Semester 3, 2023/2024
[period Autumn 2023]

Programme of lectures and practices in Histology and Embryology for the 2nd year of study programme General Medicine (aVL)

Education week 2023/24	LECTURES	PRACTICES
18. 9. – 22. 9. 2023	Microscopic structure of the lymphatic organs. Monocyte-macrophage system.	Microscopic structure of cardiovascular system. Slides: muscular artery with vein, aorta, *vena cava*, myocardium.
25. 9. – 29. 9. Thu 28. 9. holiday	Microscopic structure of respiratory system: Nasal cavity, structure of the larynx and trachea. Structure of the lungs, blood – air barrier. Development of the respiratory system.	Microscopic structure of the lymphatic organs. Slides: *thymus, lymphonodus, lien, tonsillae (palatina et lingualis*).
2. 10. – 6. 10.	GIT I: Microscopic structure of the oral cavity – lips, cheeks, salivary glands, tongue. Microscopic structure of the tooth. General structure of the wall of digestive tube.	Microscopic structure of the respiratory system. Slides: *concha nasi, epiglottis, larynx, trachea,* pulmo.
9. 10. – 13. 10.	GITII: Microscopic structure of the oesophagus, stomach and intestines.	Microscopic structure of the digestive system I. Slides: *labium oris, apex linguae, papilla vallata, palatum molle*, tooth, *oesophagus.*
16. 10. – 20. 10.	GIT III: Microscopic structure of the liver, gallbladder, bile ducts, and pancreas. Overview of development of the gut.	Microscopic structure of the digestive system II. Slides*: cardia, fundus ventriculi, pylorus, duodenum, intestinum tenue, intestinum crassum, appendix*.
23. 10. – 27. 10.	Microscopic structure and development of the urinary system. Nephron - its structure, histotopography, and function. Blood circulation of kidneys. Urinary passages. Stages in development of kidneys.	Microscopic structure of the digestive system III. Slides: *hepar, vesica fellea, pancreas, gl. parotis, gl. submandibularis, gl. sublingualis*.
30. 10. – 3. 11.	Microscopic structure of the male reproductive system: Testis, excretory genital ducts, accessory genital glands, penis. Spermato- and spermiogenesis. Composition of the sperm.	Microscopic structure of the urinary system. Slides: *ren, calyx renalis, ureter, vesica urinaria, urethra feminina, pars cavernosa urethrae masculinae*.
6. 11. – 10. 11.	Microscopic structure of the female reproductive system: ovary, oviduct, uterus, vagina, external genitalia. Ovarian cycle, ovulation, atresia. Oogenesis. Menstrual cycle. The menstrual and ovarian cycle – relations.	Microscopic structure of the male reproductive system. Slides: *testis, epididymis, funiculus spermaticus, glandula vesiculosa,* prostate, penis.
13. 11. – 17. 11. Fri 17. 11. holiday	Development of internal and external sexual organs. General characteristics of the indifferent stage.	Microscopic structure of the female reproductive system I. Slides: *ovarium, corpus luteum, tuba uterina - ampulla, tuba uterina - isthmus, uterus* - prolipherative and secretory phases.

20. 11. – 24. 11.	Microscopic structure, histophysiology and development of endocrine glands: Hypophysis, epiphysis, thyroid gland, parathyroid glands, adrenal gland, and islets of Langerhans. Principles of humoral regulation.	Microscopic structure of the female reproductive system II. Slides: *vagina, labium minus,* placenta*, funiculus umbilicalis*.
27. 11. – 1. 12.	Microscopic structure and development of the central and peripheral nervous system. Structure of gray matters in the CNS: Iso- and allocortex, cerebellar cortex, spinal cord. Meninges. Ganglia and peripheral nerves. Overwiev of development of the brain and spinal cord. Histogenesis of the neural tube.	Microscopic structure of endocrine glands. Slides: *hypophysis cerebri, epiphysis, glandula thyreoidea, glandula parathyreoidea, glandula suprarenalis,* islets of Langerhans.
4. 12. – 8. 12.	Microscopic structure of the organ of vision: The eye and its refractive (dioptric) media. Accessory structures of the eye. Overview of development of the eye. Microscopic structure of the ear. Major structural differences between the statokinetic and acoustic compartments. Overview of development of the vestibulocochlear organ.	Microscopic structure of the central and peripheral nervous system. Slides: *cortex cerebri, cerebellum, medulla spinalis, ganglion spinale* (the dorsal root ganglion), *ganglion vegetativum* (the autonomic ganglion), peripheral nerve.
11. 12. – 15. 12.	Microscopic structure and development of the skin and skin derivatives. Mammary gland.	Microscopic structure of the sensory organs. The eye - slides: anterior eye segment, posterior eye segment, *fasciculus opticus, palpebra, glandula lacrimalis*. The ear - slides: *cochlea, auricula***.**
18. 12. – 22. 12.	Development of body cavities and mesenteries. Development of the diaphragm. Development of the spleen.	Microscopic structure of the skin and skin derivatives. Slides: skin from the tip of the finger, skin from the axilla, skin with hairs, nail*, mamma non lactans, mamma lactans*. Credits. Consultations.

Doc. MVDr. **Aleš Hampl**, CSc.
Head of Department of Histology and Embryology