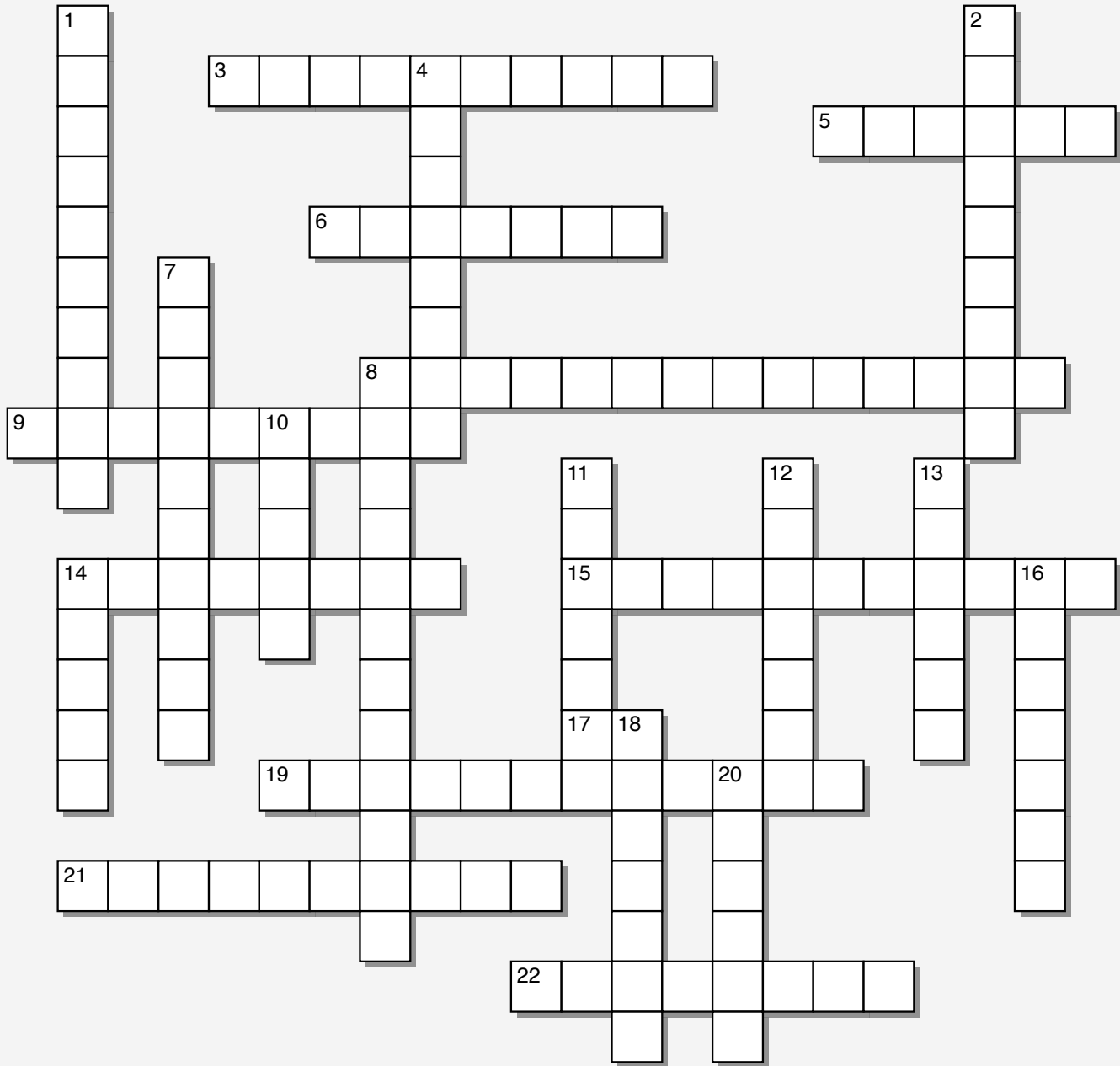


Innate and Adaptive Immunity



Across

3. Innate proteins that react in sequence to cause opsonization and to make holes in cell membranes.

5. An incomplete antigen; can bind with antibody, but cannot stimulate antibody production.

Down

1. Response characterized by a rapid increase in antibody titer following a second or subsequent exposure to the same antigen.

2. T-cells that form the "fighting arm" of cell-mediated immunity; these kill infected cells, tumor cells and eukaryotic pathogens.

Across

6. Class of antibody as determined by the amino acid sequences in the constant regions of light and heavy polypeptide chains.
8. Globular and quaternary proteins released into the circulation in large quantities by plasma cells.
9. Powerful vasodilatory substance released by mast cells; increases blood flow and capillary wall permeability.
14. Branch of adaptive immunity involving T-lymphocytes and the release of cytokines.
15. Innate proteins named for their ability to interfere with cytolytic virus life cycles.
17. About 5.5 on dry skin surfaces, 1-2 in the stomach.
19. Released by helper-T lymphocytes, these stimulate the proliferation of other immune cells.
21. The surface of dry skin is, because the water in perspiration evaporates leaving salt behind.
22. Immunity acquired after exposure to an antigen; it is specific.

Down

4. Found in tears, saliva and mucus; breaks down peptidoglycan.
7. Stratified squamous on dry skin surfaces; upper most cells are dead, highly keratinized and shed regularly.
8. Increase in redness, swelling and temperature in an area of traumatized tissue.
10. Sticky substance produced by mucous membranes; catches bacteria in nasal passages and pharynx.
11. Antigenic determinant group; a chemically defined site on the surface of an antigen.
12. Endogenous substance that raises temperature locally and induces fever; tumor necrosis factor is a prime example.
13. Tough, leather-like layer beneath the epidermis; made of dense connective tissue.
14. Cover epithelial surfaces of airways; sweep potential pathogens up and out of the respiratory system.
16. Lymphocytes that kill other cells by releasing granzymes and perforin; these are natural killers.
18. Branch of adaptive immunity involving B-lymphocytes and the release of antibodies.
20. Immunity that is built in (what you are born with); it is non-specific.