

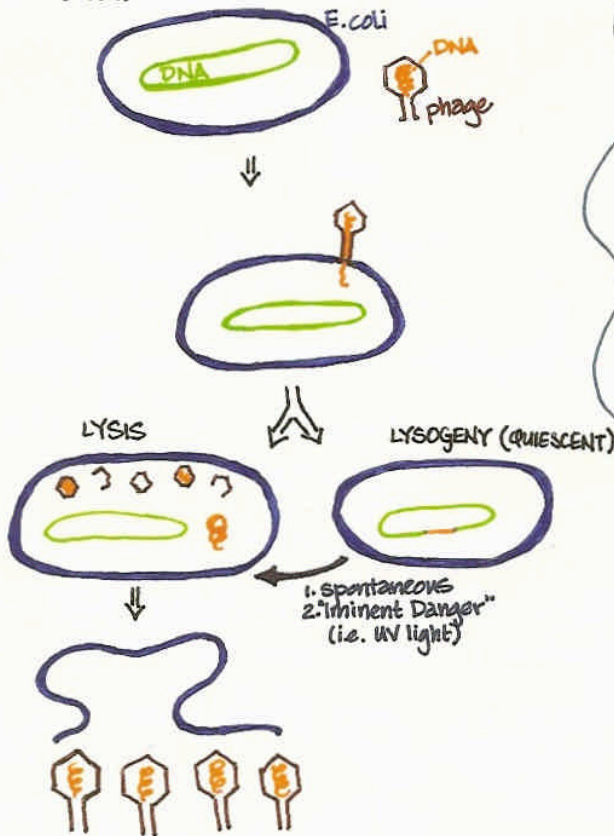
# INTRODUCTION TO BIOLOGICAL NETWORKS

- Read inputs from environment
- Process inputs (signal transduction)
- Result in some change in system (output)

Information transfer:

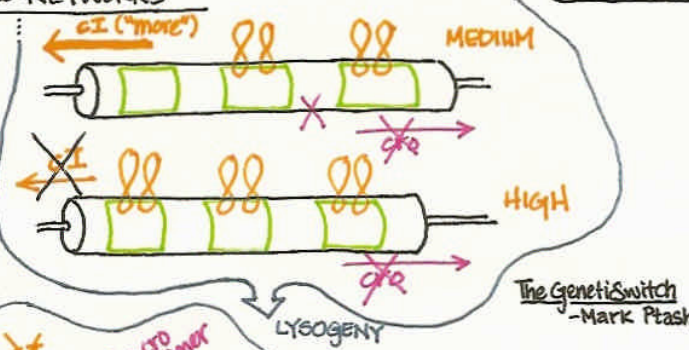
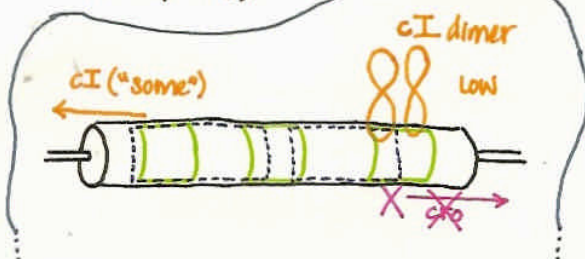
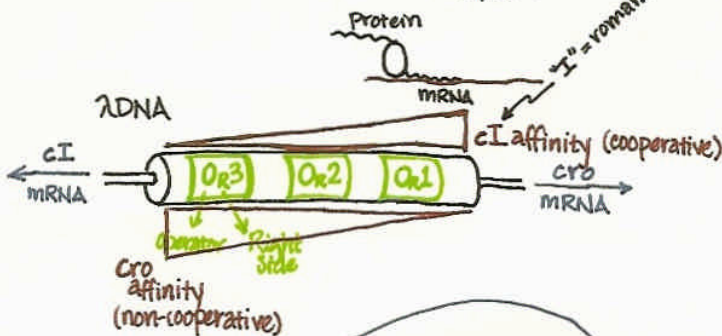
- mechanical
- electrical
- \* chemical

## BACTERIA INFECTED WITH PHAGE $\lambda$ (E. coli)

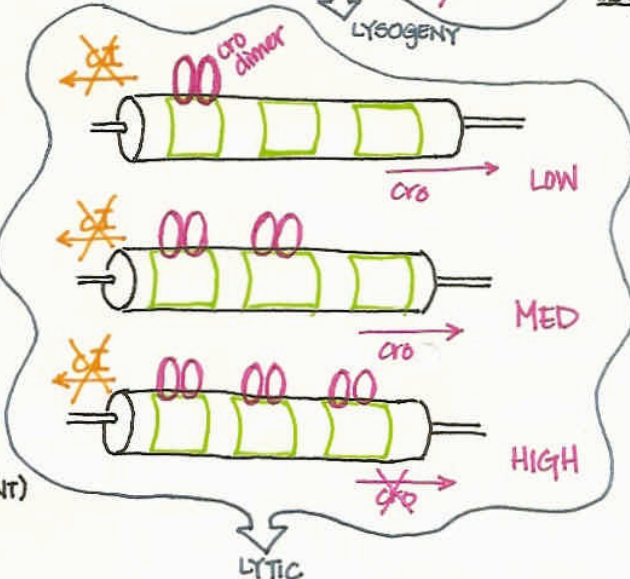


## CENTRAL DOGMAT:

DNA  $\xrightarrow{\text{RNA polymerase transcription}}$  mRNA  $\xrightarrow{\text{ribosome translation}}$  Protein

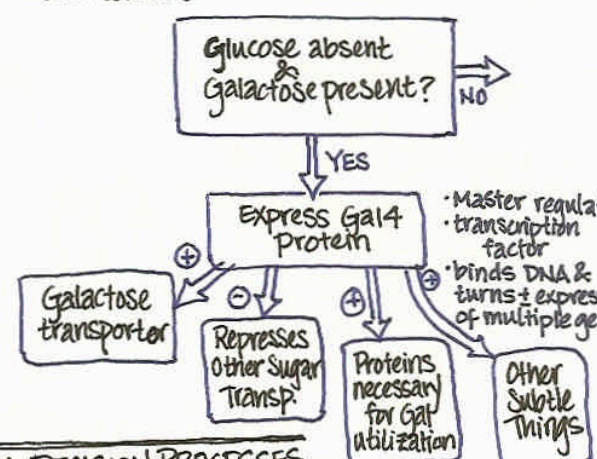


The Genetic Switch - Mark Ptash



## YEAST GROWTH ON DIFFERENT CARBON

- Glucose - most readily utilized
- when no glucose, then utilize other food sources



## CELL DECISION PROCESSES

