CONCEPT: OUTCOMES OF ANTIBODY BINDING TO ANTIGEN

●Once antibodies are secreted from plasma cells & bind their antigens, they can result in many possible outcomes:

□ **Serology:** the scientific study of blood serum, especially its antigen-_____ reactions.

1) *Recall*: **Opsonization:** process that makes microbes _____ to bind/engulf during *phagocytosis*.

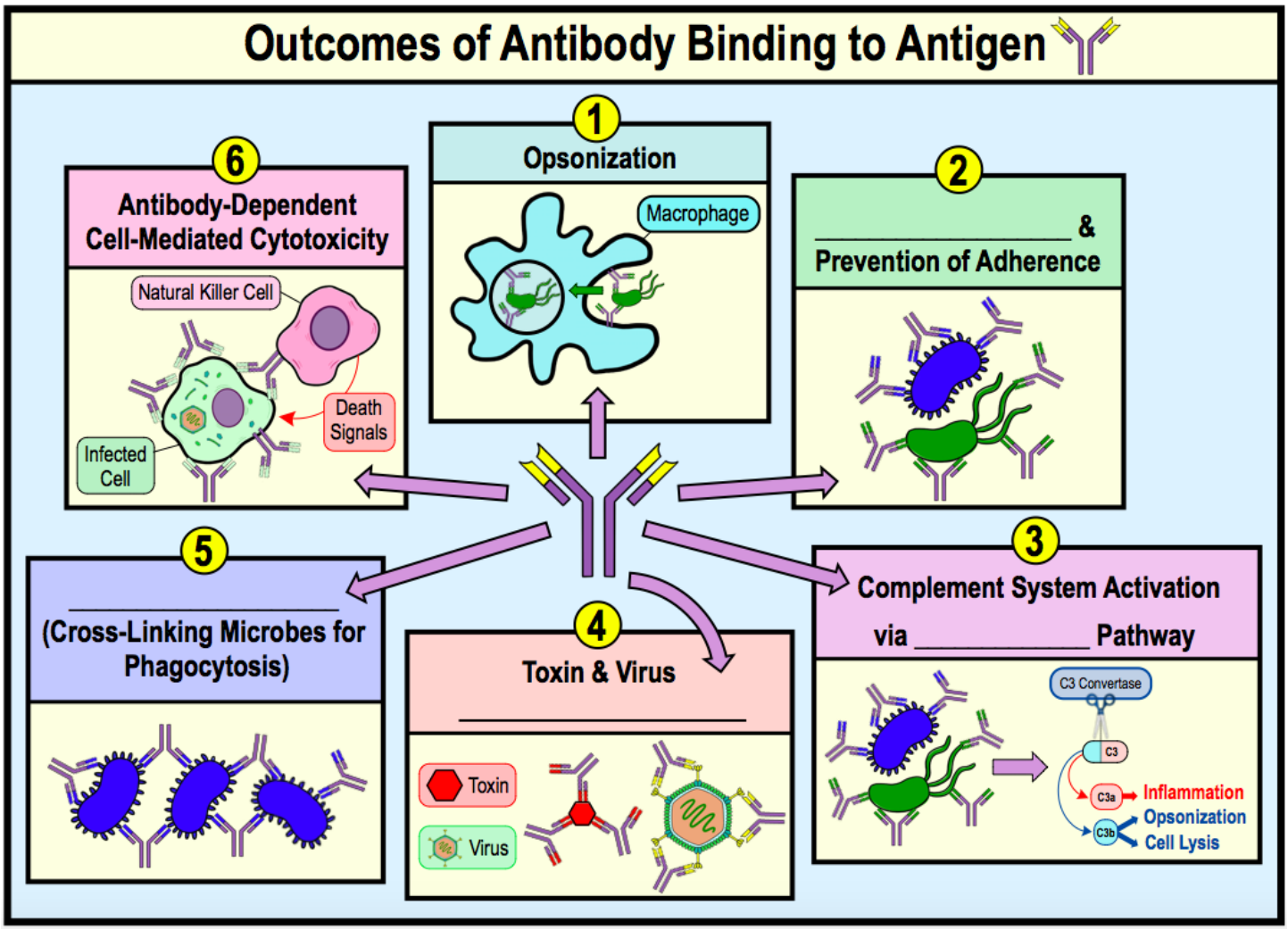
2) Prevent Adherence & Immobilize: antibodies can block or immobilize microbes to prevent infecting host cells.

3) *Recall*: **Complement System Activation:** activation of _____ *pathway* via antibody binding.

4) Toxin/Virus Neutralization: Antibodies bind *toxins* & _____ to make them ineffective & harmless.

5) Agglutination: antibodies can bind to multiple antigens, _____-linking them for phagocytosis in *large groups*.

6) Antibody-Dependent Cell-mediated Cytotoxicity (_____): NK cells target/kill antibody-bound *infected* cells.



PRACTICE: Which term describes antibodies binding to a virus preventing it from attaching to host cells?

a) Opsonization. b) Agglutination. c) Neutralization. d) Activation. e) Coagulation.

CONCEPT: OUTCOMES OF ANTIBODY BINDING TO ANTIGEN

PRACTICE: The study of antigen-antibody reactions is referred to as _____.

a) Immunology.
b) Toxicology.
c) Pandemicity.
d) Serology.
e) Epidemiology.

PRACTICE: Which of the following is NOT a protective outcome of antibody-antigen binding?

a) Antibody-antigen complex triggering the complement system when bound to an antigen.
b) Antibodies cross-linking pathogens so that they can be easily phagocytosed by macrophages.
c) Antibodies signaling to a cytotoxic T cell that a host cell is infected.
d) Antibodies binding to bacteria and prevent the bacteria from moving throughout the body.
e) Antibodies binding to blood vessel walls resulting in vasodilation.