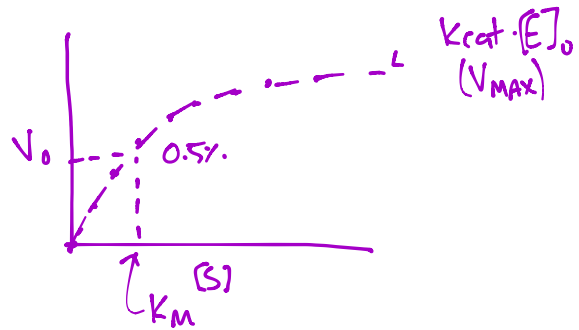
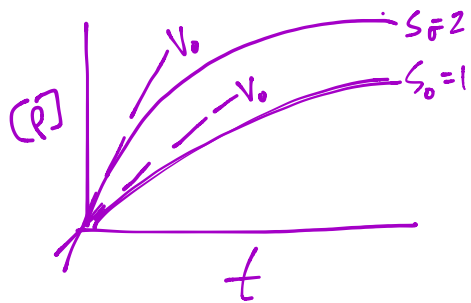


WE WANT TO KNOW k_{cat} AND K_m .
HOW TO MEASURE?

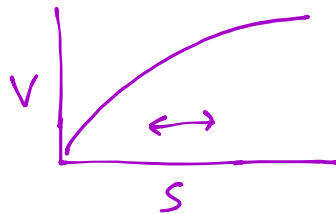
NOTE AXES



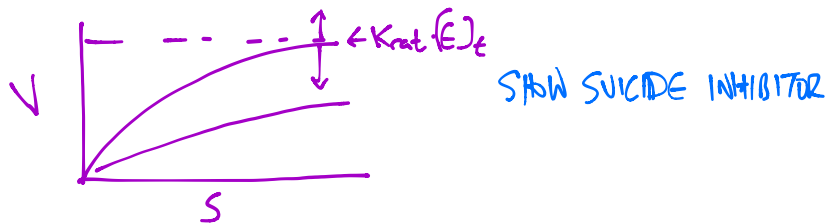
HOW DO CELLS CONTROL V ?

$$V = k_{cat} \cdot [E]_T \cdot \left(\frac{[S]}{[S] + K_M} \right)$$

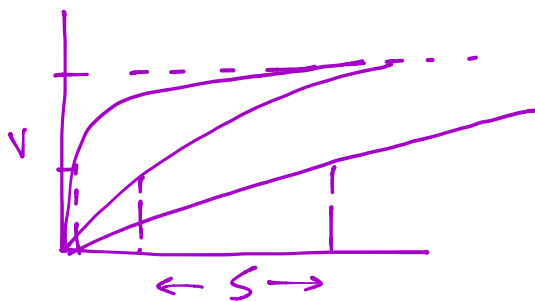
$[S]$: USE OTHER PARTS OF NETWORK TO CHANGE RATE
(SHOW CASCADE)



$[E]_T$: CHANGE PROTEIN SYNTHESIS (\uparrow) DEGRADATION (\downarrow)
SUICIDE INHIBITOR (\downarrow)

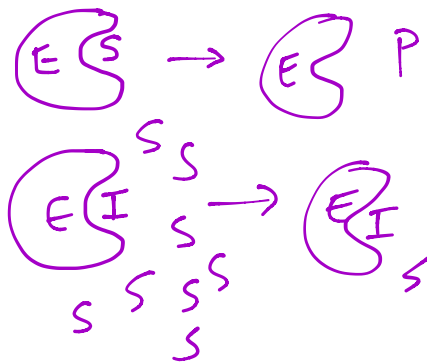


K_M :

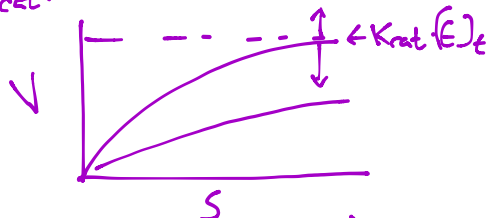


$\downarrow K_M$ BECAUSE S MUST DISPLACE
PROTEASE ANALOG...

(\downarrow): COMPETITIVE INHIBITOR.
- SUBSTRATE ANALOG.



k_{cat} :



- NOTHING LIKE " S "
- BINDS AT A DIFFERENT SITE.

\downarrow NONCOMPETITIVE INHIBITOR.

