

- 1) Which one is true of Acyclovir?
 - a) It blocks the M2 channel.
 - b) It prevents fusion with the cell membrane.
 - c) It binds to neuraminidase.
 - d) It mimics a guanine rung.

- 2) What does the word "attenuated" mean? a) killed b) weakened c) mutated d) recycled

- 3) Which researcher used chemicals to damage the polio virus? a) Salk b) Sabin

- 4) How can viruses become resistant to anti-viral medicines?
 - a) Through mutations to the genome which cause tiny changes in the shapes of their proteins.
 - b) By acquiring more protein tools inside their capsids.
 - c) By changing their genomes from RNA to DNA, or vice versa.
 - d) Their protease "scissors" develop the ability to shred the medicine molecules.

- 5) What is the main purpose of an adjuvant?
 - a) To be a preservative that will increase the shelf life of the vaccine.
 - b) To get other types of immune cells to help with the antibody response by T and B cells.
 - c) To add an additional chemical that will help to poison the virus.
 - d) To prevent other immune cells from hindering the antibody response by T and B cells.

TRUE or FALSE?

- 6) ____ There are still some viruses for which we have neither vaccine nor anti-viral medicine.
- 7) ____ The goal of an anti-viral medicine is to block or break a viral part without harming the body cell.
- 8) ____ Only guanine rungs can be mimicked by anti-viral analogue medicines.
- 9) ____ Only immune system cells have MHC-2 receptors.
- 10) ____ These is only one type of influenza vaccine.
- 11) ____ Only B cells can become memory cells.
- 12) ____ Immune cells must have whole virus capsids in order to make antibodies.
- 13) ____ Sabin's attenuated polio vaccine could still infect intestinal cells.
- 14) ____ Sabin knew exactly how his vaccine worked.
- 15) ____ Polio's genome has been completely mapped out, down to every last rung of its RNA.

INTRO TO VIROLOGY

QUIZ for lesson 10

ANSWER KEY

- 1) d
- 2) b (Though attenuated virus have mutations, the word itself means "weakened.")
- 3) a
- 4) a
- 5) b
- 6) T
- 7) T
- 8) F
- 9) T (They use them to show protein samples to T cells.)
- 10) F
- 11) F (T cells can also become memory cells.)
- 12) F
- 13) T
- 14) F (He lived before the era of genome mapping and didn't know anything about the polio IRES.)
- 15) T (Yes, they keep track of the genomes of all the polio strains and look for any new mutations.)