Record Nr. UNINA9910789732903321 Biomedical sciences [[electronic resource]]: essential laboratory **Titolo** medicine / / edited by Ray K. Iles, Suzanne M. Docherty Pubbl/distr/stampa Chichester, West Sussex, U.K., : John Wiley & Sons Ltd, 2012 **ISBN** 1-119-96241-2 1-283-40477-X 9786613404770 1-119-95092-9 Descrizione fisica 1 online resource (440 p.) Altri autori (Persone) IlesRay K DochertySuzanne M Disciplina 616.07/5 Soggetti Diagnosis, Laboratory Medical laboratory technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Biomedical Sciences: Essential Laboratory Medicine; Contents; List of Contributors; Preface; Chapter 1: Anatomy and physiology of major organ systems; 1.1 The skeletal system; 1.2 The digestive system; 1.3 The cardiovascular system; 1.4 The urinary system; 1.5 Respiratory system; 1.6 The nervous system; 1.7 The endocrine system; Bibliography; Chapter 2: Pathophysiology; 2.1 Pathophysiology: a definition; 2.2 Introduction to epidemiology; 2.3 Introduction to

Contributors; Preface; Chapter 1: Anatomy and physiology of major organ systems; 1.1 The skeletal system; 1.2 The digestive system; 1.3 The cardiovascular system; 1.4 The urinary system; 1.5 Respiratory system; 1.6 The nervous system; 1.7 The endocrine system; Bibliography; Chapter 2: Pathophysiology; 2.1 Pathophysiology: a definition; 2.2 Introduction to epidemiology; 2.3 Introduction to pharmacology; 2.4 Gastroenterology; 2.5 Liver, biliary tract and pancreatic disease; 2.6 Rheumatology; 2.7 Urinary tract disease 2.8 Cardiovascular disease2.9 Respiratory disease; 2.10 Endocrine disease; Bibliography; Chapter 3: Clinical cell biology and genetics; 3.1 The cell; 3.2 Genetics; 3.3 Human genetic disorders; 3.4 Important techniques in molecular cell biology; Bibliography; Chapter 4: Cellular pathology; Part I: Principles of cellular pathology; 4.1 Structure and function of normal cells, tissues and organs; 4.2 Tissues and organs; 4.3 Cellular responses to injury; 4.4 Tissue responses to injury: acute inflammation; 4.5 Tissue responses to injury: chronic inflammation; 4.6 Healing and repair

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

Record Nr. UNINA9910299854603321 Autore Salandro Wesley A Titolo Electrically Assisted Forming: Modeling and Control / / by Wesley A. Salandro, Joshua J. Jones, Cristina Bunget, Laine Mears, John T. Roth Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2015 **ISBN** 3-319-08879-3 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (366 p.) Collana Springer Series in Advanced Manufacturing, , 1860-5168 Disciplina 671.732 Soggetti Manufactures Manufacturing, Machines, Tools, Processes Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Introduction to Electrically-Assisted Forming -- Bulk Modeling Methodology for Electrically-Assisted Manufacturing -- The Electroplastic Effect -- Comprehensive EAF Modeling -- Experimental Findings for EAF -- Contact Effects of EAF -- Microstructural Effects on EAF -- Phase distribution Effects on EAF -- Analysis of EAF Modeling Sensitivity and Robustness -- Broader Impacts of EAF -- Tooling design considerations -- Additional Applications of Electrically-Assisted Manufacturing (EAM) -- Control design for Electrically-Assisted Forming -- Cost and Energy Analysis. Sommario/riassunto Maximizing reader insights into the latest research findings and applications of Electrically-Assisted Forming (EAF) – whereby metals are formed under an electric current field – this book explains how such a process produces immediate improved formability of metals beyond the extent of thermal softening, and allows metals to be formed to greater elongation with lower mechanical energy as well as allowing for lightweight brittle metals such as magnesium and titanium to be formed without external heating or annealing, enabling the more effective use of these lightweight metals in design. Including case studies that illustrate and support the theoretical content and realworld applications of the techniques discussed, this book also serves to enrich readers understanding of the underlying theories that influence

electro-plastic behaviour. The authors have extensive experience in

studying Electrically-Assisted Forming and have written extensively on the topic with publications including experimental works, technical briefs, conference proceedings, journal articles, and analytical models.