

1. Retrieval of escaped ER proteins from the VTC/ Golgi back to the ER occurs using vesicles with which coat?
  - a. Clathrin
  - b. COPI
  - c. COPII
  - d. Retromer
2. How are proteins containing the KDEL sequence on their c-terminus retrieved from the VTC/ Golgi and dropped off in the ER.
3. How is mannose 6-phosphate linked to a particular protein (what type of glycan, what enzymes are required, what type of signal)? What does this do?
4. What coat proteins are used for budding vesicles containing lysosomal hydrolases from the Golgi? Where are these vesicles trafficked to?
5. What are the three main forward vesicular trafficking pathways from the TGN?
6. What would happen to the acid hydrolases in I-cell patients?
7. How is polarity attained with the constitutive secretory pathway?
8. How do vesicle contents in the regulated secretory pathway get concentrated?
9. What two mechanisms exist to keep ER resident proteins in the ER?

10. Which degradation pathway is more likely to degrade a folded integral membrane protein?
11. Name three methods a cell can use to uptake molecules from the extracellular space.
12. What are the two fates of a molecule internalized by endocytosis?
13. (T/F) Earlier enzymatic steps carried out in the Golgi are more likely to occur in the trans Golgi.
14. After vesicles leave the ER they uncoat and undergo homotypic fusion to form the \_\_\_\_\_.