

Virology – Biology W3310/W4310 Spring 2016

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Study questions for Lecture 6 – RNA-directed RNA synthesis

1. Why must (-) strand viral RNA be coated with protein in the virion? Why not (+) strand viral genomes? Are there exceptions?

2. All RNA viruses encode their own replication system. True or False? Why?

3. Know the flow of information for (+), (-), and ds RNA genomes. Which genomes are accompanied by an RdRp? How are proteins encoded in viral RNA genomes?

4. For viruses with (-) sense RNA genomes, the (+) strands and mRNA are the same. True or False? Why or why not?

5. What is the primer for picornavirus replication? The primer for synthesis of influenza mRNAs?

6. When the genome of a (-)ssRNA virus is purified and introduced into cells that are permissive for the original virus, does replication occur? Why? If you did this same experiment with a (+) sense ssRNA virus, would viral replication ensue?

7. How is poly(A) added to mRNAs of RNA viruses

8. What is *cap snatching* and why is it necessary for influenza replication?