Bacterial Superantigens Structure Function And Therapeutic Potential Molecular Biology Intelligence Unit

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Dynamics and the Problem of Recognition in Biological Macromolecules Oleg Jardetzky 2012-12-06 From within complex structures of organisms and cells down to the molecular level, biological processes all involve movement. Muscular fibers slide on each other to activate the muscle, as polymerases do along nucleic acids for replicating and transcribing the genetic material. Cells move and organize themselves into organs by recognizing each other through macromolecular surface-specific interactions. These recognition processes involve the mu tual adaptation of structures that rely on their flexibility. All sorts of conformational changes occur in proteins involved in through-membrane signal transmission, showing another aspect of the flexibility of these macromolecules. The movement and flexibility are inscribed in the polymeric nature of essential biological macromolecules such as proteins and nucleic acids. For instance, the well-defined structures formed by the long protein chain are held together by weak noncovalent interac tions that design a complex potential well in which the protein floats, permanently fluctuating between several micro- or macroconformations in a wide range of frequencies and ampli tudes. The inherent mobility of biomolecular edifices may be crucial to the adaptation of their structures to particular functions. Progress in methods for investigating macromolecular structures and dynamics make this hypothesis not only attractive but more and more testable.
Clinical Immunology,Principles and Practice (Expert Consult - Online and Print),4 Robert R. Rich 2013-01 Written and edited by international leaders in the field, this book has, through two best-selling editions, been the place to turn for authoritative answers to your toughest challenges in clinical immunology. Now in full color and one single volume, the 3rd Edition brings you the very latest immunology knowledge - so you can offer your patients the best possible care. The user-friendly book and the fully searchable companion web site give you two ways to find the answers you need quickly...and regular online updates keep you absolutely current. Leading international experts equip you with peerless advice and global best practices to enhance your diagnosis and management of a full range of immunologic problems. A highly clinical focus and an extremely practical organization expedite access to the answers you need in your daily practice. Cutting-edge coverage of the human genome project, immune-modifier drugs, and many other vital updates keeps you at the forefront of your field. A new organization places scientific and clinical material side by side, to simplify your research and highlight the clinical relevance of the topics covered. A multimedia format allows you to find information conveniently, both inside the exceptionally user-friendly book and at the fully searchable companion web site. Regular updates online ensure that you'll always have the latest knowledge at your fingertips. Includes many new and improved illustrations and four color design. Your purchase entitles you to access the web site until the next edition is published, or until the current edition is no longer offered for sale by Elsevier, whichever occurs first. If the next edition is published less than one year after your purchase, you will be entitled to online access for one year from your date of purchase. Elsevier reserves the right to offer a suitable replacement product (such as a downloadable or CD-ROM-based electronic version) should access to the web site be discontinued.
Staphylococcus Aureus Pathogenicity Islands Paul Mano Orwin 2001
Structural and Functional Aspects of T Cell Activation by Superantigens 1999
Streptococcal Superantigens Anshu Babbar 2015-07-24 This book provides ample knowledge and better understanding of Streptococcus pyogenes and their superantigens. Many illustrations make this a highly informative book. This book elucidates briefly Streptococcus pyogenes as a strict human pathogen possessing an array of virulence factors. These help in evading host immune responses such as by the activation of non-specific T-cell subpopulations by producing superantigens. This book mainly focuses on streptococcal superantigens and explains how they are different from conventional antigens. Moreover, it elaborates those diseases in which superantigens are actively involved. Useful aspects of superantigens and different therapeutic interventions to eradicate superantigens induced diseased are also discussed.
Scientific Report Scripps Research Institute 1996
Doody's Rating Service Daniel J. Doody 1996
Deutsche Nationalbibliographie und Bibliographie der im Ausland erschienenen deutschsprachigen Veröffentlichungen 1995
Emerging Infections 1998-02-09 Emerging Infections is the first volume of the new Biomedical Research Reports Series, which will provide annual updates on hot topics of interest to a broad spectrum of the biomedical research community. This book provides state-of-the-art reviews of new and reemerging bacterial, viral, and parasitic infections, their life cycles, host defense evasion strategies, and clinical features. It includes the history of infectious disease outbreaks, population and evolutionary biology of human pathogens, and current epidemiological models that describe how ecological and demographic changes produce new epidemics. Provides reviews on hot topics of interest to the biomedical research community Editor and contributors are renowned international experts Covers the major established pathogens as well as the new and sensational--such as mad cow disease, hantavirus pulmonary syndrome, pathogenic E. Coli, and flesh-eating bacteria
Books in Print 1995
Reemergence of Established Pathogens in the 21st Century I.W. Fong 2006-04-11 In the closing decade of the last century, we saw warnings that infectious diseases will require much more attention from patients and physicians in the 21 st century. Recently d- covered diseases such as AIDS pose a major threat to the population at large, and to that threat has been added the re-emergence of established pathogens, microbes that were re- ily treatable in the past. Since infectious diseases already play a major role in the burden of illness and mortality, health care providers and planners are worried. A large proportion of the problem is man-made, arising mainly from the unnecessary overuse of antimicrobials in hospital and community settings and from the agricultural misuse of the agents in animal feed. A

consequence has been a dramatic increase in resi- ant strains of bacteria that were considered conquerable several decades ago. Community infections caused by multi-resistant pneumococci serve as an example. These organisms were readily treated with penicillin, but now the spread of penicillin-resistant Streptococcus pneumoniae from continent to continent is becoming a worldwide problem. This is a major concern because pneumococcal infections are common in the community, being the le- ing cause of pneumonia, sinusitis, and meningitis. Resistant bacteria in hospitals are also becoming more prevalent. We have become accustomed to hearing about methicill- resistant Staphylococcus aureus (MRSA) and vancomycin-resistant enterococci (VRE), but now we have to be concerned about multidrug-resistant coliform bacteria and pseudomonads.

Protein Structure — Function Relationship D.L. Smith 2012-12-06 Although many pursue understanding of the relationship between protein structure and function for the thrill of pure science, the pay-off in a much broader sense is the ability to manipulate the Earth's chemistry and biology to improve the quality of life for mankind. Immediately goals of this area of research include identification of the life-supporting functions of proteins, and the fundamental forces that facilitate these functions. Upon reaching these goals, we shall have the understanding to direct and the tools required to implement changes that will dramatically improve the quality of life. For example, under standing the chemical mechanism of diseases will facilitate development of new therapeutic drugs. Likewise, understanding of chemical mechanisms of plant growth will be used with biotechnology to improve food production under adverse climatic conditions. The challenge to understand details of protein structure/function relationships is enormous and requires an international effort for success. To direct the chemistry and biology of our environment in a positive sense will require efforts from bright, imaginative scientists located throughout the world. Although the emergence of FAX, e-mail, and the World Wide Web has revolutionized international communication, there remains a need for scientists located in distant parts of the world to occasionally meet face to face.

HLA and MHC Michael J. Browning 1996 This is a review of the major histocompatibility complex (MHC), and the role it plays in the immune response and in disease. The emphasis throughout is on the human MHC, but relevant animal studies are inclded to give a comprehensive review of the subject.

Bacterial Superantigens Jacques Thibodeau 1995 Although the field of superantigens (SAgs) has boomed in recent years, the function of these proteins in bacterial infection remains elusive. This volume begins with a brief introduction, followed by 15 chapters. Among the topics are structural studies of streptococcal pyrogenic exotoxin superantigens; Yersinia infection--the virulence determinants and SAgs they produce; structural features of T cell receptor recognition of SAgs; the pathophysiology of bacterial SAgs in vivo; and antibody targeted SAgs in experimental tumor therapy. Annotation copyright by Book News, Inc., Portland, OR

Immunologie Charles Janeway 1997 Die Immunologie hat sich in den letzten 25 Jahren geradezu explosionsartig entwickelt. Neben einer FA1/4lle an Details sind dabei auch grundlegende Prinzipien aufgedeckt worden, die ein A1/4bergreifendes VerstAndnis der komplexen Immunfunktionen und Abwehrmechanismen ermAglichen. Die vollstAndig A1/4berarbietete zweite Auflage dieses enorm erfolgreichen Lehrbuches vermittelt nicht nur den aktuellen Stand des Wissens, sondern liefert dem Leser auch den Rahmen, um neue Forschungsergebnisse einordnen und ihre Bedeutung beurteilen zu kAnnen. Die didaktisch brillante Darstellung wird unterstA1/4tzt durch Hunderte von vierfarbigen Graphiken, die immunologische Konzepte und Prozesse anschaulich und leicht nachvollziehbar machen. Der Schwerpunkt des Buches liegt auf der Biologie des Immunsystems, also auf den genetischen, molekularen und zellulAren Mechanismen sowie den Entwicklungs- und Lernprozessen, die seiner Funktion zugrunde liegen. Aber auch Themen wie AIDS, Allergien, Autoimmunerkrankungen und Krebs werden ausfA1/4hrlich behandelt, und es gelingt den Autoren in beeindruckender Weise, physiologische und pathologische Aspekte zu integrieren.

Römpp kompakt Basislexikon Chemie Jürgen Falbe 1999

Streptococcal Infections Dennis L. Stevens 2000 Streptococcal Infections: Clinical Aspects, Microbiology, and Molecular Pathogenesis offers an in-depth examination of the spectrum of hemolytic streptococcal infections and their complications. Additionally, the volume incorporates and discusses aspects of pneumococcal, entrococcal, and oral streptococcal disease. The recent resurgence of rheumatic fever, concomitant outbreaks of severe systemic group A streptococcal infections (often accompanied by toxic shock), an increasing incidence of multiple antibiotic resistance among streptococcal species, and an intensified effort to develop effective streptococcal vaccines have brought renewed attention to the continuing role of streptococci for causing significant medical and public health problems in both industrialized and developing countries. Addressing clinical and epidemiological aspects, and microbiological and other approaches of the research scientist, this volume is the first to comprehensively address these clinically important organisms in many years. The contributors are internationally recognized for their expertise, making this book invaluable for infectious disease physicians, (internists, pediatricians, and family physicians, microbiologists, epidemiologists, and basic scientists with an interest in streptococcal infections and their complications.

Cumulated Index Medicus 2000

International Books in Print 1997

Bacterial Superantigens Jacques Thibodeau 1995

Biological Weapons Defense Luther E. Lindler 2007-10-27 In 2003, the President’s budget for bioterrorism defense totalled more than $5 billion. Today, the nation’s top academic scientists are scrambling to begin work to understand Bacillus anthracis and develop new vaccines and drugs. However, just five years ago, only the US Department of Defense (DOD) seemed concerned about these “exotic” agents. In 1997, the DOD spent approximately $137 million on biodefense to protect the deployed force, while academe, industry, local governments, and most of our federal leadership was oblivious to, and in some cases doubtful of, the seriousness of the threat. The National Institutes of Health (NIH) received the largest budget increase in the organization’s history. Fortunately, during this time of national urgency, a sound base exists on which to build our defenses against this new threat. A relatively small cadre of dedicated scientists within the US Army Medical Research and Materiel Command (USAMRMC) laid this foundation over the past 20 years.

Superantigen Protocols Teresa Krakauer 2008-02-05 Leading researchers in the biological, chemical, and physical investigation of superantigens describe in step-by-step detail their best experimental techniques to assess the physical characteristics and biological effects of superantigens. Their protocols range from those for investigating the interactions of superantigens with cellular receptors to those for the analysis of their immunological and biological effects, including methods for using BIOcore to determine binding kinetics and establishing various lymphocyte cell culture systems. There are also accounts of such methods as the RNase protection assay, cytokine ELISA, FACS analysis, and cytokine production at the single cell level..

Medical and Health Care Books and Serials in Print 1997

The Staphylococci in Human Disease Kent B. Crossley 1997 This is the first new book on all Staphylococcal infections in many years. It is particularly timely, considering the growing problem of antibiotic resistant staph infections. It covers all Staph infections including hospital infections, toxic shock syndrome, infections in prosthetic devices, immunocompromised patients, and more.

Staphylococcus aureus Infection and Disease Allen Honeyman 2006-04-11 Staphylococcus aureus is now acknowledged as being the most important bacterial pathogen of humans. It usually produces localized disease but can be rapidly invasive, spreading through the tissues, invading bone, and seeding the bloodstream to produce a fulminant picture of septic shock, disseminated intravascular coagulation, and rapid death. Moreover, most strains of staph infections are becoming resistant to most antibiotics, thus posing a significant problem for hospitals and health care facilities. This book, a volume in the Infectious Agents and Pathogenesis series, presents chapters by the major researchers in the field.

Bacterial Infection: Close Encounters at the Host Pathogen Interface Peter K. Vogt 2012-12-06 When it comes to bacterial disease, we are living in a state of false security. Antibiotics have indeed brought unprecedented health benefits, protection from and cure of bacterial diseases during the past 50 years. But there are ominous signs that the fortress and the defenses built on antibiotics are crumbling. They are crum bling because we wittingly or unwittingly created selective con ditions for the emergence of superior pathogens that can no longer be controlled by antibiotics. There are numerous warnings. After a long period of eclipse tuberculosis has now emerged as a serious threat unchecked by antibiotic treatment. Recent years have seen reports of cholera epidemics, of anthrax infections, of serious problems with Salmonella and even with E. coli, just to name a few. Mankind is in a race with microbial invaders. The challenge is to anticipate and respond to developments that affect the precarious balance between man and microbe. This will re quire new knowledge and it will take time for an effective appli cation of that knowledge.

Toxicology Hans Marquardt 1999-10-05 Toxicology is a comprehensive text for researchers and graduate students in toxicology and public health. It addresses every aspect of the field, starting with the fundamentals and incorporating such areas as organ toxicology, applications, and environmental toxicology. In addition to covering the traditional subject matter of toxicology, special emphasis has been placed on recent areas of interest, such as risk assessment, apoptosis, and methodical developments. Key Features * Comprehensive text, covering all aspects of the field of toxicology * Analyzes the importance of toxicokinetics and metabolism as well as cellular targets for the mechanisms of toxic effects * Identifies the various classes of chemical compounds responsible for the toxic effects * Describes the approaches and methods used by various disciplines which investigate toxic effects and their prevention * Adapted from a very successful German text, this edition is completely revised and expanded * The text is well illustrated with diagrams, charts, and tables

RÖMPP Lexikon Biotechnologie und Gentechnik, 2. Auflage, 1999 Monika Deckwer 2014-07-16 Diese Ausgabe der RÖMPP Chemie-Enzyklopädie von 1999 enthält über 5000 Fachbegriffe rund um Biotechnologie und Gentechnik mit 21.000 Querverweisen, Literaturhinweisen sowie Abbildungen, Formeln und Tabellen. Anwendungsbezogen werden die Stichwörter so leicht verständlich erklärt, dass der RÖMPP auch für Nicht-Chemiker praktisch im Arbeitsalltag einsetzbar ist. Der RÖMPP für Biotechnologie und Gentechnik behandelt in dieser 2. Auflage 31 Fachgebiete von Analytik bis Zellkultur und bietet einen umfassenden Überblick über die folgenden Themen: Grundlagen: Biochemie, Genetik, Fortpflanzungsbiologie, Molekularbiologie, Virologie, Mikrobiologie, Bioanalytik, Zellbiologie. Anwendungen: Gentechnik, Landwirtschaft, Lebensmittel, Pharmazie, Medizin, Immunologie, Verfahrenstechnik, Fermenter, Bioreaktoren, Zellkultur, Umweltbiotechnologie, Biosensoren. Extras: Sicherheit/Arbeitsschutz, Ethik, Gesetzgebung, öffentliche Diskussion, Biotechnologie-Firmen, Fremdwörterlexikon Deutsch-Englisch.

RÖMPP Lexikon Chemie, 10. Auflage, 1996-1999 2014-06-11 Die bewährte 10. Auflage der RÖMPP Enzyklopädie von 1999 enthält 44.000 Fachbegriffe, 5.000 Seiten in 6 Bänden, 120.000 Querverweise, 65.000 Literaturhinweise sowie 8.000 Abbildungen, Formeln und Tabellen rund um die Chemie und angrenzende Naturwissenschaften. Anwendungsbezogen und praxisnah werden die Stichwörter leicht verständlich erklärt, sodass auch Nicht-Chemiker den RÖMPP praktisch in Ihrem Arbeitsalltag einsetzen können. Folgende Fachgebiete sind in den 6 Bänden enthalten: Abfall, Analytik, Angewandte Chemie, Anorganik, Arbeitssicherheit, Biochemie, Biographien, Biologie, Biotechnologie, Elektrochemie, Farbstoffe, Fette/Tenside/Waschmittel, Firmenportraits, Gesetzgebung, Kohle- und Petrochemie, Labortechnik, Lebensmittelchemie, Makromolekulare Chemie, Medizin, Metallurgie, Mineralogie, Naturstoffe, Nomenklatur, Ökologie, Organik, Organisationen, Pflanzenschutz, Pharmazie, Physik, Physikalische Chemie, Radiochemie, Technische Chemie, Toxikologie und Umweltschutz, Warenzeichen.

Superantigens Leung 1997-02-20 This up-to-date sourcebook covers viral and bacterial superantigens (SAgs) from molecular structure and immunological processes to pathology and treatment of superantigen-mediated human diseases. Discusses diseases beyond Toxic Shock Syndrome, such as autoimmune and inflammatory skin conditions, as well as the role of superantigens in other infectious diseases. Illustrated with molecular structures of superantigens.

Treatments from Toxins Keith Alan Foster 2006-11-02 As little as two decades ago, deliberately injecting botulinum toxin into patients would have seemed foolhardy at best and criminal at worst. The increased clinical use of botulinum toxins has expanded the body of knowledge available on the structure and function of these proteins. This knowledge can be applied to topics as varied as therapies based on the endopeptidase activity of the toxins, vaccine development, protection against botulism, and vectors for neuronal drug delivery. Based on recent scientific and clinical information from top international authorities, Treatments from Toxins: The Therapeutic Potential of Clostridial Neurotoxins reviews the status of current research and development and identifies significant developments. Drawing on their vast experience in this field, the editors present the basic background of the bacteriology and genetics of the neurotoxigenic clostridia, a history of the discovery of the neurotoxins, and an overview of the tetanus and botulism diseases. The chapters detailing common medical applications of the toxins cover side effects and novel uses, including neuronal drug delivery strategies, and provide a fresh look at what can still be achieved. They also explore the toxins as potential threat agents and the advent of the therapeutic use of botulinum toxins. Highlighting the pitfalls, successes, and challenges that exist when engineering complex proteins, the book brings together the clinical and theoretical worlds. It presents a broad overview of the current status of botulinum research and its clinical applications.

Antibiotic and Chemotherapy E-Book Roger G. Finch 2010-11-30 Well-respected and widely regarded as the most comprehensive text in the field, Antibiotic and Chemotherapy, 9th Edition by Drs. Finch, Greenwood, Whitley, and Norrby, provides globally relevant coverage of all types of antimicrobial agents used in human medicine, including all antiviral, antiprotozoan and anthelminthic agents. Comprehensively updated to include new FDA and EMEA regulations, this edition keeps you current with brand-new information about antiretroviral agents and HIV, superficial and mucocutaneous myscoses and systemic infections, management of the immunocompromised patient, treatment of antimicrobial resistance, plus coverage of new anti-sepsis agents and host/microbe modulators. Reference is easy thanks to a unique 3-part structure covering general aspects of treatment; reviews of every agent; and details of treatments of particular infections. Offer the best possible care and information to your patients about the increasing problem of multi-drug resistance and the wide range of new antiviral therapies now available for the treatment of HIV and other viral infections. Stay current with 21 new chapters including the latest information on superficial and mucocutaneous mycoses, systemic infections, anti-retroviral agents, and HIV. Get fresh perspectives and insights thanks to 21 newly-authored and extensively re-written chapters. Easily access information thanks to a unique 3-part structure covering

general aspects of treatment; reviews of every agent; and details of treatments of particular infections. Apply the latest treatments for anti-microbial organisms such as MRSA, and multi-drug resistant forms of TB, malaria and gonorrhea. Keep up on the latest FDA and EMEA regulations.

Biofilm formation by staphylococci and streptococci: Structural, functional and regulatory aspects and implications for pathogenesis Joan A. Geoghegan 2015-06-25 Members of the genus Staphylococcus and Streptococcus are the causative agnets of many human and animal diseases. Over the past decade the complete sequencing of many staphylococcal and streptococcal genomes has promoted a significant advance in our knowledge of these important pathogens. The pathogenicity of these bacteria is due to the expression of a large variety of virulence factors. Such determinants, which are cell wall-associated and secreted proteins, include adhesins that confer to the pathogen the ability to attach to extracellular matrix/plasma and host cell surfaces, proteins that contribute to host cell invasion and intracellular survival and soluble factors that decrease phagocytosis and modulate the immune response. Furthermore, these Gram-positive cocci in many natural environments (heart valve, lung, oral cavity, throat) and infections on implanted devices live in matrix-encased groups known as biofilms. Biofilms are specialized bacterial communities with high order organization analogous to that of a tissue in multicellular organism that adhere to abiotic or biological substrata and produce an exopolymeric matrix composed of polysaccarides, proteins, DNA or combination thereof. Bacteria within a biofilm persist in adverse conditions, show resistance to killing by antibiotics and to host immune defences and are difficult to eradicate and treat clinically. Therefore, understanding the mechanisms of biofilm development will allow us to effectively combat staphylococcal/streptococcal biofilm-based infections. This Research Topic will focus on the molecular components involved in biofilm formation by staphylococci and streptococci, the role they play in the development, maturation and dispersal of biofilm and on the regulatory aspects of such complex processes. The implication for the pathogenesis of infective diseases and potential therapeutic strategies against biofilm-based infections will be also discussed. The articles will highlight both the recent advances and future challenges inherent in this rapidly evolving area.

The Comprehensive Sourcebook of Bacterial Protein Toxins Joseph E. Alouf 2005-12-20 This book describes the major achievements and discoveries relevant to bacterial protein toxins since the turn of the new century illustrated by the discovery of more than fifty novel toxins (many of them identified through genome screening). The establishment of the three-dimensional crystal structure of more than 20 toxins during the same period offers deeper knowledge of structure-activity relationships and provides a framework to understand how toxins recognize receptors, penetrate membranes and interact with and modify intracellular substrates. Edited by two of the most highly regarded experts in the field from the Institut Pasteur, France 14 brand new chapters dedicated to coverage of historical and general aspects of toxinology Includes the major toxins of both basic and clinical interest are described in depth Details applied aspects of toxins such as therapy, vaccinology, and toolkits in cell biology Evolutionary and functional aspects of bacterial toxins evaluated and summarized Toxin applications in cell biology presented Therapy (cancer therapy, dystonias) discussed Vaccines (native and genetically engineered vaccines) featured Toxins discussed as biological weapons, comprising chapters on anthrax, diphtheria, ricin etc.

American Book Publishing Record 1996

Natural Toxins 2 Bal Ram Singh 2012-12-06 From beach encounters, aquaculture perils, and processed-food poisoning to snake bites and biological warfare, natural toxins seem never to be far from the public's sight. A better understanding of toxins in terms of their origin, structure, structure-function relation ships, mechanism of action, and detection and diagnosis is of utmost importance to human and animal food safety, nutrition, and health. In addition, it is now clear that many of the toxins can be used as scientific tools to explore the molecular mechanism of several biological processes, be it a mechanism involved in the function of membrane channels, exocytosis, or cytotoxicity. Several of the natural toxins have also been approved as therapeutic drugs, which has made them of interest to several pharmaceutical companies. For example, botulinum neurotoxins, which have been used in studies in the field of neurobiology, have also been used directly as therapeutic drugs against several neuromus cular diseases, such as strabismus and blepherospasm. Toxins in combination with modem biotechnological approaches are also being investigated for their potential use against certain deadly medical problems. For example, a combination of plant toxin ricin and antibodies is being developed for the treatment of tumors. The great potential of natural toxins has attracted scientists of varying backgrounds-pure chemists to cancer biologists-to the study of fundamental aspects of the actions of these toxins.

Endotoxins: Structure, Function and Recognition Xiaoyuan Wang 2010-06-30 Endotoxins are potentially toxic compounds produced by Gram-negative bacteria including some pathogens. Unlike exotoxins, which are secreted in soluble form by live bacteria, endotoxins are comprised of structural components of bacteria. Endotoxins can cause a whole-body inflammatory state, sepsis, leading to low blood pressure, multiple organ dysfunction syndrome and death. This book brings together contributions from researchers in the forefront of these subjects. It is divided into two sections. The first deals with how endotoxins are synthesized and end up on the bacterial surface. The second discussed how endotoxins activate TLR4 and, in turn, how TLR4 generates the molecular signals leading to infectious and inflammatory diseases. The way endotoxins interact with the host cells is fundamental to understanding the mechanism of sepsis, and recent research on these aspects of endotoxins has served to illuminate previously undescribed functions of the innate immune system. This volume presents a description of endotoxins according to their genetic constitution, structure, function and mode of interaction with host cells.

The Journal of Immunology 1996-12

Durchflusszytometrische Analyse CD34-exprimierender hämatopoetischer Zellen in Blut und Zytaphereseprodukten Volker Kretschmer 1996

***Bacterial Infection: Close Encounters at the Host Pathogen Interface* Peter K. Vogt 1997-10-09 When it comes to bacterial disease, we are living in a state of false security. Antibiotics have indeed brought unprecedented health benefits, protection from and cure of bacterial diseases during the past 50 years. But there are ominous signs that the fortress and the defenses built on antibiotics are crumbling. They are crum bling because we wittingly or unwittingly created selective con ditions for the emergence of superior pathogens that can no longer be controlled by antibiotics. There are numerous warnings. After a long period of eclipse tuberculosis has now emerged as a serious threat unchecked by antibiotic treatment. Recent years have seen reports of cholera epidemics, of anthrax infections, of serious problems with Salmonella and even with E. coli, just to name a few. Mankind is in a race with microbial invaders. The challenge is to anticipate and respond to developments that affect the precarious balance between man and microbe. This will re quire new knowledge and it will take time for an effective appli cation of that knowledge.**