

Reading Questions for “The Cellular Chamber of Doom”

1. How do proteasomes work to degrade proteins and recycle their amino acids?
2. How does protein degradation play a role in genetic anemia? In cystic fibrosis?
3. Describe the structure of a proteasome and how proteasomes recycle amino acids.
4. What is the cellular ‘kiss of death?’ Describe the action of the E proteins and how they interact to tag proteins for recycling.
5. Why does cell division depend on protein death? Relate proteasomes to CDKs and cyclins.
6. Describe and explain the diagram on the last page of the article that traces viral protein being digested, transported through the cell, and presented on the cell’s surface.
7. How does HPV block the cellular protections against tumors?
8. How does HIV act on CD4 proteins to further the virus’ own replication?