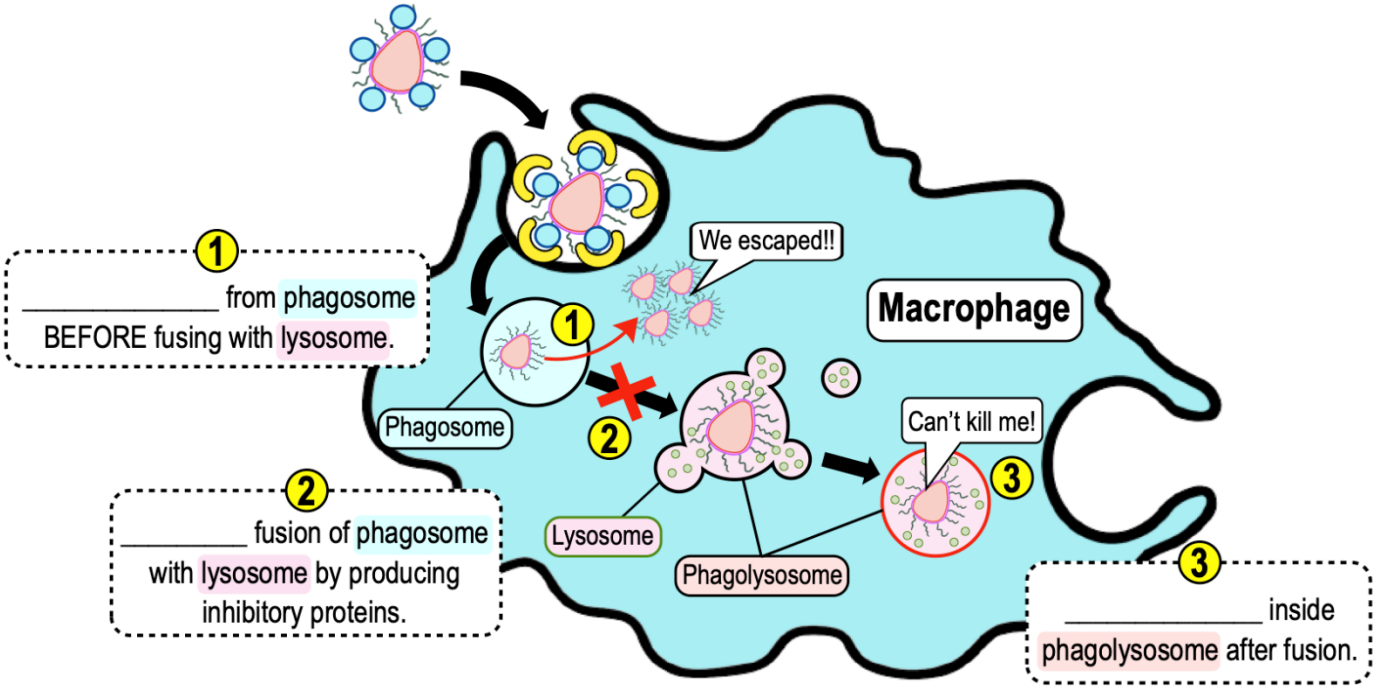
CONCEPT: 3) SURVIVING INSIDE PHAGOCYTIC CELLS

●*Recall:* When a pathogen is engulfed by a phagocyte, it enters as a *phagosome* & generally fuses with a *lysosome*.

●Some bacteria can survive *inside* a phagocytic cell in _____ different ways:



PRACTICE: Which of the following answers is not a mechanism pathogen use to survive within a phagocytic host cell?

a) Withstanding the digestive and hydrolytic enzymes of the phagolysosome.
b) Secreting digestive enzymes to lyse the phagocytic cells from the inside.
c) Forming pores in the phagosomal membrane and escaping the phagosome.
d) Creating proteins which blocks the fusion of the phagosome and lysosome.

PRACTICE: Some encapsulated bacterial pathogens are said to be serum-resistant. Serum resistant pathogens avoid the effects of the complement system proteins. How are encapsulated bacteria able to be serum-resistant and avoid phagocytosis?

a) The capsule ensures that C3b cannot bind the pathogen and trigger phagocytosis or opsonization.
b) The capsule ensures that C3 convertase cannot trigger the activation of phagocytic immune cells.
c) The capsule ensures that the pathogen will be able to escape the phagosome inside the phagocytic cell.