

Practice 6

Basic staining methods

1. Using the online Atlas of Histology provide specific examples of staining method and staining results that can be described as: “chromophilic”, “chromophobic”, “basophilic”, “acidophilic”, “eosinophilic”, “orthochromatic”, “metachromatic”, “neutrophilic”, “trichrome”. Draw a memo that will help you to distinguish basophilic and eosinophilic structures.
2. What is the difference between the routine and special staining methods?
3. Using the online Atlas of Histology find examples tissues stained by the following types of routine staining and describe the structures stained by:
 - a) hematoxylin and eosin
 - b) hematoxylin, eosin, saphron
 - c) impregnation
 - d) AZAN
4. Using any information resource identify the meaning of the abbreviation „PAS“, used in histology techniques, and give an example of use.
5. What do the aldehyde-fuchsin, orcein, Congo Red and Oil Red visualize?
6. You are asked to do the immunohistochemical staining for Ki-67 antigen in a sample of tumor from a patient. What is the principle of the method, and why do the clinicians want to know that?
7. What are the principal parts of a light microscope?
8. How do you calculate the total magnification of the object you observe using a light microscope?
9. Why and when the immersion oil is used?

Recommended study materials: Presentations from practices, Atlas of Histology (online).