

Study guide 12

Lecture 18-19

1. Know the characterization of four types of cell junctions. Where these junctions locate in a tissue section (epithelial tissue/connective tissue).
2. Understand that cell junctions are very important to control cell proliferation, differentiation, migration and survival.
3. Be able to tell the major players in each type of junctions.
4. Understand that ECM components are mainly secreted by fibroblasts.
5. Know cadherin structural organization, property and its functional characteristics.
6. Know that cadherin is homophilic.
7. Know selectins are important in mediating blood cell adhesion and its binding property.
8. Be able to tell the general structure of desmosome/hemidesmosome, both are mediated by intermediate filaments.
9. Know integrins and its structure, function, activation mechanism (integrin can be activated by outside-in and inside-out mechanism), know how cell/matrix junction is organized.
10. Know gap junctions, its structure and characteristics.
11. What is basal lamina and its composition, property (selectively permeable)
12. Understand the difference between proteoglycans and glycoproteins.
13. What is the characteristics of proteoglycans and functions in ECM
14. Know the major components in ECM, including collagen, fibronectin, elastin, etc. Their general structure and biogenesis.
15. Know that the major enzymes (MMPs, PLAUs, serine proteases, etc) to digest ECM proteins.