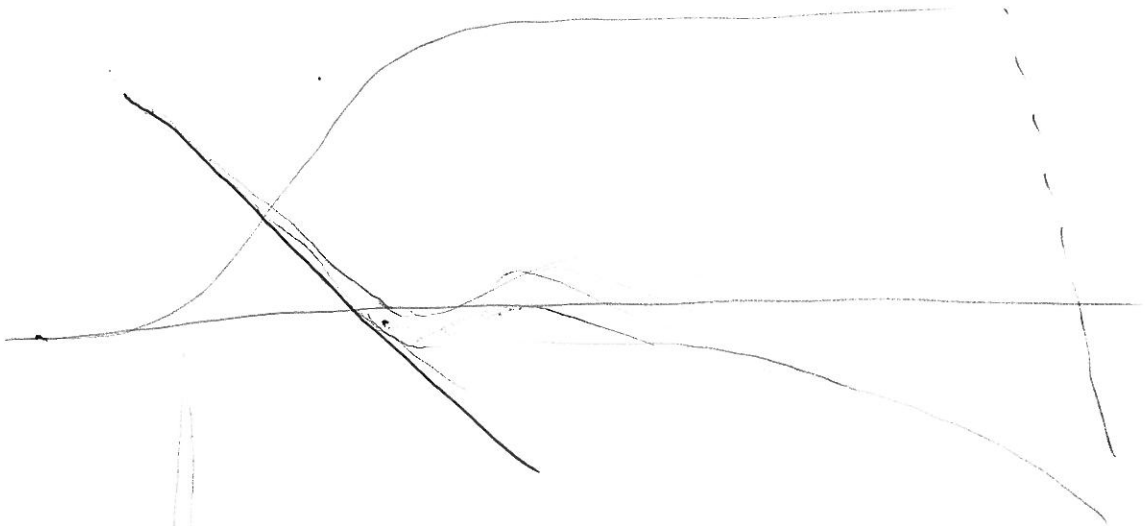
Steady state I-v

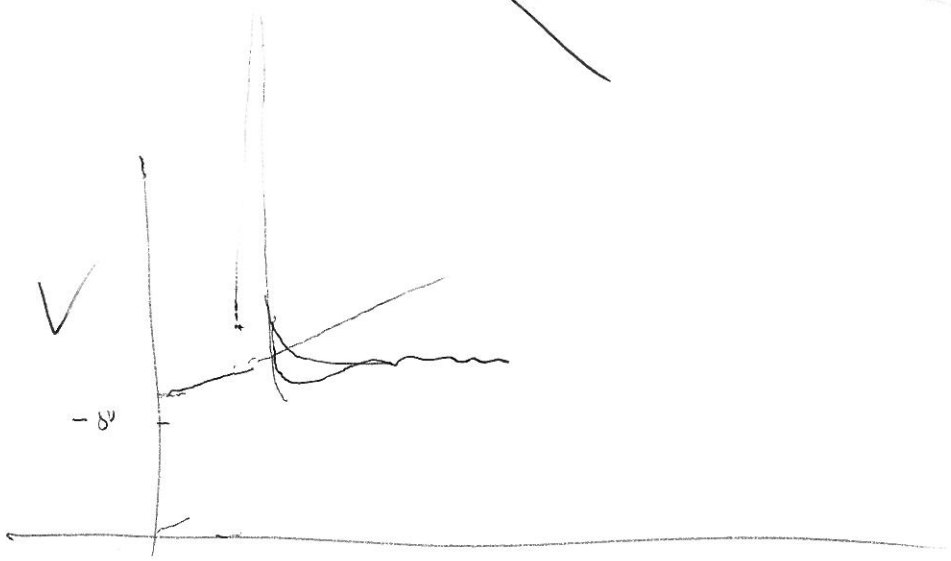




2A







1. $n=1$ long (or 1-5, ...)
2. activation
3. models for P_r
4. NMDA, AMPA, ... facs
5. models for ~~P~~ transmiss : $\dot{x} = \ldots$
6. Complete eqns. for brain
7. LTP
   a) Hebb : Bliss + Thom.
   b) fundamental unsolv ← polit. norm
   c) Bcm
   d) Still unstable ← slide thres
   e) STDP : stabilizes
   d) hard to explain w/ simple mod
   e) problem of maintenance (Abbott)
   f) Correlation learning rule,