I. General Pathology

1. Biopsy: techniques of obtaining tissue samples, various kindsŤ

of bioptical specimens, tissue processing, frozen sections

2. Cytology: techniques of obtaining tissue samples, variousŤ

kinds of cytological specimens

3. Autopsy, its importance, the autopsy protocol and its parts

4. Histological methods, stainings, light and electronŤ

microscopy, histochemistry, immunohistochemistry and otherŤ

special techniques

5. Disease and its causes

6. Death and postmortal changes

7. Necrosis - types, causes and further evolution

8. Atrophy - types, causes and further evolution

9. Intracellular accumulations of lipids, proteins andŤ

carbohydrates, single-gene inborn disorders

10. Amyloidosis

11. Pigments and pigmentations

12. Icterus

13. Pathologic calcifications, stones

14. Pathology of nutrition

15. Hypertrophy, hyperplasia

16. Regeneration, reparation

17. Metaplasia, dysplasia

18. Edema

19. Hyperemia, venostasis

20. Focal disorders of blood supply, ischemia, infarction

21. Haemorrhage

22. Thrombosis incl. DIC

23. Embolisation, metastasis

24. Shock

25. Heart failure - types, causes, complications

26. Causes of inflammation

27. Pathophysiology of inflammation

28. Inflammation - microscopic and macroscopic changes

29. Classification and morphologic patterns of inflammation

30. Specific granulomatous inflammation and its examples (leprosy,Ť

sarcoidosis, rhinoscleroma, etc.)

31. Tuberculosis: general morphology

32. Tuberculosis: preimmune type

33. Tuberculosis: organ tuberculosis of adult type

34. Syphilis

35. Immune system and its functions

36. Immune reactions

37. Transplantation

38. Primary and secondary immunodeficiency

39. Autoimmune diseases

40. HIV, AIDS

41. Mechanisms of bacteria and virus-induced injury

42. Bacteriemia, sepsis, pyemia

43. Skin infections

44. Respiratory system infections

45. Gastrointestinal system infections

46. Genitourinary system infections

47. Nervous system infections

48. Staphylococcal infections

49. Streptococcal infections

50. Infectious hepatitis

51. Environmental pollution

52. Injury by physical agents

53. Injury by chemical agents

II. Oncology

1. Definitions, preneoplastic lesions, pseudotumors

2. Classification of tumors

3. Structure, growth of tumorsŤ

4. Invasion and metastases

5. Characteristics of benign and malignant tumors

6. Carcinoma in situ

7. Carcinogenesis, etiology of tumors

8. Effects of tumor on host

9. Grading and staging of tumors, tumor prognosis

10. Fibroma, myxoma, lipoma, angioma (+ sarcomas)

11. Chondroma, chordoma, osteoma (+sarcomas)

12. Leiomyoma, leiomyosarcoma, rhabdomyoma, rhabdomyosarcoma

13. Hemoblastoses, myeloproliferative syndrome

14. Hodgkinřs disease

15. Non-Hodgkin malignant lymphomas - Kiel classification

16. Tumors of the squamous stratified epithelium

17. Tumors of transitional epithelium

18. Benign tumors of the glandular epithelium

19. Malignant tumors of the glandular epithelium

20. APUDomas and carcinoid tumors

21. Neuroectodermal tumors of the CNS

22. Tumors of the meninges and peripheral nervous system

23. Tumors of melanocytes

24. Mixed tumors, germinal tumors

25. Choriocarcinoma, mesothelioma

26. Tumors of the heart

27. Tumors of the lymph nodes

28. Tumors of the upper respiratory tract

29. Bronchopulmonary tumors

30. Tumors of the oral cavity, incl. salivary glands andŤ

odontogenic tumors

31. Tumors of the esophagus and stomach

32. Neoplasms of the small and large intestine

33. Tumors of the liver, biliary tract and pancreas

34. Tumors of the kidney and urinary tract

35. Testicular tumors

36. Tumors of the prostate and penis

37. Vulvar and cervical tumors

38. Tumors of the endometrium and myometrium

39. Tumors of the ovary

40. Tumors of the breast

41. Intracranial tumors

42. Tumors of the endocrine system

43. Tumors of the musculoskeletal system

44. Skin tumors and pseudotumorous lesions

III. Special Pathology

1. Congenital heart disease

2. Pericardial disease

3. Endocarditis

4. Acquired heart disease (vitia cordis acquisita)

5. Myocarditis

6. Cardiomyopathy

7. Ischemic heart disease

8. The heart in hypertension

9. Atherosclerosis and other arterial dystrophies

10. Arteritis

11. Aneurysms

12. Pathology of the veins and lymphatic vessels

13. Posthemorrhagic and hemolytic anemia

14. Anemias of diminished erythropoesis, polycytemia

15. Bleeding disorders

16. Pathology of the spleen

17. Nonneoplastic disorders of white cells

18. Pathology of the thymus

19. Nose and paranasal cavities

20. Larynx and trachea

21. Pediatric lung diseases

22. Bronchitis, asthma

23. Bronchiectasia, bronchostenosis

24. Emphysema, atelectasis

25. Pulmonary edema

26. Pulmonary thrombembolism

27. Pulmonary hypertension

28. Acute and chronic restrictive lung diseases

29. Classification of pulmonary infections, lobar pneumonia

30. Bronchopneumonia

31. Primary atypical pneumonias, fungal infections

32. Pulmonary tuberculosis

33. Pleura

34. Diseases of the oral cavity

35. Pathology of salivary glands

36. Pathology of the esophagus

37. Gastritis

38. Peptic ulcers

39. Developmental disorders, diverticulosis

40. Intestinal vascular disorders

41. Inflammatory diseases, obstructive disease, ileus

42. Enteritis, appendicitis, colitis

43. Malabsorption syndrome

44. Pathology of the peritoneum

45. Liver: metabolism of the bilirubin, jaundice, hepatic failure

46. Hereditary disorders of bilirubin metabolism, pediatric liverŤ

disease

47. Circulatory disorders of the liver

48. Viral hepatitis

49. Drug- and toxin-induced liver disease

50. Liver cirrhosis

51. Hemochromatosis, Wilsonřs disease, alpha-1-antitrypsinŤ

deficiency

52. Cholangitis and liver abscess

53. Cholecystitis, cholelithiasis

54. Mucoviscidosis

55. Acute hemorrhagic necrosis of the pancreas, pancreatitis

56. Kidney - malformation, renal cysts

57. Blood supply disorders of the kidney

58. Glomerular diseases, pathogenesis and classification

59. Causes of the nephritic syndrome

60. Causes of the nephrotic syndrome

61. Tubulointerstitial nephritis

62. Acute tubular and diffuse cortical necrosis

63. Hydronephrosis, renal stones

64. Pathology of the renal pelvis, urether and urinary bladder

65. Pathology of the penis and prostate

66. Pathology of the testis

67. Pathology of the vulva and vagina

68. Pathology of the cervix uteri, endometritis, endometriosis

69. Dysfunctional uterine bleeding and endometrial hyperplasia

70. Pathology of Fallopian tubes and ovaries

71. Pathology of the pregnancy

72. Inflammations and fibrocystic changes of the breast

73. Intracranial hypertension, cerebral edema, hydrocephalus

74. Intracranial nontraumatic hemorrhage

75. Intracranial injuries

76. Ischemic cerebral disease

77. Pachymeningitis, leptomeningitis

78. Purulent encephalitis

79. Viral and other encephalitis

80. Degenerative diseases - classification, Parkinsonřs andŤ

Huntingtonřs disease, amyotrophic lateral sclerosis

81. Alzheimerřs disease, multiple sclerosis, nutritional andŤ

metabolic encephalopathies

82. Pathology of the hypophysis

83. Pathology of the thyroid gland

84. Pathology of the parathyroid glands

85. Pathology of the endocrine pancreas, diabetes mellitus

86. Pathology of the adrenal glands

87. Skeletal muscle pathology

88. Hereditary diseases of the musculoskeletal system

89. Metabolic diseases of the musculoskeletal systemŤ

- osteomalacia, rachitis, avitaminosis C, osteoporosis, vonŤ

Recklinghausenřs disease

90. Osteomyelitis, tuberculosis, m. Paget, fibrous dysplasia,Ť

hypertrophic osteoathropathy

91. Osteoarthritis, suppurative arthritis, rheumatoid arthritis,Ť

spondyloarthropathias

92. Infections and non-infectious inflammatory lesions of

the skin

93. Granulomatous lesions, vascular lesions of the skin

94. Pathology of the dermal connective tissue