

Week 2 Questions – Tissues

1. You find an unlabeled histology slide and look at it under your light microscope. You see a single layer of cells (each of which has hundreds of tiny, apparently immobile projections on their apical surface) facing an empty cavity.
 - a. What type of tissue are you probably looking at & how do you know?
 - b. What are those tiny immobile projections?
 - c. Why would a cell have them (I.e. what is their function)?
 - d. Consequently, what is probably the specialized job of this tissue?
2. Below that single layer of cells you see a densely packed (so close that it appears solid) layer of pink protein fibers separated intermittently by a few withered cells trapped in apparently empty chambers.
 - a. What type of tissue are you probably looking at & how do you know?
 - b. What subtype are you looking at?
 - c. What type of protein fibers make up this tissue?
3. You come upon a petri dish full of living tissue in lab and view it under the light microscope. You see cells with tiny projections again, but this time they are moving rhythmically. You also see a thin layer of clear fluid on top of the cells.
 - a. What type of tissue are you probably looking at?
 - b. What are those projections on top of the cells?
 - c. What is their function?
 - d. Name one place in the body you might expect to see cells with these projections.
4. Differentiate between the three **modes** of secretion and give an example of each one.
5. Consider connective tissues:
 - a. List the four major functions of connective tissue
 - b. Give an example of a **specific** subtype of connective tissue that performs each function.
 - c. **Explain how** the structure of each subtype you named above allows it to perform each function.