Practice no. 9 – Covering epithelia (deadline April 17, 2020)

- 1. Draw an idealized scheme of epithelial cell and indicate the surface domains (apical, basal/basolateral), including the modifications. Use your resources from cytology.
- 2. Make a table summarizing properties of epithelial and connective tissue. Compare number of cells vs. amount of ECM, morphology of epithelial cells and fibroblasts, vascularization and typical anatomical locations. Other possible parameters can be shared and discussed on HistoClub.
- 3. Graphically schematize covering, trabecular and reticular epithelia. Provide examples of anatomical locations.
- 4. Graphically schematize individual types covering epithelia. Provide examples of anatomical locations.
- 5. What does the term "pseudostratified" mean? What is the difference between "pseudostratified" and "stratified" epithelia?
- 6. Compare the superficial layer of transitional and stratified squamous epithelium. Characterize the difference and include the description into the scheme in task. no. 4.
- 7. What does the term "mucociliary escalator" mean, where does it occur and what cell structures are crucial in this process?
- 8. What does the term "metaplasia" mean? Provide examples of typical locations.
- 9. Define the term "basement membrane" and "basal lamina" and schematize their structure. In what tissues the basal laminae can fuse, and is the functional relevance of the fusion? What structure enables attachment of epithelial cells to basal lamina? What is "anoikis"?.
- 10. When do the cells with epithelial characteristics first appear in embryonic development?

Recommended study resources:





