

Academic year 2016/ 2017
Faculty of Medicine EM I. Groups 1-8

| Week | Lectures <i>Mondays 14.00-15.40</i> <i>Fridays 12.00-12.45</i> | Practical sessions | |
|---|---|---|--|
| | | Dissection room | Histology lab |
| Week 1 Sept. 5-9. | 1. The role of anatomy, histology and embryology in the medical curriculum. Terminology 2. The cell , cellular membrane, endoplasmic reticulum 3. The cellular framework, microtubules, IM filaments, actin microfilaments | General introduction to practical work in the dissection room, tools and rules Upper limb Bones | Light and electron microscopical techniques, the principles of practical histology classes |
| Week 2. Sept. 12-16. | 4. Adhesion molecules, intercellular connections, epithelial cells 5. Types of epithelia. Glandular epithelium 6. Cell nucleus, mitochondrion, peroxysome | Upper limb Bones and joints | Simple epithelia |
| Week 3. Sept. 19-23. | 7. Exocytosis, Golgi apparatus, , vesicular transport, sorting 8. Endocytosis, cellular organelles. Apoptosis 9. General arthrology and myology. Joints , muscles and movements of the shoulder and the upper girdle | Upper limb Dissection of the muscles, vessels and nerves of the flexor side | Stratified epithelia |
| Week 4. Sept. 26-30. | 10. Muscles and actions of the elbow joint 11. Joints, muscles and actions of the wrist and the hand 12. Connective tissue cells | Upper limb Dissection of the muscles, vessels and nerves of the flexor and extensor sides | Glandular epithelium |
| Week 5. Oct. 3-7. | 13. Connective tissue fibres, types and formation. Extracellular matrix 14. The principles of cell division, differentiation. Cell cycle, mitosis, meiosis 15. Supporting tissues (cartilage, bone) | Upper limb Dissection of the muscles, vessels and nerves of the extensor side, dissection of joints | Connective tissue I. Cellular elements |
| Week 6. Oct. 10-14. Oct.15. Saturday is a „Monday,, | 16. Ossification, bone remodelling 17. Muscles, joints and ligaments of the vertebral column. Intervertebral, atlantooccipital and atlantoaxial joints 18. Bones, joints, construction of the pelvis. Muscles and actions of the hip joint ----- 19. Subinguinal hiatus. Adductor and femoral canals 20. Muscles and actions of the knee joint | 1. Upper limb Dissection of the muscles, vessels and nerves of the extensor side, dissection of joints 2. Midterm test 1 Upper limb ----- <i>Saturday</i> Dissection classes for Groups 1-12, 15-16 | Connective tissue II. Fibrous elements. ----- <i>Saturday</i> Histology class at 8.00 Supporting tissues for Groups 1-3-5,6 |
| Week 7. Oct. 17-21. | 21. Gametes, fertilization, cleavage and blastulation 22. Muscles and joints of the foot. Architecture of the foot 23. – National Holiday | Muscles of the trunk, lower limb Dissection of joints of the lower limb No Friday classes for Groups 1,2,4,5 | Mon: Types of ossification for Groups 1-3-5,6 Tue: Supporting tissues for Groups 11, 12, 13,14 ----- No Friday class for Groups 2,4,7-10, 15, 16 |
| Week 8. Oct. 24-28. | 24. Implantation, bilaminar embryo. Fetal membranes, umbilical cord. Structure of the placenta, placental circulation 25. Molecular basis for gastrulation. Formation, differentiation and derivatives of the germinal layers. 26. Neurulation, folding of the embryo. Body axes, left-right lateralizationm asymmetry. Craniocaudal, dorsoventral differentiation. Malformations | Lower limb Dissection of the muscles, vessels and nerves of the dorsal side | Revision Groups 1,3,5,6, 11,12, 13,14 Supporting tissues Groups 2,4,7-10, 15, 16 |
| Week 9. Oct. 31-Nov. 4. <i>Oct.31 and Nov.1 are national holidays</i> | – National Holiday – National Holiday 27. Blood. Corpuscular elements | No Monday/Tuesday dissection class Lower limb Dissection of the muscles, vessels and nerves of the dorsal side | No class on Mon/Tue for Groups 1,3,5,6, 11,12, 13,14 Types of ossification AND Revision |
| Week 10. Nov. 7-11. | 28. Formation of the primary tissues. Homeobox genes, stem cells 29. Development of the limbs and the vertebral column together with the trunk 30. Muscle tissue | Lower limb Dissection of the muscles, vessels and nerves of the ventral side | Midterm test 2: Epithelia, connective and supporting tissue. General embryology |
| Week 11. Nov. 14-18. | 31. Bony framework of the skull. Sphenoid and ethmoid 32. Facial skeleton. Orbit, nasal cavity 33. Temporal bone. Internal and external skull base | 1. Group test : joints, muscles, nerves and vessels of the lower limb 2. Bones of the skull | Smooth, skeletal and cardiac muscle types |
| Week 12. Nov. 21-25. | 34. Skull. Infratemporal and pterygopalatine fossae 35. Red bone marrow, erythropoiesis, Formation of leukocytes 36. Nervous tissue. Glial cells | Internal and external skull base | Blood, red bone marrow |
| Week 13. Nov. 28-Dec.2. | 37. Temporomandibular joint, muscles of mastication; muscles of facial expression 38. Muscles, fasciae and triangles of the neck 39. Clinical anatomy of the musculoskeletal system | Bones of the facial skeleton, mandible. Orbit, nasal cavity, pterygopalatine fossa Temporomandibular joint | Nervous tissue |
| Week 14. Dec. 5-9. | 40. Clinical demonstration 41. Development of the skull, fontanelles. 42. Developmental malformations | Muscles of mastication and facial expression | Placenta, umbilical cord Revision |

Academic year 2016/ 2017
Faculty of Medicine EM I. Groups 9-16

| Week | Lectures <i>Mondays 12.00-13.40</i> <i>Wednesdays 12.00-12.45</i> | Practical sessions | |
|--|---|---|--|
| | | Dissection room | Histology lab |
| Week 1 Sept. 5-9. | 1. The role of anatomy, histology and embryology in the medical curriculum. Terminology 2. The cell , cellular membrane, endoplasmic reticulum 3. The cellular framework, microtubules, IM filaments, actin microfilaments | General introduction to practical work in the dissection room, tools and rules Upper limb Bones | Light and electron microscopical techniques, the principles of practical histology classes |
| Week 2. Sept. 12-16. | 4. Adhesion molecules, intercellular connections, epithelial cells 5. Types of epithelia. Glandular epithelium 6. Cell nucleus, mitochondrium, peroxyosome | Upper limb Bones and joints | Simple epithelia |
| Week 3. Sept. 19-23. | 7. Exocytosis, Golgi apparatus, , vesicular transport, sorting 8. Endocytosis, cellular organelles. Apoptosis 9. General arthrology and myology. Joints , muscles and movements of the shoulder and the upper girdle | Upper limb Dissection of the muscles, vessels and nerves of the flexor side | Stratified epithelia |
| Week 4. Sept. 26-30. | 10. Muscles and actions of the elbow joint 11. Joints, muscles and actions of the wrist and the hand 12. Connective tissue cells | Upper limb Dissection of the muscles, vessels and nerves of the flexor and extensor sides | Glandular epithelium |
| Week 5. Oct. 3-7. | 13. Connective tissue fibres, types and formation. Extracellular matrix 14. The principles of cell division, differentiation. Cell cycle, mitosis, meiosis 15. Supporting tissues (cartilage, bone) | Upper limb Dissection of the muscles, vessels and nerves of the extensor side, dissection of joints | Connective tissue I. Cellular elements |
| Week 6. Oct. 10-14. Oct. 15. Saturday is a „Monday“ | 16. Ossification, bone remodelling 17. Muscles, joints and ligaments of the vertebral column. Intervertebral, atlantooccipital and atlantoaxial joints 18. Bones, joints, construction of the pelvis. Muscles and actions of the hip joint ----- 19. Subinguinal hiatus. Adductor and femoral canals 20. Muscles and actions of the knee joint | 1. Upper limb Dissection of the muscles, vessels and nerves of the extensor side, dissection of joints 2. Midterm test 1 Upper limb ----- Saturday Dissection classes for Groups 1-12, 15-16 | Connective tissue II. Fibrous elements. ----- Saturday Histology class at 8.00 Supporting tissues for Groups 1-3-5,6 |
| Week 7. Oct. 17-21. | 21. Gametes, fertilization, cleavage and blastulation 22. Muscles and joints of the foot. Architecture of the foot 23. Implantation, bilaminar embryo. Fetal membranes, umbilical cord. Structure of the placenta, placental circulation | Muscles of the trunk, lower limb Dissection of joints of the lower limb No Friday classes for Groups 1,2,4,5 | Mon: Types of ossification for Groups 1-3-5,6 Tue: Supporting tissues for Groups 11, 12, 13,14 ----- No Friday class for Groups 2,4,7-10, 15, 16 |
| Week 8. Oct. 24-28. | 24. Molecular basis for gastrulation. Formation, differentiation and derivatives of the germinal layers. 25. Neurulation, folding of the embryo. Body axes, left-right lateralizationm asymmetry. Craniocaudal, dorsoventral differentiation. Malformations 26. Blood. Corpuscular elements | Lower limb Dissection of the muscles, vessels and nerves of the dorsal side | Revision Groups 1,3,5,6, 11,12, 13,14 Supporting tissues Groups 2,4,7-10, 15, 16 |
| Week 9. Oct. 31-Nov. 4. <i>Oct.31 and Nov.1 are national holidays</i> | – National Holiday – National Holiday 27. Formation of the primary tissues. Homeobox genes, stem cells | No Monday/Tuesday dissection class Lower limb Dissection of the muscles, vessels and nerves of the dorsal side | No class on Mon/Tue for Groups 1,3,5,6, 11,12, 13,14 ----- Types of ossification AND Revision |
| Week 10. Nov. 7-11. | 28. Development of the limbs 29. Development of the vertebral column and the trunk 30. Muscle tissue | Lower limb Dissection of the muscles, vessels and nerves of the ventral side | Midterm test 2: Epithelia, connective and supporting tissue. General embryology |
| Week 11. Nov. 14-18. | 31. Bony framework of the skull. Sphenoid and ethmoid 32. Facial skeleton. Orbit, nasal cavity 33. Temporal bone. Internal and external skull base | 1. <u>Group test</u> : joints, muscles, nerves and vessels of the lower limb 2. Bones of the skull | Smooth, skeletal and cardiac muscle types |
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| Week 14. Dec. 5-9. | 40. Clinical demonstration 41. Development of the skull, fontanelles. 42. Developmental malformations | Muscles of mastication and facial expression | Placenta, umbilical cord Revision |