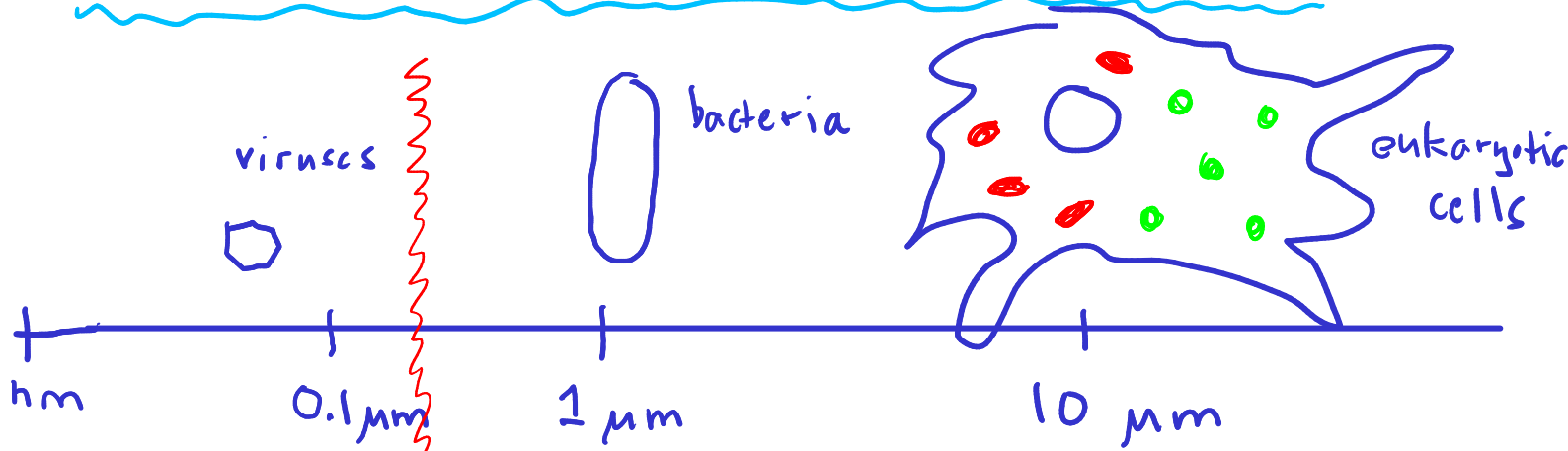


# PHYS 320/420 : Lecture 12



prions:  
infectious  
proteins

non-  
life

life

giant  
viruses

mitochondria :

Supremely  
useful  
sources of

chloroplasts

ATP  
production  
for  
host  
cell

transposons :  
short stretches  
of DNA  
that act like  
"genetic  
parasites"

former bacteria  
that grew into  
a symbiotic relation  
w/ host cells

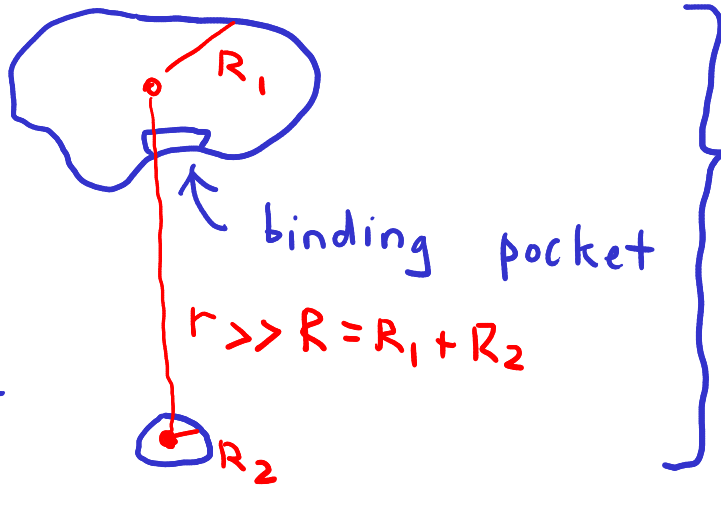
Next steps:

- ① molecules meet each other ✓
- ② they stick
- ③ reactions occur, unbinding
- ④ cycles of reactions (driven by ATP)

What happens after diffusion?  
"Sticking" or binding

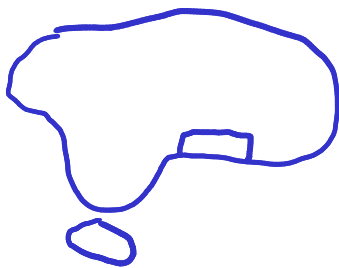
three state picture:

target  
(protein)

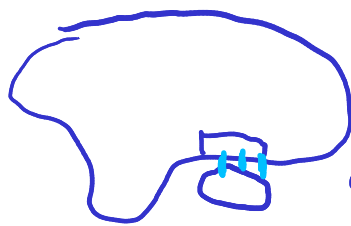


State 1:  
FAR

searcher  
(ligand)



State 2:  
NEAR



State 3:  
BOUND

correct  
orientation  
& location