

- 1) Which of these cells has a perforin gun? a) NK b) B cell c) macrophage d) dendritic cell
- 2) What are granzymes?
 - a) Enzymes that digest all the proteins in the host cell.
 - b) Chemical toxins that tell the cell to shred its DNA.
 - c) Granular proteins that self-assemble to make a hole.
- 3) Which of these cells will eat anything that is covered in Y-shaped antibodies?
 - a) T cell b) B cell c) macrophage d) NK cell
- 4) Which of these is NOT a sensor molecule? a) RIG-1 b) TLR-3 c) MDA-5 d) MHC-1
- 5) Which organelle digests things? a) Golgi body b) lysosome c) mitochondria d) ER
- 6) Which cell can feel the absence of MHC-1 flags?
 - a) NK b) B cell c) killer T cell d) macrophage
- 7) Why do the phagocytes (roaming eaters) have MHC-2 clips on their surface?
 - a) For sensing viral dsRNA.
 - b) Only for identification as "self."
 - c) For communication with other phagocytes.
 - d) For showing bits of protein to T helper cells.
- 8) How does RIG-1 work?
 - a) Its shape straightens out when it is trigger.
 - b) It bends in half when triggered.
 - c) It goes into the nucleus when triggered.
 - d) It kills viruses when triggered.

TRUE or FALSE?

- 9) ____ Interferon causes many anti-viral proteins to be made, and we know exactly what each one does.
- 10) ____ Killer T cells must get permission from T helper cells before killing a body cell.
- 11) ____ Skin is a good barrier against viruses because the outer layer is made of dead cells.
- 12) ____ All the viral sensors are designed to stimulate production of interferon (IFN).
- 13) ____ This lesson showed all the cell types in the immune system.
- 14) ____ The Y-shaped antibodies that B cells make will stick to any virus.
- 15) ____ Some of your cells were built with atoms and molecules that used to be part of viruses.

INTRO TO VIROLOGY

QUIZ for lesson 9

ANSWER KEY

1) a

2) b

3) c

4) d

5) b

6) a

7) d

8) a

9) F (We don't know what most of these proteins do. There's a great PhD research project for you!)

10) T

11) T

12) T

13) F (We did not look at basophils, eosinophils, neutrophils, monocytes, just to name a few.)

14) F

15) T