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Fenner's Veterinary, Virology, Fourth Edition, is the long awaited new edition of Veterinary Virology, 3e, which was published in 1999. Fully revised and updated by the new author team, part I presents the fundamental principles of virology related to animal infection and disease, and part II addresses the clinical features, pathogenesis, diagnosis, epidemiology and prevention of individual diseases. New to this Edition New author team - one main author to ensure that the book reads like an authored book but with the benefit of using experts to contribute to specific topics Text has been refocused - part I has been condensed and where appropriate incorporated into part II to

make it more user friendly The number of figures have been increased and are now in full color Fully revised and updated to include the latest information in the field of veterinary virology Beautifully illustrated color figures throughout Organized and current information provided by an expert team of authors

Veterinary Virology deals with basic biomedical virology and the clinical discipline of infectious diseases. The book discusses the principles of virology as effecting future developments in the search for preventive and management of infectious diseases in animals, whether singly or as a whole herd or flock. Part I explains the principles of animal virology including the structure, composition, classification, nomenclature, cul-

tivation, and assay of viruses. This part also discusses viral genetics, replication, and evolution (including mutation and genetic engineering). The book also reviews the pathogenesis of viruses, host resistance and susceptibility, as well as the mechanisms of persistent infections and tumor induction. Part II deals with viruses found in domestic animals; this part also explains in detail the properties, replication methods, pathogenesis, immunity, diagnosis, and control of some common viruses. The book discusses some other families of viruses of which no members are yet known as to have caused serious or important diseases in animals. Veterinarians, immunologists, virologists, molecular researchers, students, and academicians in the

discipline of virology and cellular biology, as well as livestock owners will find this book helpful.

The foundational textbook on the study of virology *Basic Virology*, 4th Edition cements this series' position as the leading introductory virology textbook in the world. It's easily read style, outstanding figures, and comprehensive coverage of fundamental topics in virology all account for its immense popularity. This undergraduate-accessible book covers all the foundational topics in virology, including: The basics of virology Virological techniques Molecular biology Pathogenesis of human viral disease The 4th edition includes new information on the SARS, MERS and COVID-19 coronaviruses, hepatitis C virus, influenza virus, as well as HIV and Ebola. New virological techniques including bioinformatics and advances in viral therapies for human disease are also explored in-depth. The book also includes entirely new sections on metapneumoviruses, dengue virus, and the chikungunya virus.

An essential illustrated guide to the 101 most fascinating viruses This stunningly illustrated book provides a rare window into

the amazing, varied, and often beautiful world of viruses. Contrary to popular belief, not all viruses are bad for you. In fact, several are beneficial to their hosts, and many are crucial to the health of our planet. *Virus* offers an unprecedented look at 101 incredible microbes that infect all branches of life on Earth—from humans and other animals to insects, plants, fungi, and bacteria. Featuring hundreds of breathtaking color images throughout, this guide begins with a lively and informative introduction to virology. Here readers can learn about the history of this unique science, how viruses are named, how their genes work, how they copy and package themselves, how they interact with their hosts, how immune systems counteract viruses, and how viruses travel from host to host. The concise entries that follow highlight important or interesting facts about each virus. Learn about the geographic origins of dengue and why old tires and unused pots help the virus to spread. Read about Ebola, Zika, West Nile, Frog virus 3, the Tulip breaking virus, and many others—how they were discovered, what their hosts are, how they are transmitted,

whether or not there is a vaccine, and much more. Each entry is easy to read and includes a graphic of the virus, and nearly every entry features a colored image of the virus as seen through the microscope. Written by a leading authority, this handsomely illustrated guide reveals the unseen wonders of the microbial world. It will give you an entirely new appreciation for viruses.

Molecular Virology of Human Pathogenic Viruses presents robust coverage of the key principles of molecular virology while emphasizing virus family structure and providing key context points for topical advances in the field. The book is organized in a logical manner to aid in student discoverability and comprehension and is based on the author's more than 20 years of teaching experience. Each chapter will describe the viral life cycle covering the order of classification, virion and genome structure, viral proteins, life cycle, and the effect on host and an emphasis on virus-host interaction is conveyed throughout the text. *Molecular Virology of Human Pathogenic Viruses* provides essential information for students and

professionals in virology, molecular biology, microbiology, infectious disease, and immunology and contains outstanding features such as study questions and recommended journal articles with perspectives at the end of each chapter to assist students with scientific inquiries and in reading primary literature. Presents viruses within their family structure Contains recommended journal articles with perspectives to put primary literature in context Includes integrated recommended reading references within each chapter Provides access to online ancillary package inclusive of annotated PowerPoint images, instructor's manual, study guide, and test bank Principles of Virology, the leading virology textbook in use, is an extremely valuable and highly informative presentation of virology at the interface of modern cell biology and immunology. This text utilizes a uniquely rational approach by highlighting common principles and processes across all viruses. Using a set of representative viruses to illustrate the breadth of viral complexity, students are able to understand viral reproduction and pathogenesis and are equipped with the necessary tools for fu-

ture encounters with new or understudied viruses. This fifth edition was updated to keep pace with the ever-changing field of virology. In addition to the beloved full-color illustrations, video interviews with leading scientists, movies, and links to exciting blogposts on relevant topics, this edition includes study questions and active learning puzzles in each chapter, as well as short descriptions regarding the key messages of references of special interest. Volume I: Molecular Biology focuses on the molecular processes of viral reproduction, from entry through release. Volume II: Pathogenesis and Control addresses the interplay between viruses and their host organisms, on both the micro- and macroscale, including chapters on public health, the immune response, vaccines and other antiviral strategies, viral evolution, and a brand new chapter on the therapeutic uses of viruses. These two volumes can be used for separate courses or together in a single course. Each includes a unique appendix, glossary, and links to internet resources. Principles of Virology, Fifth Edition, is ideal for teaching the strategies by which all

viruses reproduce, spread within a host, and are maintained within populations. This edition carefully reflects the results of extensive vetting and feedback received from course instructors and students, making this renowned textbook even more appropriate for undergraduate and graduate courses in virology, microbiology, and infectious diseases.

Fundamentals of Plant Virology is an introductory student text covering all of modern plant virology. The author, Dr. R.E.F. Matthews, has written this coursebook based on his classic and comprehensive Plant Virology, Third Edition. Four introductory chapters review properties of viruses and cells and techniques used in their study. Five chapters are devoted to current knowledge of all major plant viruses and related pathogens. Seven chapters describe biological properties such as transmission, host response, disease, ecology, control, classification, and evolution of plant viruses. A historical and future overview concludes the text. Fundamentals of Plant Virology is a carefully designed instructional format for a plant virology course. It is also an invaluable

able resource for students of plant pathology and plant molecular biology. Summarizes knowledge on all aspects of plant virology Condenses all essential material from Plant Virology 3/e Compares basic properties of cells and viruses Outlines principles of gene manipulation technology Discusses serological techniques including monoclonal antibodies Geared to student level course

This is a concise, highly accessible introduction to medical virology, incorporating essential basic principles as well as a systematic review of viruses and viral diseases. It pays particular attention to developments in anti-viral therapy that are becoming increasingly effective in modern medicine. It is an ideal textbook for the information-overloaded student and an invaluable everyday companion for the busy professional who needs a good understanding of the current state of medical virology. In keeping with the highly successful format of other Illustrated Colour Texts, it presents the subject as a series of succinct 2 page 'learning units', using a superb collection of clear illustrations and clinical photographs, concise yet comprehensive text and

key point boxes to aid quick access to information and examination preparation. So whether you are a medical student, junior doctor, medical scientist, trainee in infectious diseases or student on another allied medical course, this book is here to make your life easier! It will also provide a very solid foundation for any who plan to delve deeper into this fascinating field. Part of the popular Illustrated Colour Text series Information presented in double page spreads for easy learning Highly illustrated with both full colour graphics and clinical photographs Each spread includes a key point box for exam preparation

This book guides through the fascinating world of viruses and makes readers enjoy science in an accessible way. Virologist and author Professor Van Wilson imparts knowledge about what viruses are, how they work, and how much they impact life on Earth. The book equips the reader with the scientific basics behind virus function and presents the historic milestones of virus research and discovery. Well-known viruses such as HIV or Influenza are tackled alongside novel pathogens like coron-

avirus SARS-CoV-2. Professor Wilson explores where they come from and how they impact our society. Last but not least the book provides exciting insights into how our immune system reacts to different viruses and how vaccines contribute to conquer pandemics. While scientifically informative, this book makes the field of virology understandable to a lay audience and encourages readers to further thinking. And more importantly, it conveys the wonder, beauty, and mystery of these ubiquitous, microscopic marvels. This book addresses anyone interested in understanding the principles of virology, viral diseases, or the impact of viruses on human societies.

A key resource for FRC-Path and MRCP trainees, mapped to the current curriculum, using over 300 exam-style Q&A.

The essential reference of clinical virology Virology is one of the most dynamic and rapidly changing fields of clinical medicine. For example, sequencing techniques from human specimens have identified numerous new members of several virus families, including new polyomaviruses, orthomyxoviruses, and bunyaviruses. Clinical Virology,

Fourth Edition, has been extensively revised and updated to incorporate the latest developments and relevant research. Chapters written by internationally recognized experts cover novel viruses, pathogenesis, epidemiology, diagnosis, treatment, and prevention, organized into two major sections: Section 1 provides information regarding broad topics in virology, including immune responses, vaccinology, laboratory diagnosis, principles of antiviral therapy, and detailed considerations of important organ system manifestations and syndromes caused by viral infections. Section 2 provides overviews of specific etiologic agents and discusses their biology, epidemiology, pathogenesis of disease causation, clinical manifestations, laboratory diagnosis, and management. Clinical Virology provides the critical information scientists and health care professionals require about all aspects of this rapidly evolving field.

Textbook of Medical Virology presents a critical review of general principles in the field of medical virology. It discusses the description and molecular structures of virus. It addresses the morphology

and classifications of viruses. It also demonstrates the principal aspects of virus particle structure. Some of the topics covered in the book are the symmetrical arrangements of viruses; introduction to different families of animal viruses; biochemistry of virus particles; the immunological properties and biological activities of viral gene products; description of enzymatic activities of viruses; and haemagglutination, cell fusion, and haemolysis of viruses. The description and characteristics of viral antigens are covered. The identification and propagation of viruses in tissue and cell cultures are discussed. An in-depth analysis of the principles of virus replication is provided. A study of the morphogenesis of virions is also presented. A chapter is devoted to virus-induced changes of cell structures and functions. The book can provide useful information to virologists, microbiologists, students, and researchers.

Designed for students learning about viruses for the first time at the undergraduate or graduate level, Fundamentals of Molecular Virology is presented in a style which relates to today's students and pro-

fessors. This book is also a valuable, up-to-date source of information for graduate students, post-doctoral fellows and research scientists working with viruses. Chapters contributed by prominent virologists were edited to conform to a clear and accessible style. The text provides a thorough presentation of basic and contemporary concepts in virology for a student's first exposure to the field.

Principles of Virology, the leading virology textbook in use, is an extremely valuable and highly informative presentation of virology at the interface of modern cell biology and immunology. This text utilizes a uniquely rational approach by highlighting common principles and processes across all viruses. Using a set of representative viruses to illustrate the breadth of viral complexity, students are able to understand viral reproduction and pathogenesis and are equipped with the necessary tools for future encounters with new or understudied viruses. This fifth edition was updated to keep pace with the ever-changing field of virology. In addition to the beloved full-color illustrations, video interviews with leading scientists, movies, and links to

exciting blogposts on relevant topics, this edition includes study questions and active learning puzzles in each chapter, as well as short descriptions regarding the key messages of references of special interest. Volume I: Molecular Biology focuses on the molecular processes of viral reproduction, from entry through release. Volume II: Pathogenesis and Control addresses the interplay between viruses and their host organisms, on both the micro- and macroscale, including chapters on public health, the immune response, vaccines and other antiviral strategies, viral evolution, and a brand new chapter on the therapeutic uses of viruses. These two volumes can be used for separate courses or together in a single course. Each includes a unique appendix, glossary, and links to internet resources. Principles of Virology, Fifth Edition, is ideal for teaching the strategies by which all viruses reproduce, spread within a host, and are maintained within populations. This edition carefully reflects the results of extensive vetting and feedback received from course instructors and students, making this renowned textbook even

more appropriate for undergraduate and graduate courses in virology, microbiology, and infectious diseases.

To date textbooks on viruses infecting fish, crustaceans and molluscs, the three main aquatic animal farmed groups, have been on the whole “diseases-centric and individual viral diseases selected based on “epizoo-centric approaches with little to no coverage of the basic biology of the viruses, in contrast to textbooks on viruses infecting terrestrial - farmed, pet, and free-range (wild) - animals and humans. Despite considerable advances in animal virology in recent years coupled with an economically important global aquaculture industry, knowledge of viruses of animal aquaculture is still sparse and in some cases outdated although these viruses are closely related to well-known virus families. The last book in fish virology (Fish viruses and fish viral diseases 1988, Wolf, K.) was published in the 1980s. A lot of work has been done on fish viruses and many new aquatic animal viruses continue to be discovered. Aquaculture Virology provides the current state of knowledge of aquatic animal viruses within the current virus

classification and taxonomic context thereby allowing the reader to draw on the principles of general virology. This book is a systematic and concise resource useful to anyone involved with or looking to move into aquaculture and fisheries. Clinical veterinarians, aquaculture disease practitioners, biologists, farmers, and all those in industry, government or academia who are interested in aquatic animal virology will find this book extremely useful. Provides unique comprehensive information on animal viruses for aquaculture and fisheries. Presents high quality illustrations of viral structure, diagrams of viral disease processes, gross pathology and histopathology lesions, and summary tables to aid in understanding. Describes aquatic animal viruses of the three major aquatic animals, fish, crustaceans, and molluscs, within the current virus classification and taxonomic context thereby allowing the reader to draw on the principles of general virology

Virology is a clear and accessible introduction to this fast moving field, providing a comprehensive resource enabling students to understand the key concepts surrounding this exc-

iting subject. The authors have produced a text that stimulates and encourages the student through the extensive use of clear, colour-coded diagrams. Taking a modern approach to the subject, the relevance of virology to everyday life is clearly emphasised and discussion on emerging viruses, cancer, vaccines, anti-viral drugs gene vectors and pesticides is included. This title: Provides an introduction to the theories behind the origins of viruses and how they are evolving with discussion on emerging viruses Includes numerous diagrams with standard colour coding for different types of molecule such as DNA, messenger RNA, other virus RNA's proteins - all diagrams are carefully developed and clearly labelled to enhance student understanding Features self-contained descriptions of the complete replication cycles of a selection of viruses Introduces the relevance of virology to the modern world including the latest developments in the field - HIV, Foot and Mouth disease, Ebola, SARS and MMR Presents summary boxes, further reading and an associated website to include the latest developments Virology is an essential

textbook for all undergraduate students of biology, microbiology and biomedical sciences taking courses in virology. It is also an invaluable resource for MSc level students who have previously done little or no virology and are looking for an accessible introduction to the subject.

"Now in two conveniently sized volumes, Principles of Virology, 3rd Edition, is completely revised and updated to reflect important advances in the field. The textbook continues to fill the gap between introductory texts and advanced reviews of major virus families. These two volumes provide upper-level undergraduates, graduate students, and medical students with a state-of-the-art introduction to all aspects of virology. The third edition retains the essential organization and much-praised features of the first two editions. The two books focus on concepts and principles and together present a comprehensive treatment from molecular biology to pathogenesis and control of viral infections. Written in an engaging style and generously illustrated with over 600 full-color illustrations, these accessible volumes offer detailed exam-

ples to illustrate common principles, specific strategies to ensure replication and propagation of viruses, and a crucial overview of the current state of research in virology. The two volumes are divided into chapters that focus on specific topics rather than individual virus families to help students understand common themes across the spectrum of these families. Drawing on the extensive teaching experience of each of its distinguished authors, Principles of Virology illustrates why and how animal viruses are studied and demonstrates how the knowledge gained from such model viruses can be used to study viral systems that are still relatively unknown. A thorough introduction to principles of viral pathogenesis, a broad view of viral evolution, a discussion of how viruses were discovered, and an explanation of the history of the discipline of virology are also provided. A variety of text boxes highlight key experiments, background material, caveats, and much more."--Publisher's website.

The knowledge and practice of clinical virology continues to expand. This new fifth edition has thirty-six comprehensive

chapters, each of which has been extensively revised or rewritten, with the addition of new colour plates. This updated version takes into account knowledge accumulated in molecular biology with its applications for laboratory diagnosis, immunisation and antiviral chemotherapy. Each chapter highlights the clinical features and epidemiological patterns of infection. Similarly, in response to the global concern of the threat posed by new viruses, a new chapter on Emerging Infections is included. There is also new material on Hospital Acquired Infections, including some advice relating to SARS, that will be of benefit to those dealing with the day-to-day management of patients in hospital.

These volumes are completely revised and updated to reflect important advances in the field. The textbook continues to fill the gap between introductory texts and advanced reviews of major virus families. These two volumes provide upper-level undergraduates, graduate students, and medical students with a state-of-the-art introduction to all aspects of virology. The third edition retains the essential organization and

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Fenner and White's *Medical Virology*, Fifth Edition provides an integrated view of related sciences, from cell biology, to medical epidemiology and human social behavior. The perspective represented by this book, that of medical virology as an infectious disease science, is meant to provide a starting point, an anchor, for those who must relate the subject to clinical practice, public health practice, scholarly research, and other endeavors. The book presents detailed exposition on the properties of viruses, how viruses replicate, and how viruses cause disease. These chapters are then followed by an overview of

the principles of diagnosis, epidemiology, and how virus infections can be controlled. The first section concludes with a discussion on emergence and attempts to predict the next major public health challenges. These form a guide for delving into the specific diseases of interest to the reader as described in Part II. This lucid and concise, yet comprehensive, text is admirably suited to the needs of not only advanced students of science and medicine, but also postgraduate students, teachers, and research workers in all areas of virology. Features updated and expanded coverage of pathogenesis and immunity Contains the latest laboratory diagnostic methods Provides insights into clinical features of human viral disease, vaccines, chemotherapy, epidemiology, and control Cellular and Molecular Immunology takes a comprehensive yet straightforward approach to the latest developments in this active and fast-changing field. Drs. Abul K. Abbas, Andrew H. Lichtman, and Shiv Pillai present sweeping updates in this new edition to cover antigen receptors and signal transduction in immune cells,

mucosal and skin immunity, cytokines, leukocyte-endothelial interaction, and more. This reference is the up-to-date and readable textbook you need to master the complex subject of immunology. Recognize the clinical relevance of the immunology through discussions of the implications of immunologic science for the management of human disease. Grasp the details of experimental observations that form the basis for the science of immunology at the molecular, cellular, and whole-organism levels and draw the appropriate conclusions. Stay abreast of the latest advances in immunology and molecular biology through extensive updates that cover cytokines, innate immunity, leukocyte-endothelial interactions, signaling, costimulation, and more. Visualize immunologic processes more effectively through a completely revised art program with redrawn figures, a brighter color palette, and more 3-dimensional art. Find information more quickly and easily through a reorganized chapter structure and a more logical flow of material.

Comparative Virology provides an integrated comparison of viruses, based

on their chemical and morphological characteristics. These descriptions will not only give the reader a background but also a detailed analysis of the various groups. In some instances the groups are still host related, as in the case of bacteriophages and polyhedral insect viruses. In others, for instance in pox viruses, the group comprises viruses of vertebrates and invertebrates. The hosts of the bacilliform Rhabdovirales range from man and other warm-blooded vertebrates through invertebrate animals to plants. A special chapter is devoted to viruses devoid of protein—a group that is of great interest and that has only recently been recognized. Since there is historical and practical interest in *écologie* groupings, such as arboviruses and oncogenic viruses, chapters on such groups have also been included. The book opens with a discussion on the classification of viruses. Chapters dealing with DNA viruses and RNA viruses follow, and the ecologically and disease-oriented groups complete the volume. It is hoped that "Comparative Virology" will help bring unity to the science of virology through the comparative approach that is

not dependent on virus-host interactions. The combined efforts of eminent contributors to discuss and evaluate new information will hopefully benefit all who are interested in virology

Encyclopedia of Virology, Fourth Edition, builds on the solid foundation laid by the previous editions, expanding its reach with new and timely topics. In five volumes, the work provides comprehensive coverage of the whole virosphere, making this a unique resource. Content explores viruses present in the environment and the pathogenic viruses of humans, animals, plants and microorganisms. Key areas and concepts concerning virus classification, structure, epidemiology, pathogenesis, diagnosis, treatment and prevention are discussed, guiding the reader through chapters that are presented at an accessible level, and include further readings for those needing more specific information. More than ever now, with the Covid19 pandemic, we are seeing the huge impact viruses have on our life and society. This encyclopedia is a must-have resource for scientists and practitioners, and a great source of information for the wider public. Offers

students and researchers a one-stop shop for information on virology not easily available elsewhere. Fills a critical gap of information in a field that has seen significant progress in recent years. Authored and edited by recognized experts in the field, with a range of different expertise, thus ensuring a high-quality standard.

Molecular diagnostic procedures have been described in a number of recent books and articles. However, these publications have not focused on virus detection, nor have they provided practical protocols for the newer molecular methods. Written by the inventors or principal developers of these technologies, *Molecular Methods for Virus Detection* provides both reviews of individual methods and instructions for detecting virus nucleic acid sequences in clinical specimens. Each procedure includes quality assurance protocols that are often ignored by other methodology books. *Molecular Methods for Virus Detection* provides clinically relevant procedures for many of the newer diagnostic methodologies. Provides state-of-the-art PCR methods for amplification, quantitation, in situ hybridization,

and multiplex reactions. Goes beyond PCR with protocols for 3SR, NASBA, LCR, SDA, and LAT. Covers important virus detection methods such as in situ hybridization; Southern, dot, and slot blots; branched chain signal amplification; and chemiluminescence. Includes quality control information crucial in research and clinical laboratories. Most chapters are written by the inventors and principal developers of the methodologies. Includes color plates, 77 figures, and 18 tables.

The fourth edition of the hugely successful *Principles of Molecular Virology* takes on a molecular approach, presenting the principles of virology in a clear and concise manner. This work explores and explains the fundamental aspects of virology, including structure of virus particles and genome, replication, gene expression, infection, pathogenesis and subviral agents. The self-assessment questions, glossary and abbreviations section provide excellent revision aids and serve as handy references to students, tutors and researchers alike. **NEW TO FOURTH EDITION:** * New material on virus structure and virus evolution *

Updated pathogenesis section covering Ebola, SARS and HIV * New section on Bioterrorism * Fully updated references * New material on virus structure, virus evolution, zoonoses, bushmeat, SARS and bioterrorism

Harnessing the Power of Viruses explores the application of scientific knowledge about viruses and their lives to solve practical challenges and further advance molecular sciences, medicine and agriculture. The book contains virus-based tools and approaches in the fields of: i) DNA manipulations in vitro and in vivo; ii) Protein expression and characterization; and iii) Virus-Host interactions as a platform for therapy and bio-control are discussed. It steers away from traditional views of viruses and technology, focusing instead on viral molecules and molecular processes that enable science to better understand life and offer means for addressing complex biological phenomena that positively influence everyday life. The book is written at an intermediate level and is accessible to novices who are willing to acquire a basic level of understanding of key principles in molecular biology, but is also ideal for advanced read-

ers interested in expanding their biological knowledge to include practical applications of molecular tools derived from viruses. Explores virus-based tools and approaches in DNA manipulation, protein expression and characterization and virus-host interactions Provides a dedicated focus on viral molecules and molecular processes that enable science to better understand life and address complex biological phenomena Includes an overview of modern technologies in biology that were developed using viral components/elements and knowledge about viral processes

This is the second edition of a well received textbook which was originally published in 1993. The new edition includes major revisions in certain chapters, and integrates the interface between science and medicine more than it did previously. There is also more discussion on clinically important conditions. The bright, bold format, from the first edition has been kept, but has been given a more sophisticated and up-to-date look. Virology, perhaps more than any other discipline, plays an extremely important role in the advances of biomed-

ical research. New discoveries are continually being made, and their subsequent application to the relief of suffering proceed at an ever-increasing pace. Virology is important not only in the study of infections and their treatment and prevention, but also in the unravelling of the most fundamental aspects of biology. This is because viruses have an intimate relationship with the basic machinery of their host cells. Thus, research on how viruses reproduce themselves and spread has given us many insights into the way in which the cells of our bodies function, leading in turn to a better understanding of the whole organism and of how infective diseases may be prevented or cured. The speed of advance in this area has increased the difficulties encountered by students and teachers in absorbing and imparting important information as effectively as possible. It is important that the students are provided with enough information not just to pass examinations but also to provide a foundation of knowledge adequate for subsequent professional practice. It is equally important that this information is presented in an attractive assimi-

lated manner. In this book Leslie Collier and John Oxford present a delightfully written account of basic and clinical virology that meets both of these requirements. Richly illustrated with around 130 line drawings and photographs, Human virology provides a complete review of this rapidly expanding field of biology for medical, dental, and microbiology students. Leslie Collier is a freelance medical editor and writer and was formerly Professor of Virology at the Royal London Hospital. John Oxford is the current holder of this position. Reviews of the first edition 'Collier and Oxford are to be congratulated on producing a textbook for undergraduates which is refreshing in its ability to make the subject interesting and clinically relevant in a format that is both easy and enjoyable to read.' British Journal of Hospital Medicine 'excellent student text which combines scholarship with easy to remember diagrams and memory aides.' Aslib Book Guide 'The book is very well illustrated and the only adjective for the many electron-micrographs is "superb".' J Med Microbiol 'It is a pleasure to recommend Human Virology as a text-

book for basic clinical virology.' International Antiviral News

Principles of Virology Fourth Edition Principles of Virology is the leading virology textbook because it does more than collect and present facts about individual viruses. Instead, it facilitates an understanding of basic virology by examining the shared processes and capabilities of viruses. Using a set of representative viruses to present the complexity and diversity of a myriad of viruses, this rational approach enables students to understand how reproduction is accomplished by known viruses and provides the tools for future encounters with new or understudied viruses. This fully updated edition represents the rapidly changing field of virology. A major new feature is the inclusion of 26 video interviews with leading scientists who have made significant contributions to the field of virology. Applicable courses: undergraduate courses in virology and microbiology as well as graduate courses in virology and infectious diseases.

Completely revised and updated to reflect important advances in the field, Principles of Virology, Se-

cond Edition continues to fill the gap between simple introductory texts and very advanced reviews of major virus families, introducing upper-level undergraduates, graduate students, and medical students to all aspects of virology. The second edition retains all of the defining and much-praised features of the first edition, focusing on concepts and principles and presenting a comprehensive treatment from molecular biology to pathogenesis and infection control. Written in an engagingly readable style and generously illustrated with over 400 full-color illustrations, this approachable volume offers detailed examples that illustrate common principles, specific strategies adopted by different viruses to ensure their reproduction, and the current state of virology research. The book is divided into chapters that focus on specific topics rather than individual viruses, and allows the student to visualize common themes that cut across virus families, emphasizing the shared features of different viruses. Drawing on the extensive teaching experience of each of its distinguished authors, Principles of Virology illustrates why and how animal virus-

es are studied and demonstrates, using well-studied systems, how the knowledge gained from such model viruses can be used to study viral systems about which our knowledge is still quite limited. A thorough introduction to principles of viral pathogenesis, a broad view of viral evolution, a discussion of how viruses were discovered, and how the discipline of virology came to be are also provided. A variety of special boxes highlight key experiments, background material, caveats, and much more. The text focuses on concepts and principles and covers not only aspects of molecular biology, but also pathogenesis, evolution, emergence, and control, and will also be a valuable resource for practicing physicians and scientists. New in the Second Edition Completely revised pathogenesis chapters Pathogenicity Snapshots: an appendix highlighting teaching points for major viral diseases Expanded appendix on viral life cycles New chapter on viral genomes and coding strategies Detailed glossary Expanded references after each chapter new textboxes The second edition of Virology is an accessible introduction designed to en-

able students to understand the principles of virus structure, replication and genetics. The aim of this book is to help the reader appreciate the relevance of virology in the modern world, including the fields of vaccines, anti-viral drugs and cancer. There is also a chapter on prions. The second edition has been extensively revised and updated to reflect the many developments in virology and offers deeper insights into the subject. Newly-discovered viruses are discussed and there is an additional chapter on the influenza virus.

This book provides the entire basic information required for the beginner of virology. All types of viruses including subviral agents, viroids and prions are dealt in an orderly manner with profuse illustrations. A comprehensive and update account of principles of virology, taxonomy, replication strategies, diagnostic techniques and management of viral diseases is the major attraction of this book. The information provided will be useful to undergraduate and post-graduate students of all disciplines of biology including agriculture, veterinary, pharmacy and medicine. It also fulfils the long-felt

needs of researchers and teachers of all biological sciences. An important book must for all college and university libraries.

Essential Human Virology is written for the undergraduate level with case studies integrated into each chapter. The structure and classification of viruses will be covered, as well as virus transmission and virus replication strategies based upon type of viral nucleic acid. Several chapters will focus on notable and recognizable viruses and the diseases caused by them, including influenza, HIV, hepatitis viruses, poliovirus, herpesviruses, and emerging and dangerous viruses. Additionally, how viruses cause disease, or pathogenesis, will be highlighted during the discussion of each virus family, and a chapter on the immune response to viruses will be included. Further, research laboratory assays and viral diagnosis assays will be discussed, as will vaccines, anti-viral drugs, gene therapy, and the beneficial uses of viruses. By focusing on general virology principles, current and future technologies, familiar human viruses, and the effects of these viruses on humans, this textbook will provide a solid foundation

in virology while keeping the interest of undergraduate students. Focuses on the human diseases and cellular pathology that viruses cause Highlights current and cutting-edge technology and associated issues Presents real case studies and current news highlights in each chapter Features dynamic illustrations, chapter assessment questions, key terms, and summary of concepts, as well as an instructor website with lecture slides, test bank, and recommended activities

Designed for graduate students and researchers in all biological and biomedical sciences, this volume brings together the basic science chapters from the two-volume Fourth Edition of Fields Virology. These 37 chapters comprise a comprehensive text and reference on the concepts and research techniques of contemporary virology and the biochemistry, molecular biology, and replication of all viruses. The first part of the book covers basic concepts of general virology and the second part focuses on specific virus families.

Viruses interact with host cells in ways that uniquely reveal a great deal about general aspects of molecular and cellular structure

and function. *Molecular and Cellular Biology of Viruses* leads students on an exploration of viruses by supporting engaging and interactive learning. All the major classes of viruses are covered, with separate chapters for their replication and expression strategies, and chapters for mechanisms such as attachment that are independent of the virus genome type. Specific cases drawn from primary literature foster student engagement. End-of-chapter questions focus on analysis and interpretation with answers being given at the back of the book. Examples come from the most-studied and medically important viruses such as HIV, influenza, and poliovirus. Plant viruses and bacteriophages are also included. There are chapters on the overall effect of viral infection on the host cell. Coverage of the immune system is focused on the interplay between host defenses and viruses, with a separate chapter on medical applications such as anti-viral drugs and vaccine development. The final chapter is on virus diversity and evolution, incorporating contemporary

insights from metagenomic research. Key selling feature: Readable but rigorous coverage of the molecular and cellular biology of viruses. Molecular mechanisms of all major groups, including plant viruses and bacteriophages, illustrated by example. Host-pathogen interactions at the cellular and molecular level emphasized throughout. Medical implications and consequences included. Quality illustrations available to instructors. Extensive questions and answers for each chapter.

Principles of Virology is the leading virology textbook because it does more than collect and present facts about individual viruses. Instead, it facilitates an understanding of basic virology by examining the shared processes and capabilities of viruses. Using a set of representative viruses to present the complexity and diversity of a myriad of viruses, this rational approach enables students to understand how reproduction is accomplished by known viruses and provides the tools for future encounters with new or understudied viruses. This

fully updated edition represents the rapidly changing field of virology. A major new feature is the inclusion of 26 video interviews with leading scientists who have made significant contributions to the field of virology. Applicable courses: undergraduate courses in virology and microbiology as well as graduate courses in virology and infectious diseases.

This is the third edition of this publication which contains the latest information on vaccines and vaccination procedures for all the vaccine preventable infectious diseases that may occur in the UK or in travellers going outside of the UK, particularly those immunisations that comprise the routine immunisation programme for all children from birth to adolescence. It is divided into two sections: the first section covers principles, practices and procedures, including issues of consent, contraindications, storage, distribution and disposal of vaccines, surveillance and monitoring, and the Vaccine Damage Payment Scheme; the second section covers the range of different diseases and vaccines.