Clinical Ocular Pharmacology

For those who are new to the subject, ocular pharmacology can be a difficult and sometimes overwhelming topic.nbsp; Ophthalmic Medications and Pharmacology, Second Edition is a reader-friendly guide that provides a quick review and basic clinical reference of ocular pharmacology. nbsp; In this updated and revised second edition, Drs. Duvall and Kershner present an overview to the medication and drugs found most commonly in ophthalmic practice without overwhelming those professionals new to the subject.nbsp; nbsp; Ophthalmic Medications and Pharmacology concisely reviews commonly used and prescribed medications, how they work, dosage, therapeutic use, and potential side effects.nbsp; This new edition also highlights key information for patients about the medications they encounter and are prescribed in the clinic. nbsp; Ophthalmic staff, students, and research professionals looking for an introduction and basic go-to guide will welcome having a copy of Ophthalmic Medications and Pharmacology by their side. New to this edition:

Ocular Therapeutics Handbook: A Clinical Manual is directed at the needs of optometrists, nurses and primary care physicians and provides succinct, rapid access information for most common ocular problems encountered in a primary care setting. It is divided into three sections: Quick Reference, Ocular Therapeutics and Appendices. The Quick Reference section covers such topics as ocular microbiology, lab tests and procedures, pharmaceutical agents, and side effects of medications. The Ocular Therapeutics section discusses diseases, traumatic injuries, and ocular urgencies and emergencies. The appendices provide a summary of abbreviations, conversion charts, case report sheets and important phone numbers. The chapters have been developed to serve as a snapshot, presenting the clinician with the most relevant information regarding the pathophysiology and etiology of diseases, patient demographics, signs and symptoms, lab tests, and recommended approaches to treatment. This comprehensive volume discusses approaches for a systematic selection of delivery systems for various classes of therapeutic agents including small

molecule, protein, and nucleic acid drugs. Specific topics covered in this book include: Solution, suspension, gel, nanoparticle, microparticle, and implant dosage forms Refillable and microneedle devices Intravitreal, suprachoroidal, intrascleral, transscleral, systemic, and topical routes of delivery Physical methods including iontophoresis for drug delivery Rational selection of routes of administration and delivery systems Noninvasive and continuous drug monitoring Regulatory path to drug product development Clinical endpoints for drug product

development Emerging and existing drugs and drug targets Drug Product Development for the Back of the Eye is authored by renowned ocular drug delivery experts, representing academic, clinical, and industrial organizations and serves as indispensable resource for ophthalmic researchers, drug formulation scientists, drug delivery and drug disposition scientists, as well as clinicians involved in designing and developing novel therapeutics for the back of the eye diseases. This book is also relevant for students in various disciplines including ophthalmology, pharmaceutical sciences, drug delivery, and biomedical engineering. Refillable and microneedle devices Intravitreal, suprachoroidal, intrascleral, transscleral, systemic, and topical routes of delivery Physical methods including iontophoresis for drug delivery Rational selection of routes of administration and delivery systems Noninvasive and continuous drug monitoring Regulatory path to drug product development Clinical endpoints for drug product development Emerging and existing drugs and drug targets Drug Product Development for the Back of the Eye is authored by renowned ocular drug delivery experts, representing academic, clinical, and industrial organizations and serves as indispensable resource for ophthalmic researchers, drug formulation scientists, drug delivery and drug disposition scientists, as well as clinicians involved in designing and developing novel therapeutics for the back of the eye diseases. This book is also relevant for students in various disciplines including ophthalmology, pharmaceutical sciences, drug delivery, and biomedical engineering. Refillable and microneedle devices Intravitreal, suprachoroidal, intrascleral, transscleral, systemic, and topical routes of delivery Physical methods including iontophoresis for drug delivery Rational selection of routes of administration and delivery systems Noninvasive and continuous drug monitoring Regulatory path to drug product development Clinical endpoints for drug product development Emerging and existing drugs and drug targets Drug Product Development for the Back of the Eye is authored by renowned ocular drug delivery experts, representing academic, clinical, and industrial organizations and serves as indispensable resource for ophthalmic researchers, drug formulation scientists, drug delivery and drug disposition scientists, as well as clinicians involved in designing and developing novel therapeutics for the back of the eye diseases. This book is also relevant for students in various disciplines including ophthalmology, pharmaceutical sciences, drug delivery, and biomedical engineering.

Now updated and expanded to cover the latest technologies, this full-color text on clinical refraction uses an easy-to-read format to give optometry students and practitioners all the important information they need. Also covers a wide range of other aspects of the eye exam, including anterior and posterior segment evaluations, contact lens, ocular pharmacology, and visual field analysis. Four new chapters cover wavefront-guided refraction, optical correction with refractive surgeries, prosthetic devices, and patients with ocular pathology. Offer precise, step-by-step how-to's for performing all of the most effective refractive

techniques. Presents individualized refractive approaches for the full range of patients, including special patient populations. Contribbtors are internationally recognized, leading authorities in the field. New full-color design with full-color images throughout. Completely updated and expanded to include current technologies. A new chapter on Optical Correction with Refractive Surgeries, including keratoplasty, traditional refractive surgeries (e.g. LASIK and PRK), crystalline lens extraction with and without pseudophakia, the new presbyopic surgery, etc. A new chapter on Wavefront Guided Refraction provides information on the advantages and limitations the Hartmann-Shack Method for objective refraction plus aberrometry and the refraction and the use of in the correction of the eye with spectacles, contact lenses, and refractive surgery. A new chapter on Patients with Ocular Pathology reflects the most current knowledge of patients with ocular pathologies. Provides information on Optical Correction with Prosthetic Devices, including corneal onlays, stromal implants, phakic intraocular lenses, etc. Includes new chapters and/or discussions on such topics as: Aberrations of the Eye, Refractive Consequences of Eye Pathology, Diagnosis and Treatment of Dry Eye, Diagnosis of Pathology of the Anterior Segment, Diagnosis of Glaucoma, and Diagnosis of Pathology of the Posterior Segment. Visual Acuity chapter expanded to include the effect of refractive error on visual acuity and statistics on how much of a change in visual acuity is significant. Objective Refraction, Corneal Topography, and Visual Field Analysis chapters include the addition of new electro-optical and computer techniques and equipment. Chapters on Multifocal Spectacle Lenses and Contact Lenses now cover newer progressive addition lenses and contact lenses that are now on the market. Electrodiagnosis chapter revised to take a more clinical approach. Written by experts in the field, this comprehensive resource offers valuable information on the practical uses of drugs in primary eye care. Discussions of the pharmacology of ocular drugs such as anti-infective agents, anti-glaucoma drugs, and anti-allergy drugs lead to more in-depth information on ocular drugs used to treat a variety of disorders, including diseases of the eyelids, corneal diseases, ocular infections, and glaucoma. The book also covers ocular toxicology, focusing on drug interactions, ocular effects of systemic drugs, and lifethreatening systemic emergencies.

Small Animal Clinical Pharmacology is a practical, clinically-oriented pharmacology text designed to provide the veterinary student and practitioner with all the relevant information needed when designing drug treatment regimens for pets in small animal veterinary practice. Comprehensively updated and revised, the second edition of this core text covers essential new information on drugs used in the management of a range of presenting conditions including heart disease and cardiac arrhythmias. For the second edition new authors, superb new illustrations and a second colour have all been introduced. With its unique approach combining a thorough understanding of the pharmacological action of drugs with a basic understanding of the relevant physiology and

pathophysiology of systems and tissues affected, Small Animal Clinical Pharmacology continues to be an indispensable book for all veterinary students and practitioners. Organised by drug class in a uniform and detailed structure which means it is easy to locate key information on dose rates, routes of administration, drug interactions and special considerations at a glance Key chapters based around treatment of disorders of particular body systems, eg cardiovascular and thyroid disorders Essential introductory chapters covering pharmacokinetics, general pharmacological principles and adverse reactions for a thorough basic grounding in the subject All authors are experienced clinicians and recognised experts in their field who bring a down to earth and practical approach to the text

Practical, clinically focused coverage provides a one-stop diagnostic guide to ophthalmic disease in small and large animals including birds and exotic pets.Logical organization by anatomic region makes topics easy to locate.Nearly 1,000 color images present illustrated, step-by-step procedures that guide you through the recognition, diagnosis, and treatment of ocular conditions you are most likely to encounter. A team of three internationally respected veterinary ophthalmologists co-edit this reference to provide comprehensive, clinical expertise. Useful tables and charts summarize important facts and show treatment instructions at a glance. "Clinical Tips" boxes offer helpful practice advice. NEW pharmaceutical therapies and procedural techniques provide the most current diagnostic and treatment methods. Extensive updates including the latest information on pharmacology, eyelid surgery, tear film deficiencies, and retinal disease help you provide the most current, effective care.NEW sections on ophthalmic diseases of chinchillas and guinea pigs provide expert guidance in the care of these increasingly popular exotic pets.NEW!" "Detailed table of contents describes the specifics of coverage in each chapter. NEW! Pageburst companion website makes the entire contents of the book fully searchable. "Sold separately. "

Eye on New Discoveries

Basic Sciences in Practice

Text and CD-ROM

The Actions and Uses of Ophthalmic Drugs

Ocular Therapeutics Handbook

A Systematic Approach

Kanski's Clinical Ophthalmology E-Book

Oxford Handbook of Ophthalmology

This book provides basic knowledge about pharmacology and therapeutics of important drugs related to ophthalmic practice. The book will be of great help to ophthalmologists, who are doing wonders for the patients with their surgical skills, but often face difficulty in finding a proper drug necessary to combat the inflammatory or infective processes.

This book is a comprehensive guide to ocular pharmacology for

trainees and practising ophthalmologists. Beginning with the basic physiological aspects of ocular pharmacology and ophthalmic drug administration, the following sections discuss different types of drugs used in the treatment of eve disease. The final sections examine contact lens care systems, nutritional supplements and adverse effects of systematically administered drugs into the eye. This useful, quick reference text is highly illustrated with more than 145 images and tables. Key points Comprehensive guide to ocular pharmacology for trainees and practising ophthalmologists Covers different drugs for treatment of eye diseases Includes section on adverse effects of systematically administered drugs Highly illustrated with more than 145 images and tables This handbook offers a systematic summary of ophthalmic disease directed towards diagnosis, interim assessment and ongoing management. Now including an extensive online image bank the fourth edition provides rapid access to the information when it is needed, whether in the clinic, theatre or on the ward Through eight outstanding editions, Kanski's Clinical Ophthalmology has been the classic specialty textbook, providing the perfect ophthalmology foundation for trainees and a valuable reference source for experienced practitioners. Building on the previous edition by Dr. Brad Bowling, Dr. John Salmon from Oxford University has comprehensively revised the textbook. The 9th Edition retains Dr. Kanski's highly effective format of succinct text and visually dynamic presentation, providing authoritative, focused guidance on the diagnosis and management of ophthalmic disorders. Extremely well organized and comprehensive in scope, this visually stunning book reflects the latest advances in the field, facilitating quick comprehension to enhance learning, aid exam preparation and guide clinical practice. As a general ophthalmic textbook, this is the gold standard. Uses targeted text, bulleted lists, tables, and visual aids to highlight salient points across all ophthalmology subspecialties. Includes 2,600 illustrations, including more than 1,000 new images of common and rare conditions and arrows to show the exact pathology. Features detailed updates on new therapeutic interventions for neurological disease and ocular tumours; new imaging techniques such as OCT, OCT angiography, and MRI; and new topics such as circadian rhythms, graft vs host disease and the effects of Ebola virus infection on the eye. Presents examination techniques in a new, separate chapter and contains new "tips" on key issues in every chapter. Provides up-to-date information on hot topics such as intravitreal treatment with anti-VEGF agents for macular disease, genetic advances in hereditary retinal dystrophies, the use of biological agents in the treatment of uveitis and scleritis and new surgical advances such as MIGS for glaucoma and limbal stem cell grafting.

An indispensable and fully comprehensive textbook, this covers the basic sciences in ophthalmology and is the only book you need to pass the FRCOphth Part 1 exam.

The Neurology of Eye Movements provides clinicians with a synthesis

of current scientific information that can be applied to the diagnosis and treatment of disorders of ocular motility. Basic scientists will also benefit from descriptions of how data from anatomical, electrophysiological, pharmacological, and imaging studies can be directly applied to the study of disease. By critically reviewing such basic studies, the authors build a conceptual framework that can be applied to the interpretation of abnormal ocular motor behavior at the bedside. These syntheses are summarized in displays, new figures, schematics and tables. Early chapters discuss the visual need and neural basis for each functional class of eye movements. Two large chapters deal with the evaluation of double vision and systematically evaluate how many disorders of the central nervous system affect eye movements. This edition has been extensively rewritten, and contains many new figures and an upto-date section on the treatment of abnormal eye movements such as nystagmus. A major innovation has been the development of an option to read the book from a compact disc, make use of hypertext links (which bridge basic science to clinical issues), and view the major disorders of eye movements in over 60 video clips. This volume will provide pertinent, up-to-date information to neurologists, neuroscientists, ophthalmologists, visual scientists, otalaryngologists, optometrists, biomedical engineers, and psychologists.

The Veterinary Consult" version of this title provides electronic access to the complete content of this book. "Veterinary Consult" allows you to electronically search your entire book, make notes, add highlights, and study more efficiently. Purchasing additional "Veterinary Consult" titles makes your learning experience even more powerful. All of the "Veterinary Consult" books will work together on your electronic 'bookshelf', so that you can search across your entire library of veterinary books. "Veterinary Consult": It's the best way to learn!

50 Studies Every Ophthalmologist Should Know

Anatomy; Ocular physiology; Biochemistry and genetics; Pathology; Microbiology; Immunology; Growth and senescence; Optics

;Therapeutics ;Lasers and instrument technology ;Basic biostatistical and epidemiological terms

A Clinical Manual

The Eye

Pharmacologic Therapy of Ocular Disease

Pharmacology of the Eve

Clinical Ophthalmic Pharmacology

Slatter's Fundamentals of Veterinary Ophthalmology

Never HIGHLIGHT a Book Again! Virtually all of the testable terms, concepts, persons, places, and events from the textbook are included. Cram101 Just the FACTS101 studyguides give all of the outlines, highlights, notes, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanys: 9780750675765.

Covering ocular pharmacokinetics, pharmacodynamics, and toxicology, Ocular Pharmacology and Toxicology provides ophthalmologists, toxicologists, and pharmacologists with both an introduction

to the proper methods for ocular pharmacology and toxicology as well as providing practical methodologies for conducting ocular studies. Expert authors have contributed detailed chapters on study design, analysis, and routes to regulatory approval for various types and routes of ophthalmic drugs. As a volume in the Methods in Pharmacology and Toxicology series, chapters feature the kind of in-depth specifics and implementation advice to ensure successful results. Practical and authoritative, Ocular Pharmacology and Toxicology serves as an ideal basis of training in the proper design and conduct of essential studies to accurately determine pharmacokinetics and ocular toxicity from the systemic, topical, periocular, or intraocular administration of drugs or compounds, from the use of ocular medical devices and from ocular surgical procedures.

This handy guide puts the essentials of ocular therapeutics in your pocket. Features the clinical information from CLINICAL OCULAR PHARMACOLOGY, 4/E in a concise, easy-to-use format. A must-have for diagnosing and treating common ocular disorders, coverage includes quick reference to syndromes and conditions encountered in daily practice, such as glaucoma, conjunctivitis, and retinal disorders.

Ocular Therapeutics: Eye on New Discovery focuses on emerging areas in ocular research, from new approaches to dry eye to gene therapy in the management of retinal diseases. This comprehensive book features more than 25 chapters of information that will be vital for ocular investigators and ophthalmologists bringing them new information on promising therapeutics. It is the intent of this book to provide not only information on current approaches to treatment, but also in giving the reader a greater understanding as to what may become available for treating a number of important eye diseases. Each chapter features some new aspect of treatment that holds great promise for the future. The approach has been to concentrate on those areas of ocular diseases that are more prevalent. It also features new insight for drug delivery and for managing devasting diseases, such as macula edema and glaucoma, two of the leading causes of blindness in the United States. This book will serve as an important resource as it contains a number of relevant references highlighted for their importance to the field. New investigators will be able to obtain an historical perspective for each of the topics and to develop an understanding of the new research directions that are underway. Ocular Therapeutics: Eye on New Discovery is more than a reference book, as it also provides an important glimpse into the near future. * Contains information that is vital for ocular investigators and ophthalmologists bringing them new information on promising therapeutics. * Provides not only information on current approaches to treatment, but also gives the reader a greater understanding as to what may become available for treating a number of important eye diseases. * Historical perspective for each of the topics as well as an important glimpse into the near future to develop an understanding of the new research directions underway. * New insight for drug delivery and for managing devastating diseases, such as macula edema and glaucoma, two of the leading causes of blindness in the United States

Synopsis of Clinical Ophthalmology, by Jack J. Kanski and Brad Bowling, efficiently distills all the essential information you need to effectively diagnose and manage a comprehensive range of ophthalmic disorders. A concise format makes it easy to quickly learn and understand the "must-know" aspects of each condition. When time is of the essence, turn to Synopsis of Clinical Ophthalmology for accessible guidance to meet your diagnostic and point-of-care needs! Consult this title on your favorite e-reader, conduct rapid searches, and adjust font sizes for optimal readability. Get guidance you can trust from a portable, practical handbook that distills all the key information from Clinical Ophthalmology: A Systematic Approach - Drs. Kanski and Bowling's best-selling comprehensive eye reference. Visualize the most common eye disorders more clearly with the help of a completely revised image library, including clinical photographs and over 800 full-color

illustrations, many of which are new. Remain current in practice with the latest advances in the treatment of retinal vascular disease (including new therapies for macular disorders); new drug therapies; updated surgery techniques for oculoplastic, corneal, and glaucoma surgery; and examination tips, imaging, and associated systemic conditions.

This book covers all the pharmacology you need, from basic science pharmacology and pathophysiology, through to clinical pharmacology to therapeutics, in line with the integrated approach of new medical curricula. The first section covers the basic principles, and the rest is organised by body systems. The book ends with sections on toxicity and prescribing practice. Integrates basic science pharmacology, clinical pharmacology and therapeutics Brief review of pathophysiology of major diseases Case histories and multiple choice questions (and answers) Tabular presentation of all common drugs within each class Section on further reading Kinetics chapter simplified with more practical examples Includes more on genetic issues Drug tables made more concise to make information more accessible Fully updated to reflect current clinical practice 40 Early Receptor Potential

Ocular Pharmacology and Toxicology

Clinical Ocular Pharmacology, Third Edition

Essentials of Veterinary Ophthalmology

Principles and Practice of Clinical Electrophysiology of Vision

Ophthalmic Medications and Pharmacology

Basic Clinical Ocular Pharmacology

Cram101 Textbook Outlines to Accompany

Pocket Companion to Clinical Ocular Pharmacology

Clinical Ocular Pharmacology, Second Edition covers the diagnostic and therapeutic clinical procedures in the administration of drugs to the eye. This book is organized into five parts encompassing 35 chapters that evaluate the basic pharmacologic principles that govern the different types of ophthalmic drugs. It addresses the pharmacologic agents useful in the diagnosis and treatment of ocular diseases. Some of the topics covered in the book are the basic science of ocular pharmacology; clinical administration of ocular drugs; drugs affecting the autonomic nervous system; types of local anesthetics; review of anti-inflammatory drugs; and examination of inhibitors of aqueous formation. Other parts deal with the development of contact lens solution in clinical practice and the pharmacologic management of strabismus. These topics are followed by discussions of the legal basis of using drugs in optometry and the systemic effects of ocular drugs. The concluding part is devoted to the diseases of the optic nerve. The book can provide useful information to doctors, optometrists, pediatricians, students, and researchers. The Actions and Uses of Ophthalmic Drugs, Third Edition discuses the application and discrimination in the use of

ophthalmic drugs. The book reviews the general pharmacological principles including drug nomenclature, pharmacological classification, pharmacokinetics, pharmacodynamics, and the use of these drugs. Ophthalmic drugs (cycloplegics, mydriatics, miotics) directly or indirectly, stimulate or inhibit a part of the autonomic nervous system connected to the intra-ocular muscles. The text investigates in detail the structure and function of this involuntary nervous system in the orbital region as it is affected by these drugs. The book explains the different drug classifications, their therapeutic and diagnostic purposes, including the ideal properties, indications, contra-indications, mode of action, or adverse effects of cycloplegics, of mydriatics, and of miotics. The book also describes the uses and characteristics of local anesthetics, stains, anti-infective agents, and miscellaneous agents (antihistamines, vasoconstrictors). The text explains the different types of contact lens solutions, application of ocular first aid, as well as, the possible adverse ocular reactions that can occur during ophthalmic drug therapy. This book is suitable for optometrists, pharmacists, pharmacologists, students and professors related to the discipline of optometry and general medicine. Beskrivelse: Written by experts in the field, this comprehensive resource offers valuable information on the practical uses of drugs in primary eye care. Discussions of the pharmacology of ocular drugs such as anti-infective agents, anti-glaucoma drugs, and anti-allergy drugs lead to more in-depth information on ocular drugs used to treat a variety of disorders, including diseases of the eyelids, corneal diseases, ocular infections, and glaucoma. The book also covers ocular toxicology, focusing on drug interactions, ocular effects of systemic drugs, and lifethreatening systemic emergencies. A logical organization makes it easy to find essential information. Complete coverage of the basic fundamentals of pharmacology such as ocular drug delivery and ocular drug formulations. Comprehensive reviews of the pharmacology of specific classes of agents such as the cycloplegics, antiglaucoma drugs, anti-inflammatory drugs, ocular irrigating solutions, and contact lens care products. Indepth information on ocular drugs used in clinical practice, including chapters on drugs used to treat eyelid disorders,

lacrimal diseases, conjunctiva diseases, corneal diseases, allergies, uveitis, postoperative cataract, retinal diseases, and glaucoma. Coverage of ocular toxicology, including drug interactions, ocular effects of systemic drugs, and life-threatening systemic emergencies. Completely revised and updated content that reflects the latest advances in pharmacology. Updated information on postoperative drugs, including LASIK follow up medications. Expanded coverage in the chapters on Anti-infective Drugs, Anti-allergy Drugs and Decongestants, and Lubricants and Other Preparations of Ocular Surface Disease that includes the latest advancements in antibiotics and medications used to treat allergies and dry eye. A dosage quick reference guide on the inside front cover for guick and easy access. Information on the use of herbal medications. "50 Ophthalmology Studies Every Ophthalmologist Should Know" succinctly summarizes the most important and clinically relevant studies published in the mainstream ophthalmology literature in the past 40 years. Emphasis has been placed on landmark studies, rather than studies that are most frequently cited, which changed thinking and practice in the field. Most are randomized controlled trials that have helped shape current ophthalmology practice guidelines; However, some important observational (cohort, case-control, and descriptive) studies are also included. The book is divided into 7 sections, corresponding to anatomical segment or disease of the eye (cornea, cataract, glaucoma, vitreoretinal, macula, uveal tract, and orbit/eyelids/extraocular muscles/optic nerve). Each chapter finishes with an illustrative clinical case. Ophthalmology has a particular relevance to physicians working in primary care, internal medicine, neurology, neurosurgery, pediatrics, and emergency medicine. For ophthalmologists, each chapter has a reference to the relevant section of the practice guidelines of the American Academy of Ophthalmology"--

Essentials of Veterinary Ophthalmology, Third Editionoffers an updated introduction to the diagnosis and clinicalmanagement of ocular conditions in veterinary patients, providingtrusted information in a user-friendly format. The content of the book is distilled from the fifth edition of the gold-standardreference Veterinary Ophthalmology, emphasizing theinformation most relevant to

veterinary students and generalpractitioners. Fully updated throughout, the Third Editionfocuses more strongly on small animals and horses, with streamlinedcoverage of other species, and new chapters have been added onmorphology, physiology, and pharmacology. Carefully designed to be equally useful for learning and inpractice, the book offers a streamlined, practical approach, withbolded terms to enhance comprehension. High-quality colorphotographs provide visual depictions of the conditions discussed. Essentials of Veterinary Ophthalmology, ThirdEdition is an indispensable resource for veterinary students orclinicians wishing to hone their ophthalmology knowledge andskills. Preceded by The eye / John V. Forrester ... [et al.]. 3rd ed. 2008.

Essential information on ocular therapeutics in a handy, pocket-sized format. Content is brief, to the point, and easy to access -- the ideal companion to a clinician's busy practice.

Borish's Clinical Refraction - E-Book

Ocular Pharmacology

Textbook on Clinical Ocular Pharmacology & Therapeutics

Essentials of Ocular Pharmacology and Therapy

Pocket Companion

Clinical Ocular Pharmacology

Ocular Therapeutics

Handbook of Basic and Clinical Ocular Pharmacology and

Therapeutics

There have been major advancements in the pharmacologic treatment of eye diseases over the past decade. With newly discovered disease targets and novel approaches to deliver therapeutic compounds to the eye, patients are seeing improved outcomes. Not only are there better treatments for diseases where treatments existed, we now have effective therapy for previously untreatable and blinding eye disorders. This volume will cover the pharmacologic treatment of eye diseases from the front of the eye including eyelids, conjunctiva and cornea all the way back to the retina and optic nerve. The first section of the volume reviews general principles of ocular pharmacology, pharmacokinetics, pharmaceutical sciences, and drug delivery. In addition, the volume provides an up to date guide to the pharmacologic approach to the key eye diseases that threaten sight or ocular function.

Roots of the theory and practice of ocular pharmacology may be traced to the ancient Mesopotamian code of Hammurabi and then to several papyri reflecting the clinical interests of the Egyptians. The evolution of its art and science was irregularly paced until the nineteenth century when Kohler, in 1884, proved the

anesthetic effect of cocaine on the cornea, and when Fraser, Laquer, Schmiedeberg, Meyer, and others studied the pharmacology of the autonomic nervous system by way of observations of the pupil. Advances in the past few decades have been nothing short of explosive. How can the student, physician, or basic research scientist stay in touch with these electrifying studies? To help with the answer to this question, the authors set as their goal the development of increased understanding so that the student, research scientist, and ophthalmologist can cope with the latest discoveries. The authors want to narrow what appears to be an ever-increasing gap between basic science and ophthalmology. The basic aspects of pharmacology have been presented in light of the natural physiology. In this regard, while distinctions among endogenous mechanisms, drug effects, and the pathogenesis of disease are to be separately recognized, appreciation must be given to the concept that both the desirable and unwanted manifestations or functions caused by either disease or drugs must very often represent a quantitative change in normal metabolic pathways. This book comprises an integrated review of ocular therapeutics across all relevant fields. It addresses the real-world requirements of ophthalmologists, pharmacists and optometrists, as observed through working alongside these practitioners for two decades. Knowledge surrounding agents used in ophthalmic practice has, historically, been scattered. The book facilitates understanding of ocular drug therapy by compiling all key aspects of the pharmacology, toxicology, pharmaceutical science, ocular biochemistry and cell biology of these agents. Chapters detail drug transfer across barriers, systemic toxicity of topically applied drugs, autonomic drugs used for diagnostics, as well as anti-inflammatory, antiallergic, glaucoma and antimicrobial therapies, and avenues for the development of new ocular drugs. Applications of extemporaneously prepared formulations are described to inform day-to-day clinical practice. The use of mucoadhesive polymers in tear substitutes, ocular drug delivery systems, stem cell therapy, pharmacogenomics and antiangiogenic ocular chemotherapy are also explored. The book also provides insights from drugs of herbal origin, and a historical perspective on drugs for ocular use. Practicing and resident ophthalmologists, optometrists, pharmacists, nursing professionals, scholars in ocular drug research and students will equally benefit from this comprehensive quide.

The third edition of Ocular Therapeutics brings practitioners up to date with the latest advances in ophthalmic drugs. Divided into three sections, the book begins with discussion on the physiology of the eye, drug administration and the fundamental role of ocular therapeutics. The second section examines the application of ocular therapeutics in ophthalmic surgery for many different disorders and the final section discusses recent advances and future developments. This new edition has been fully updated with the addition of new drugs and delivery systems, covering all groups of drugs used worldwide in different clinical conditions of the eye. Written by recognised international

experts, many from the USA, the book is presented in an easy to read format and includes nearly 430 well-illustrated colour figures, tables, flow diagrams and chemical formulas. Key points New edition bringing ophthalmologists up to date with latest advances in ophthalmic drugs Includes new drugs and delivery systems for all groups of drugs used worldwide Written by recognised international experts Nearly 430 figures, tables, flow diagrams and chemical formulas Previous edition published in 2006

Handbook of Basic and Clinical Ocular Pharmacology provides a review of the basic anatomy, physiology, biochemistry and pathology of the eye with a focus drug therapy, drug delivery and use of therapeutic medical miniature devices. An understanding of the pharmacological actions of drugs acting on the eye requires the student and health care practitioner to learn additional principles in basic and clinical sciences that are unique to this organ. As a sensory organ, the eye is relatively inaccessible to the systemic circulation due to the blood-vitreous, bloodaqueous and blood-retinal barriers. Consequently, the administration of drugs for therapeutic effects in the eye necessitates an understanding of physico-chemical properties of the molecules and pharmacokinetic principles involved in the access to its site of action via topical, intracameral and intravitreal administration. This book includes information on the general principles of pharmacokinetics and pharmacodynamics of drugs as it pertains to the eye and in combating ocular disorders and diseases. Using a disease-themed approach, the book discusses basic and clinical pharmacological principles involved in the therapy of these diseases including the ocular side effect of systemically-administered drugs, drugs used in ophthalmic surgery and miscellaneous agents, the therapeutic utility of biologics, drug conjugates, combination products, gene and cellular therapy are also covered. Handbook of Basic and Clinical Ocular Pharmacology is useful as a primary and secondary source of reference for up-to-date information about the pharmacological mechanisms of action, pharmacokinetics, side effects, drug-drug interactions and therapeutic indications of drugs for pharmacologists, pharmaceutical scientists, students in the health care disciplines (nursing, pharmacy, optometry, medical), and practitioners in optometry and ophthalmology. Explains the mechanisms of action, side-effects and therapeutic uses of drugs, biologics, miniature devices, gene and cellular therapies for the eye Provides a comprehensive review of the anatomy, physiology, biochemistry, pharmacology, microbiology, genetics and pathology of parts of the eye involved in drug therapy to combat eye disorders and diseases Explores the pharmacological and clinical basis of drugs, drug conjugates, combination products used in the treatment of anterior and posterior segment diseases

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Medical Pharmacology and Therapeutics E-Book
Outlines and Highlights for Clinical Ocular Pharmacology by Jimmy D Bartlett
Pharmacology of Ocular Therapeutics