

Virology Live Fall 2021
Vincent Racaniello
Study Questions for session 20 – Antivirals

These questions are intended to summarize key points from this session and prepare you for the exams.

1. How are antiviral drugs developed today?
2. 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.

Amantadine:

Maraviroc:

Acyclovir:

Nucleos/tide inhibitors:

Non-nucleoside inhibitors:

Integrase inhibitors:

Protease inhibitors:

Tamiflu and Relenza:

3. Why does the drug acyclovir have fewer side effects than AZT?
4. How does antiviral drug resistance emerge? Is drug resistance more frequent among RNA or DNA viruses? Why?
5. Why don't we have more antiviral drugs for acute virus infections?
6. Why don't we have any licensed broad-spectrum antivirals?
7. Summarize the situation with SARS-CoV-2 antivirals.