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4.7 Hyperplasia and hypertrophy4.8 Atherosclerosis; 4.9 Thrombosis and embolism; 4.10 Ischaemia and infarction; 4.11 Amyloid and amyloidosis; 4.12 Infections of histological importance; 4.13 Metaplasia, dysplasia and carcinoma in situ; 4.14 Neoplasia; Part II: Clinical application and laboratory techniques; 4.15 Sampling modalities; 4.16 Fixation; 4.17 Specimen dissection; 4.18 Processing and embedding; 4.19 Microtomy; 4.20 Standard staining methods and procedures; 4.21 Frozen section; 4.22 Immunohistochemistry; 4.23 Cytopathology; 4.24 Electron microscopy; 4.25 In situ hybridization BibliographyChapter 5: Clinical chemistry; Introduction; Part I: Analytical methods; 5.1 Sample collection; 5.2 Analytical methods in clinical chemistry laboratories; 5.3 Summary: common clinical tests for sample analytes; Part II: Clinical assessments; 5.4 Urea and electrolytes (U and Es); 5.5 Metabolism and gastrointestinal markers; 5.6 Renal function tests; 5.7 Liver function tests; 5.8 Heart disease and lipid disorder tests; 5.9 Pancreatic function tests; 5.10 Bone disease assessment; 5.11 Endocrinological assessments; 5.12 Pregnancy tests and pregnancy clinical chemistry
5.13 Therapeutic drug monitoring and toxicology5.14 Clinical chemistry at the extremes of age; 5.15 Cancer biomarkers; Bibliography; Chapter 6 Medical microbiology; Introduction; 6.1 Overview of microorganisms; 6.2 Laboratory investigation of infection; 6.3 Bacteria; 6.4 Fungi; 6.5 Parasitology --- protozoa and helminths; 6.6 Viruses; 6.7 Prions; 6.8 Infections in the immunocompromised patient; 6.9 Healthcare associated infections; 6.10 Antimicrobial agents; 6.11 Vaccines; 6.12 Conclusion; Bibliography; Chapter 7 Clinical immunology; Part I: The fundamentals of immunology
7.1 Overview of the immune system

Sommario/riassunto

Biomedical Sciences is an indispensable, all encompassing core textbook for first/ second year biomedical science students that will support them throughout their undergraduate career. The book includes the key components of the IBMS accredited degree programmes, plus sections on actual practice in UK hospital laboratories (including the compilation of a reflective portfolio). The book is visually exciting, and written in an interesting and accessible manner while maintaining scientific rigour. Highlighted boxes within the text link the theory to actual clinical laboratory practice fo