

Virology Live Fall 2021

Vincent Racaniello

Study questions for session 5 – Attachment and Entry

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

1. Why must viruses attach to receptors to enter cells? Do cell receptors exist solely for virus entry?

2. Describe how enveloped and non-enveloped virus particles attach to cell receptors.

3. What are the different ways that nucleic acids exit a naked icosahedral capsid? An enveloped virus particle?

4. Why must fusion of viral and cellular membranes be regulated? Name three ways by which it is regulated.

5. How does the viral or subviral particle move within the cell? Does diffusion play a role?

6. Are viral nucleic acids always released from the capsid/nucleocapsid during entry? If not, provide an example.

7. Many DNA viral genomes must enter the nucleus. How is this movement accomplished? Do any RNA virus genomes enter the nucleus? If so, how do they cross?