

TABLE OF CONTENTS



PREFACE

CELLS

Chapter 1. CELL TOPOGRAPHY

- 4 **Plate 1.** Some Features of Growing Cells
 6 2. Surface Changes During Cell Cycle
 8 3. Some Features of Differentiated Cells;
 Cilia and Stereocilia
 10 4. Some Features of Differentiated Cells;
 Microvilli
 12 5. Some Features of Differentiated Cells;
 Microplicae and Blebs

TISSUES

Chapter 2. CONNECTIVE TISSUE

- 18 **Plate 6.** Fibers and Cells

Chapter 3. BLOOD

- 22 **Plate 7.** Erythrocytes, Lymphocytes and
 Platelets
 24 8. Monocytes, Granulocytes and
 Erythroblastic Islands

Chapter 4. ADIPOSE TISSUE

- 28 **Plate 9.** Adipose Locule and Fat Associated
 Reticular Fibers
 30 10. Fat Cells

Chapter 5. BONE

- 34 **Plate 11.** Compact Bone; Haversian Systems
 36 12. Spongy Bone

Chapter 6. MUSCLE

- 40 **Plate 13.** Skeletal Muscle Fibers
 42 14. Sarcolemma and Striated Fibrils
 44 15. Cardiac Muscle Fibers and Fibrils

Chapter 7. NERVOUS TISSUE

- 48 **Plate 16.** Nerve Fibers, Node of Ranvier and
 Neurolemma

ORGAN SYSTEMS

Chapter 8. BLOOD VASCULAR SYSTEM

- 54 **Plate 17.** Heart; Endocardium
 56 18. Artery and Vein
 58 19. Capillary and Sinusoid
 60 20. Spleen; Vessel, Sinuses and Cords

Chapter 9. SKIN AND APPENDAGES

- 64 **Plate 21.** Surface Features; Epidermis and
 Dermis
 66 22. Sweat Gland and Types of Hair
 68 23. The Scalp
 70 24. Mammary Gland; Ducts and Alveoli
 72 25. Features of Secreting Alveoli

Chapter 10. BODY CAVITIES

- 76 **Plate 26.** Serosal Surfaces of Spleen
 and Intestine
 78 27. "Milky Spots" of Mesentery

Chapter 11. DIGESTIVE TRACT

- 82 **Plate 28.** Teeth; Dentin, Enamel and Pulp
 Cavity
 84 29. Tongue; Filiform and Fungiform
 Papillae
 86 30. Circumvallate Papillae
 88 31. Squamous Cell Surfaces;
 Oral Pharynx and Esophagus
 90 32. Stomach Mucosa; Cardiac Region
 92 33. Gastric Pits of Body Region
 94 34. Pyloric Region
 96 35. Mucosa of Small Intestine; Villi
 98 36. Lateral Aspect of a Villus
 100 37. Absorptive Cells and Fat Secretion
 102 38. Mucosa of Large Intestine

XII Table of contents

Chapter 12. LIVER AND GALLBLADDER		148	Plate 56. Follicle Rupture and Repair
106	Plate 39. Liver Lobule	150	56.1 Stereo Image of Ovulation
108	40. Hepatocytes and Sinusoids	150	57. Corpus Luteum
110	41. Bile Canaliculi and Spaces of Disse	152	58. Oviduct Mucosa; Ciliated and Secretory Cells
112	41.1 Stereo Image of Hepatocytes, Sinusoid and Kupffer Cell	154	59. Endometrium; Glands, Ciliated and Secretory Cells
112	42. Gallbladder; Rugae and Absorptive Cells of Mucosa	156	60. Endometrium in Secretory Phase
		158	61. Cervix; Human
		160	62. Vagina; Rabbit
		162	63. Vagina in Secretory Phase
Chapter 13. RESPIRATORY SYSTEM			
118	Plate 43. Nasal Vestibule; Squamous Epithelium		
120	44. Nasal Cavities; Ciliated, Secretory and Olfactory Surfaces	166	Chapter 16. MALE REPRODUCTIVE SYSTEM
122	45. Tracheal Surface; Ciliated, Goblet and Brush Cells	168	Plate 64. Seminiferous Tubule; Longitudinal Section
124	46. Bronchiole; Ciliated and Clara Cells	170	65. Seminiferous Tubule; Transverse Section
126	47. Lung; Respiratory Epithelium	172	66. Spermatozoa in Epididymus and Uterus
			67. Spermatozoa on Endometrium
Chapter 14. URINARY SYSTEM			
130	Plate 48. Renal Corpuscle; Glomerulus and Bowman's Capsule		Chapter 17. EYE
132	48.1 Stereo Image of Renal Corpuscle	176	Plate 68. Cornea and Lens
132	49. Podocytes	178	69. Retina; Cones, Rods and Pigmented Epithelium
134	50. Proximal Tubule	180	70. Conjunctiva
136	51. Thin Loop of Henle and Distal Tubule		
138	52. Collecting Tubule and Papillary Duct		
140	53. Urinary Bladder		
Chapter 15. FEMALE REPRODUCTIVE SYSTEM			
144	Plate 54. Surface Features of the Ovary		Chapter 18. METHODS
146	55. Oocyte and Follicle Cells	184	Plate 71. Schematic diagram of a Scanning Electron Microscope
		187	Index