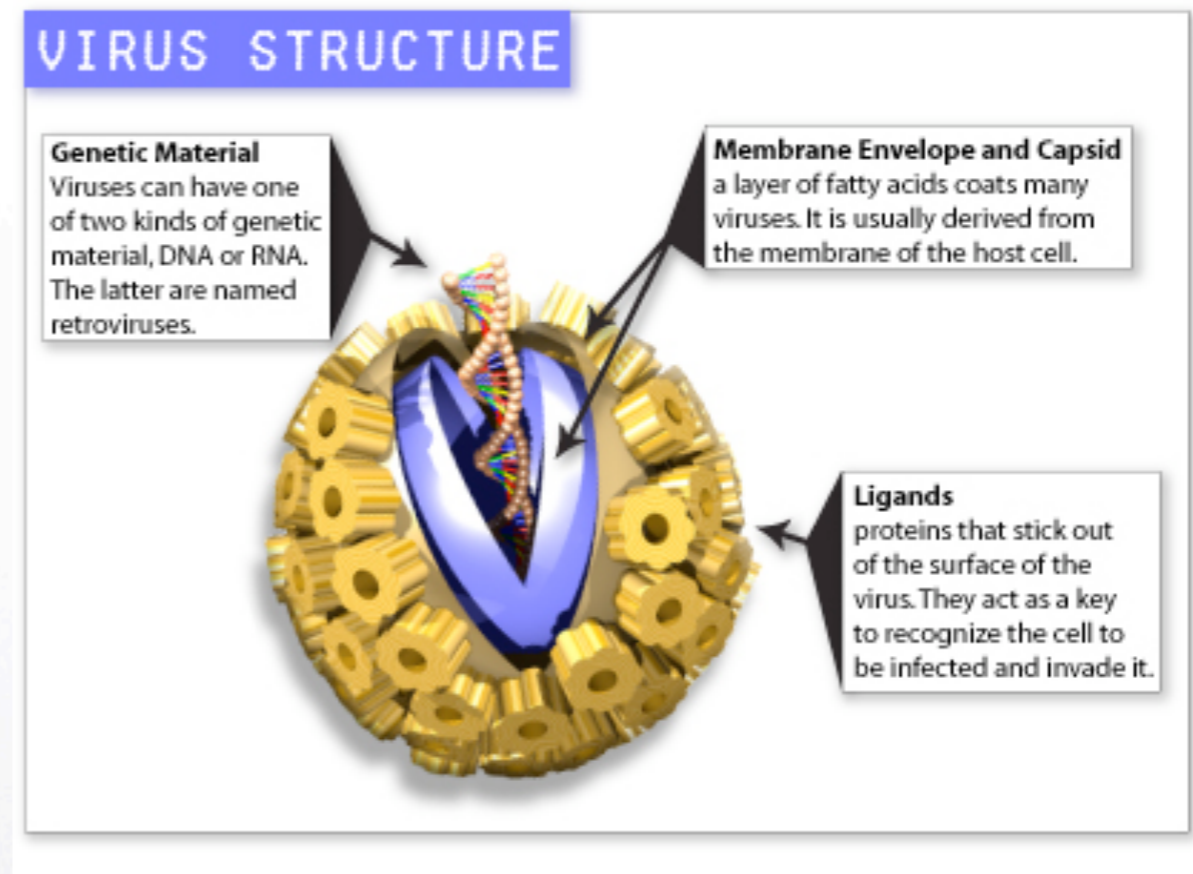
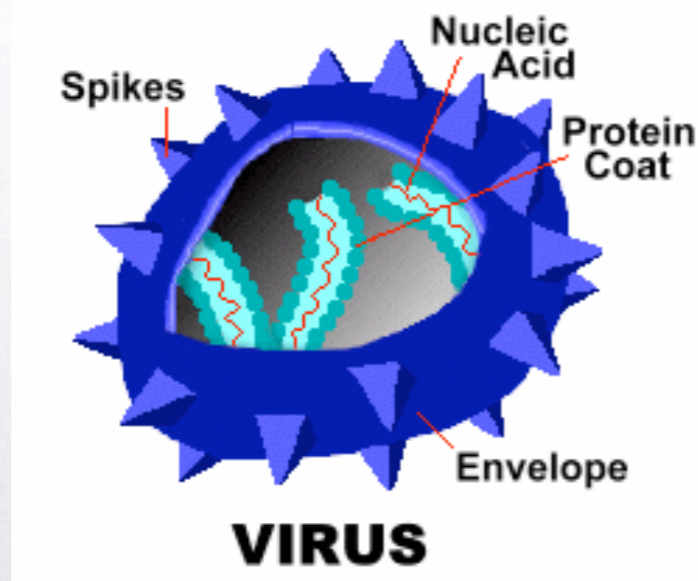


# Viruses

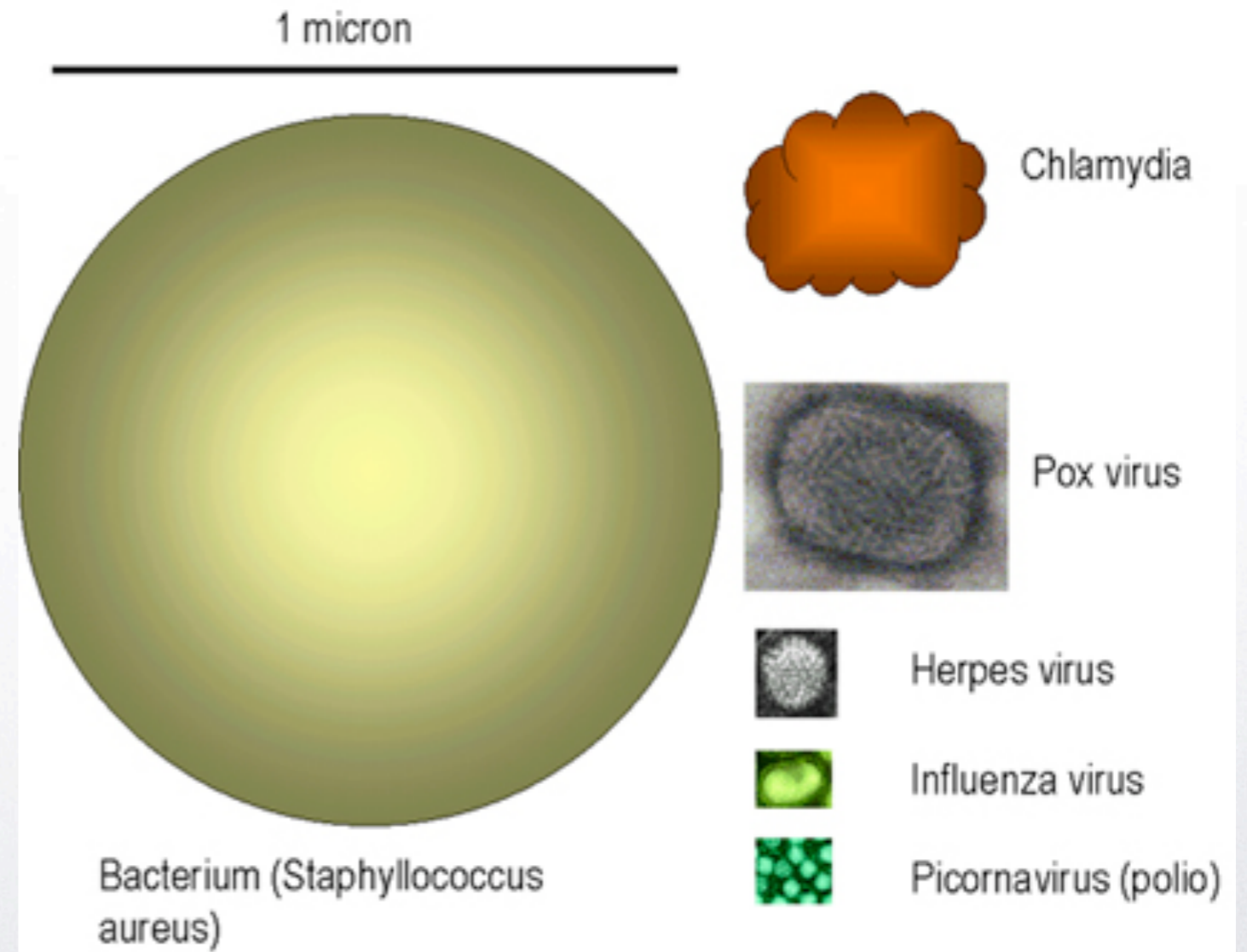
- nucleic acids (genetic material) enclosed in protein coat





# Viruses

- much smaller than bacteria





# Are Viruses Alive





# Are Viruses Alive

- do they follow the characteristics of life?
  - adaptation?
  - reproduction?
  - metabolism?
  - homeostasis?
  - cellular organization?
  - growth?
  - respond to environment?
- viruses need to find a host cell in order to do any of these things



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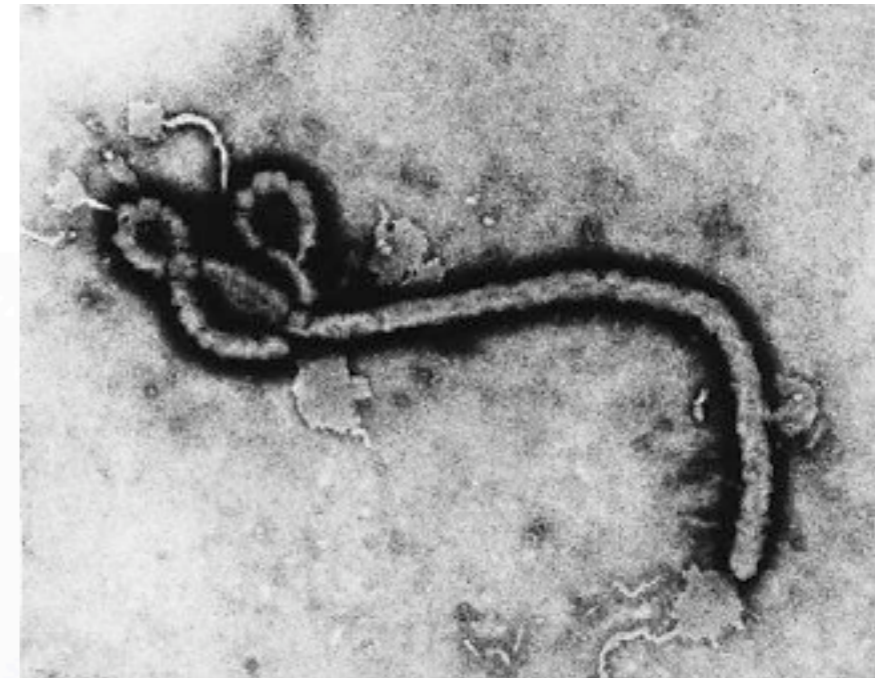
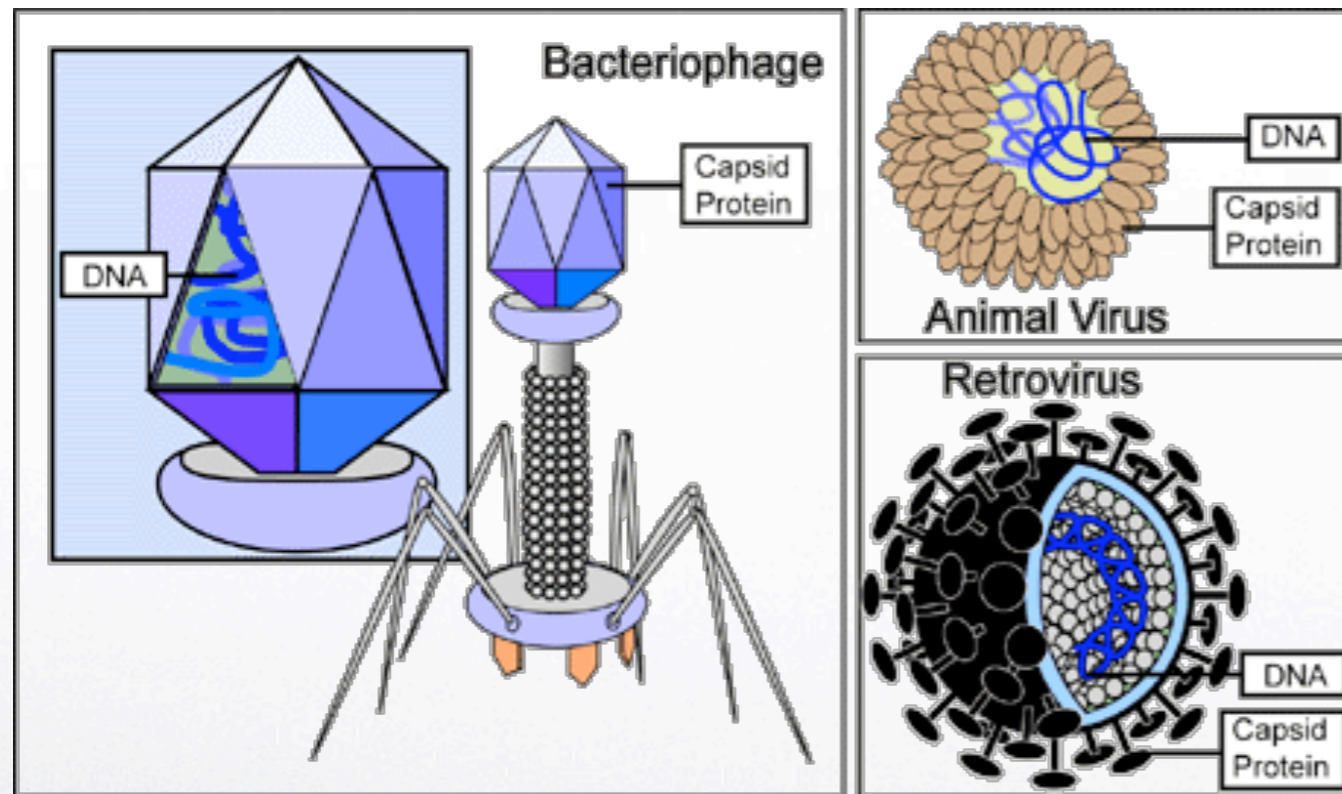


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# Different Viral Shapes

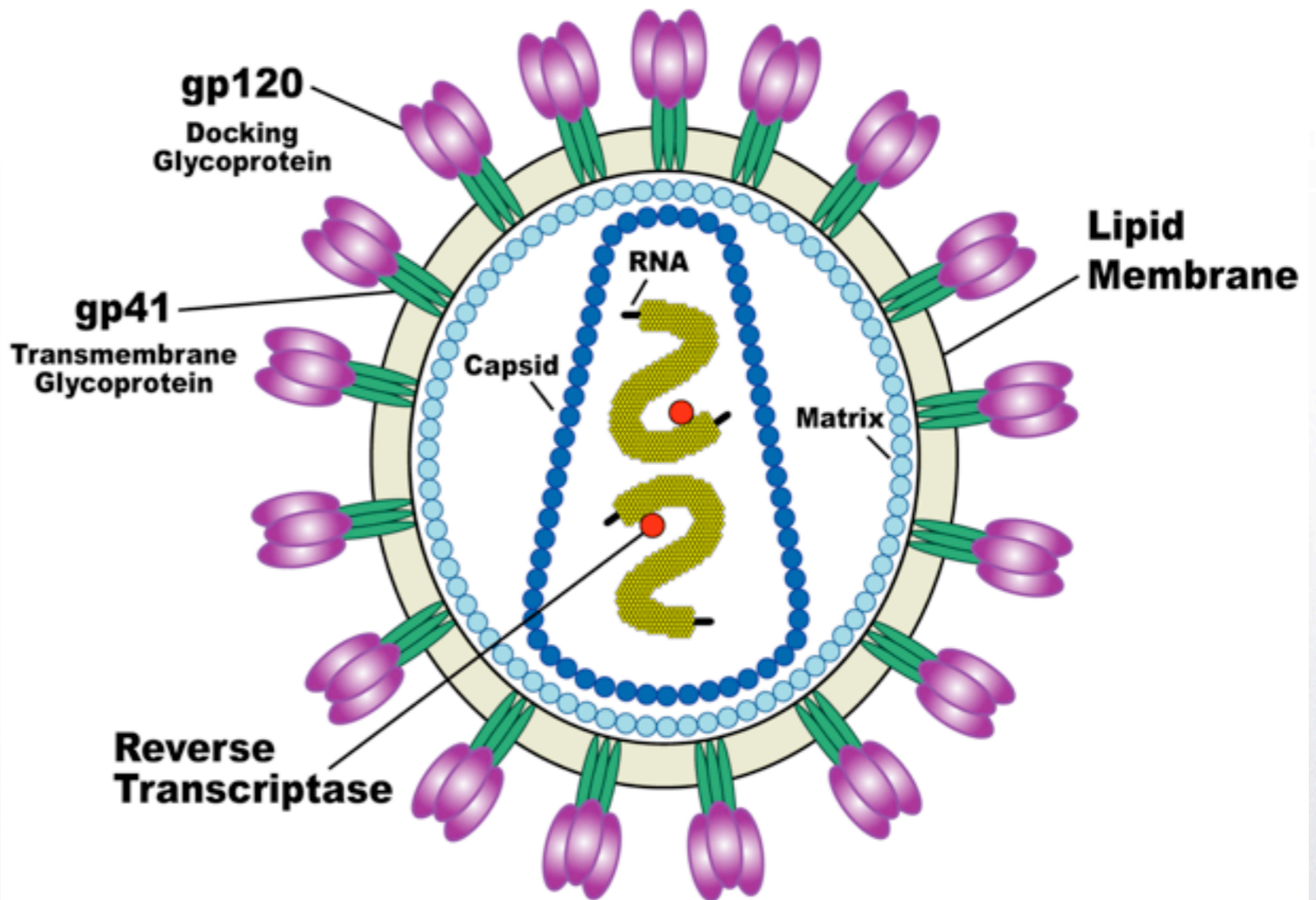


HIV-  
death rate = 100%

↑  
ebola virus-  
death rate=90%

# HIV

- The virus that causes AIDS
- is a retrovirus
- glycoproteins on plasma membrane





# HIV

- HIV infects only helper T- cells
- called retrovirus b/c once it is in the host cell,
  - viral enzyme (reverse transcriptase) makes viral DNA from its own RNA
  - then takes over your cells to make more of the HIV virus
- HIV causes AIDS



# HIV

- fluids CONTAIN HIV

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

- tiny amounts in \_\_\_\_\_ and \_\_\_\_\_

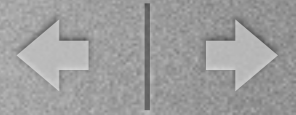
- fluids that DO NOT CONTAIN HIV

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



# HIV Transmission

- HIV is spread by sexual contact with infected person
- HIV is spread by sharing syringes and needles with people who may be infected
- transfusion of untested blood
- babies drinking infected mothers milk
- the only way to prevent HIV is to not come in direct contact with the fluids that contain HIV
- **HIV HAS NEVER BEEN TRANSMITTED THROUGH SALIVA, TEARS OR SWEAT**



# People with HIV?

- 38 million worldwide with HIV
- can you tell who has HIV?
- 70-80% of all new HIV cases in Turkey are from heterosexual contact
- in 2006, 28% of all new cases were in women

