Virology – Biology 3310/4310 Spring 2017 Prof. V. Racaniello Study Questions for Lecture 20 – Antiviral drugs

1. Be familiar with the mechanisms of inhibition of the following antivirals discussed in lecture, including the step in the replication cycle that is blocked, how the drug inhibits that step, and how resistance emerges.

Acyclovir:

Amantadine:

Tamiflu and Relenza:

Nucleoside inhibitors:

Non-nucleoside inhibitors:

Protease inhibitors:

Integrase inhibitors:

2. Why does the drug acyclovir have fewer side effects than AZT?

3. How does antiviral drug resistance emerge? Is drug resistance more frequent among RNA or DNA viruses? Why?

4. Why don't we have more antiviral drugs for acute virus infections?

5. Why don't we have any licensed broad-spectrum antivirals?