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KEY=MICROBIOLOGY - ROWAN LIA

IgE Antibodies: Generation and Function

Springer This volume examines all facets of the complex biology of Immunoglobulin E (IgE) antibodies, which play an essential role in the pathophysiology of allergic diseases and immunity to parasites. It highlights the unique mechanisms involved in the regulation of IgE production at both the molecular and cellular level. Furthermore, it discusses in detail novel findings on how the affinity, specificity and cross-reactivity of IgE can fine-tune mast cell responses to allergens. The book also explores the beneficial roles of IgE antibodies in immunity to helminthes and protection against tumors, and how the properties of IgE-mediated immunity are employed in the development of IgE therapeutic antibodies. All chapters were written by respected experts in their fields and will appeal to scientists and clinicians alike.

Janeway's Immunobiology

Garland Science The Janeway's Immunobiology CD-ROM, Immunobiology Interactive, is included with each book, and can be purchased separately. It contains animations and videos with voiceover narration, as well as the figures from the text for presentation purposes.

Trends in Allergic Conditions Among Children

United States, 1997-2011

Mast Cells and Basophils

Academic Press Mast Cells and Basophils will be essential reading for immunologists, biochemists and medical researchers. Detailed chapters cover all aspects of mast cell and basophil research, from cell development, proteases, histamine, cysteinyl leukotrienes, physiology and pathology to the role of these cells in health and disease. Chapters also discuss the clinical implications of histamine receptor antagonists.

Structure and Function of Antibodies

MDPI This book provides a detailed description of all kinds of therapeutic antibodies including IgGs, IgAs, IgEs, and IgMs, bispecific antibodies, chimeric antigen receptor antibodies, and antibody fragments. Details about how each of these antibodies interact with their ligands, the immune system, and their targets are provided. Additionally, this book delves into the details of antibody, Fc, and variable chain structures, and how subtle changes in structure, charge, flexibility, post-translational modification, and the ability to bind to natural antibody ligands can result in a significant impact on antibody activity and functionality. Finally, the book explains the critical quality attributes of modern therapeutic antibodies and how to ensure that antibodies entering development have the best possible chance of success.

Pathogenesis of Systemic Lupus Erythematosus

Insights from Translational Research

Springer Nature

Antibody Glycosylation

Springer Nature This book summarizes recent advances in antibody glycosylation research. Covering major topics relevant for immunoglobulin glycosylation - analytical methods, biosynthesis and regulation, modulation of effector functions - it provides new perspectives for research and development in the field of therapeutic antibodies, biomarkers, vaccinations, and immunotherapy. Glycans attached to both variable and constant regions of antibodies are known to affect the antibody conformation, stability, and effector functions. Although it focuses on immunoglobulin G (IgG), the most explored antibody in this context, and unravels the natural phenomena resulting from the mixture of IgG glycovariants present in the human body, the book also discusses other classes of human immunoglobulins, as well as immunoglobulins produced in other species and production systems. Further, it reviews the glycoanalytical methods applied to antibodies and addresses a range of less commonly explored topics, such as automatization and bioinformatics aspects of high-throughput antibody glycosylation analysis. Lastly, the book highlights application areas ranging from the ones already benefitting from antibody glycoengineering (such as monoclonal antibody production), to those still in the research stages (such as exploration of antibody glycosylation as a clinical or biological age biomarker), and the potential use of antibody glycosylation in the optimization of vaccine production and immunization protocols. Summarizing the current knowledge on the broad topic of antibody glycosylation and its therapeutic and biomarker potential, this book will appeal to a wide biomedical readership in academia and industry alike. Chapter 4 is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.

Cancer and IgE

Introducing the Concept of AllergoOncology

Humana Press Erika Jensen-Jarolim and Manuel L. Penichet 1. 1 Background Infectious diseases, being the major burden in the history of mankind worldwide th until the beginning of the 20 century, were important triggers in the understanding of immunological mechanisms. In contrast to infectious diseases, reports of all- gies and cancers were less common, but increased tremendously within the last century. Based on the US mortality data of the National Center for Health Statistics, Centers for Disease Control and Prevention 2009, a recent report from the American Cancer Society indicated that the number of cancer deaths increased approximately from 100,000 to 550,000 per year between 1930 and 2006, paralleling the increase of the total population during this period. Leading causes of death from cancer are lung and bronchus cancer, in men prostate cancer, and in women breast c- cer [1, 2]. Normalization to population size shows that the cancer death rate for most malignancies has been generally stable, although the mortality rate of certain malignancies, such as lung and bronchus cancer, has increased over the last 50 years [1-3]. In allergy, the situation is less clear, because for the time period around the turn of th the 19 century, only imprecise information is available. However, within the last 30 years the incidences of allergies has doubled not only in industrial countries, but in developing countries as well [4].

Molecular Biology of the Cell

Novel Advances in Allergy Diagnosis and Treatment

Frontiers Media SA

A Practical Guide to Monoclonal Antibodies

John Wiley & Sons Includes all of the information required to produce monoclonal antibodies in the laboratory and to prepare them for use in a multitude of given applications. Production procedures are treated in chronological order, beginning with basic tissue culture techniques, immunization strategies and screening test design, followed by production of hybridoma cell lines and basic antibody characterization, purification and labeling. Each chapter contains explanatory text on each step with comparative analysis of methods where appropriate. All necessary experimental protocols are presented in a self-contained format that is easy to follow in the laboratory. Alternative protocols are provided where relevant; for others not included in full, source references are presented. Surveys the

current status of human hybridoma production and antibody engineering using molecular biology techniques.

Current Topics in Microbiology and Immunology

Springer Science & Business Media

Current Topics in Microbiology and Immunology

Immunotherapy

Myths, Reality, Ideas, Future

BoD – Books on Demand This is another attempt of InTechOpen to continue the dissemination of international knowledge and experience in the field of immunology. The present book includes a number of modern concepts of specialists and experts in the field of immunotherapy, covering the major topics and analyzing the history, current stage, and future ideas of application of modern immunomodulation. It is always a benefit, but also a compliment, to gather a team of internationally distinguished authors and to motivate them to reveal their expertise for the benefit of medical science and health practice. On behalf of all readers, immunologists, immunogeneticists, biologists, oncologists, microbiologists, virologists, hematologists, chemotherapists, health-care experts, as well as students and medical specialists, also on my personal behalf, I would like to extend my gratitude and highest appreciation to InTechOpen for giving me the unique chance to be the editor of this exclusive book.

Severe Asthma

European Respiratory Society Severe asthma is a form of asthma that responds poorly to currently available medication, and its patients represent those with greatest unmet needs. In the last 10 years, substantial progress has been made in terms of understanding some of the mechanisms that drive severe asthma; there have also been concomitant advances in the recognition of specific molecular phenotypes. This ERS Monograph covers all aspects of severe asthma – epidemiology, diagnosis, mechanisms, treatment and management – but has a particular focus on recent understanding of mechanistic heterogeneity based on an analytic approach using various ‘omics platforms applied to clinically well-defined asthma cohorts. How these advances have led to improved management targets is also emphasised. This book brings together the clinical and scientific expertise of those from around the world who are collaborating to solve the problem of severe asthma.

Drug Allergy Testing

Elsevier Health Sciences With a focus on improving diagnosis and treatment, *Drug Allergy Testing* is your new go-to resource for understanding various drug allergies and testing methods, the epidemiology of and economic impact of drug allergies, and new drug and allergy developments. Features a wealth of up-to-date information for allergists, immunologists, and primary care physicians who diagnose and treat patients with drug allergies and hypersensitivity. Covers the basics of drug allergy evaluation and management as well as specific drugs including antibiotics, ASA/NSAIDs, chemotherapeutic agents and monoclonal antibodies.

Middleton's Allergy

Principles & Practice

This best-selling resource has a worldwide reputation as the leader in its field. Focusing on human immunology and biology, while also reporting on scientific experimentation and advancement, it provides comprehensive coverage of state-of-the-art basic science as well as authoritative guidance on the practical aspects of day-to-day diagnosis and management. This new edition includes 700 full-color illustrations and a new, more accessible format to make finding information a snap for the busy practitioner. And this Expert Consult Edition offers online access to the complete contents of the 2-volume set, fully searchable, and much more. Includes a glossary of allergy and immunology for quick and easy reference. Contains keypoints and clinical pearls highlighted to find important information quickly. links to useful online resources both for you and for your patients. Offers contributions from hundreds of international authorities for world-class expertise in overcoming any clinical challenge.

Bibliography of Medical Reviews

Autoantibodies

Elsevier Autoantibodies was published and presented in November 2006 at the International Congress of Autoimmunity in Sorrento, a small town in Campania, Italy. The Congress also celebrated the 100th anniversary of the first routine test for autoantibodies. An autoantibody is a type of antibody that is produced by the immune system and that fights one or more of a person's own proteins. These autoantibodies cause autoimmune diseases such as lupus erythematosus. The authors and editors of this book provide a critical review of autoantibodies and their primary functions. They cite a number of major developments in the field of autoantibodies, including the detection of autoantibodies in which a healthy person is a carrier; the discovery that autoantibodies can be both pathogenic and protective in some cases; and the development of a device that will help monitor and detect a specific autoantibody using a small amount of serum and proteomic arrays. Aside from the pathogenic and protective autoantibodies, the book also discusses irrelevant autoantibodies, as these may be relevant for future research. It also addresses the importance of the autoantibodies in a person's body. Clinical physicians, as well as scientists interested in the significance of autoantibodies in the human body, will find this book relevant. It will also be of interest to those who suffer from an autoimmune disease. * Includes and exhaustive list of autoantibodies not covered by other publications * Short reviews can easily be checked for quick reference information * Both basic and clinical aspects are covered

Trends in Asthma Prevalence, Health Care Use, and Mortality in the United States, 2001-2010

Allergy

The Unmet Need : a Blueprint for Better Patient Care

Royal College of Physicians

The Immunoglobulins

Structure and Function

Academic Press This book provides comprehensive up-to-date information on the structure and function of immunoglobulins. It describes the basic features of these molecules, which assists the reader in understanding how they function as an integral part of the immune system. The *Immunoglobulins* describes the localization and structure of different binding sites of immunoglobulin molecules, including the antigen-binding site, on the basis of latest x-ray crystallography studies. It discusses recently developed biotechnological methods that allow scientists to obtain fully active antibody molecules in vitro even without immunization and to construct new variants of immunoglobulins and their fragments by fusing with various other active molecules. A survey of recent knowledge on immunoglobulin-binding molecules other than antigens and on flexibility of immunoglobulin molecules concludes the discussion of functional aspects of the problem. Describes recent reviews on the structure and function of immunoglobulin molecules of various species Summarizes in detail recent findings on the fine structure of the antigen-combining site Presents comparative data on the antigen-recognizing sites of other molecules such as MHC proteins and T-cell receptors Summarizes growing data on immunoglobulin binding sites responsible for the reaction of immunoglobulins with molecules other than antigens Explores the rapid advance of recent biotechnological methods used for the construction of antibody molecules and their fragments with new properties Presents extensive references and is lavishly illustrated

Allergy E-Book

Elsevier Health Sciences The new edition of *Allergy*, by Drs. Stephen Holgate, Martin Church, David Broide, and Fernando Martinez, uses an enhanced clinical focus to provide the clear, accessible guidance you need to treat allergy patients. A more consistent format throughout features new differential diagnosis and treatment algorithms, updated therapeutic drug information in each chapter, and additional coverage of pediatric allergies. With current discussions of asthma, allergens, pollutants, drug treatment, and more, this comprehensive resource is ideal for any non-specialist who treats patients with allergies. Prescribe appropriate therapies and effectively manage patients' allergies using detailed treatment protocols. Identify allergic conditions quickly and easily with algorithms that provide at-a-glance assistance. Explore topics in greater detail using extensive references to key literature. Manage allergies in both adult and pediatric patients using coverage of treatment practices for both in each chapter. Stay current on hot topics including asthma, allergens, pollutants, and more. Get up-to-date coverage of cell-based condition with brand new chapters on Eosinophilia: Clinical Manifestations and

Therapeutic Options and Systemic Mastocytosis. Apply the latest best practices through new and updated treatment algorithms. Find therapeutic drug information more easily with guidance incorporated into each chapter.

Evolution of Atopic Dermatitis in the 21st Century

Springer This comprehensive guide offers a state-of-the-art overview of basic and clinical aspects of atopic dermatitis (AD). The name "atopic dermatitis" was first used in 1933, and Drs. Lewis Webb Hill and Marion B. Sulzberger presented their report "Evolution of atopic dermatitis" in 1935. Their observations accurately forecasted the contemporary issues in the management of the condition, such as the conclusions that should be drawn from our understanding of the pathogenesis of AD, and the use of steroids as the main treatment. Several aggravating factors have recently been identified, and these also need to be addressed. In this context, the expert contributors to this book describe and discuss the evolution of atopic dermatology from Sulzberger's era to the present day, including clinical manifestations, etiopathology and treatment. In addition, it explores skin care intervention, the role of microbiom and GWAS studies, and presents unique, previously unpublished cohort studies. It provides insights into the dynamic changes in AD since Sulzberger introduced topical steroids for its treatment. It is a valuable resource for dermatologists, medical practitioners and researchers who are interested in atopic dermatology.

Insights into the Etiology, Prevention, and Treatment of Food Allergy

Frontiers Media SA This eBook is a collection of articles from a Frontiers Research Topic. Frontiers Research Topics are very popular trademarks of the Frontiers Journals Series: they are collections of at least ten articles, all centered on a particular subject. With their unique mix of varied contributions from Original Research to Review Articles, Frontiers Research Topics unify the most influential researchers, the latest key findings and historical advances in a hot research area! Find out more on how to host your own Frontiers Research Topic or contribute to one as an author by contacting the Frontiers Editorial Office: frontiersin.org/about/contact.

Immunisation against infectious diseases

The Stationery Office 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.

Thyroid Autoimmunity

Springer Science & Business Media In 1956, three groups independently reported evidence that some thyroid disease appearing spontaneously in humans or experimentally induced in animals are related to autoimmune processes. The interval between these landmark discoveries and the present has witnessed a remarkable and continuing growth of both knowledge and concepts concerning the mechanisms of immune regulation, the pathogenesis of autoimmune thyroid diseases, and their clinical and laboratory manifestations. More importantly knowledge of thyroid autoimmunity has, in many respects, comprised the vanguard of an ever increasing appreciation and understanding of autoimmune diseases in general. On November 24-26 1986, an International Symposium on Thyroid Autoimmunity was held in Pisa. Its purpose was to commemorate the birth of thyroid autoimmunity as a scientific discipline, to summarize current knowledge and concepts in this area, and where possible, to anticipate areas of opportunity for the future - hence the theme of the Symposium, Memories and Perspectives. To open the meeting, the Magnifico Rettore (Chancellor) of the University of Pisa granted special Awards to Dr. Deborah Doniach, Dr. Ivan Roitt, and Dr. Noel R. Rose, who published the first fundamental studies in the field of thyroid autoimmunity, and to Dr. Duncan G. Adams, whose discovery of the long-acting thyroid stimulator (LATS) opened the door to our current understanding of the pathogenesis of Graves' disease. During the meeting thirty plenary lectures were presented.

ELISA

Methods and Protocols

Humana Press This volume is a practical biochemical guide to the Enzyme-Linked Immunosorbent Assay (ELISA), used to detect a target substance in a liquid sample. The ELISA is an important and widely used diagnostic tool in medicine, animal health, botany and quality assurance processes in food and beverage production. An introductory chapter orients the reader on the basic structure and function of immunoglobulins and their fragments while subsequent chapters outline the methodology to generate monoclonal antibodies using hybridoma technology and the general methods used to purify antibodies. Multiple chapters demonstrate how to creatively use the properties of the antibody to identify, localize and quantify target analytes to answer questions and resolve problems. The reader will learn how to use a variety of immunoassay strategies, reporters and detection systems that will undoubtedly facilitate their efforts to gain answers to their own questions. Written in the successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible protocols and notes on troubleshooting and avoiding known pitfalls. Authoritative and easily accessible, ELISA: Methods and Protocols seeks to provide both professionals and novices with the technical information necessary for the reader to successfully use the immunoassay as part of the discovery process.

Adverse Effects of Vaccines

Evidence and Causality

National Academies Press In 1900, for every 1,000 babies born in the United States, 100 would die before their first birthday, often due to infectious diseases. Today, vaccines exist for many viral and bacterial diseases. The National Childhood Vaccine Injury Act, passed in 1986, was intended to bolster vaccine research and development through the federal coordination of vaccine initiatives and to provide relief to vaccine manufacturers facing financial burdens. The legislation also intended to address concerns about the safety of vaccines by instituting a compensation program, setting up a passive surveillance system for vaccine adverse events, and by providing information to consumers. A key component of the legislation required the U.S. Department of Health and Human Services to collaborate with the Institute of Medicine to assess concerns about the safety of vaccines and potential adverse events, especially in children. Adverse Effects of Vaccines reviews the epidemiological, clinical, and biological evidence regarding adverse health events associated with specific vaccines covered by the National Vaccine Injury Compensation Program (VICP), including the varicella zoster vaccine, influenza vaccines, the hepatitis B vaccine, and the human papillomavirus vaccine, among others. For each possible adverse event, the report reviews peer-reviewed primary studies, summarizes their findings, and evaluates the epidemiological, clinical, and biological evidence. It finds that while no vaccine is 100 percent safe, very few adverse events are shown to be caused by vaccines. In addition, the evidence shows that vaccines do not cause several conditions. For example, the MMR vaccine is not associated with autism or childhood diabetes. Also, the DTaP vaccine is not associated with diabetes and the influenza vaccine given as a shot does not exacerbate asthma. Adverse Effects of Vaccines will be of special interest to the National Vaccine Program Office, the VICP, the Centers for Disease Control and Prevention, vaccine safety researchers and manufacturers, parents, caregivers, and health professionals in the private and public sectors.

Fc Mediated Activity of Antibodies

Structural and Functional Diversity

Springer Nature This volume explores several aspects of how antibodies mediate their activity in vivo, ranging from cancer immunotherapy to autoimmunity, infection, and vaccination. Divided into seven chapters, it provides in-depth insights into how antibodies and especially the antibody fragment crystallizable (Fc) domain modulate immune responses and antibody activity. The book begins by discussing evolutionary aspects of how the family of Fc receptors that are the key molecules for antibody activity evolved. In turn, it addresses the molecular and cellular pathways underlying IgG activity in cancer immunotherapy, and focuses on how IgG glycosylation regulates IgG and IgE activity in autoimmunity, allergy and infection. In closing, it presents strategies for developing novel antibody-based vaccination approaches. The book is intended for a very broad readership, including graduate students, postdocs and principal investigators with a basic grasp of immunology.

T Cell Hybridomas

A Workshop at the Basel Institute for Immunology

Springer Science & Business Media For more than ten years cell fusion techniques have been applied in studies on various lymphocyte functions. Ig expression was first studied in hybrids obtained by fusing myeloma cells with fibroblasts (1) or lymphomas (2), both of which do not produce Ig, and with Ig producing myelomas (3) or human blood lymphocytes (4). Kohler and Milstein (5) fused a myeloma with spleen cells from immunized mice. Up to 10% of the hybrids obtained secreted antibodies specific for the immunizing antigen. This suggested that plasma cells preferentially fused with the myeloma cells, a finding which was of enormous practical value. It was found that both Band T lymphocytes could be fused with the T cell tumor BW5147, which is however not permissive for Ig synthesis (6). A very large number of T cell hybridomas were generated by fusing BW5147 with cell populations containing in vivo or in vitro activated cells (7). The hybrids showed no specific T cell functions and binding assays for T cell receptors were not available. In particular, no hybrids were obtained which expressed specific cytolytic activity that could be tested in short-term Cr release assays (8). However, the frustrations expressed about these failures, published in January, 1978 (9), were relieved by Taniguchi and Miller's publication a few months later of T cell hybridomas producing antigen-specific suppressor factors (10). Unfortunately, their hybrids rapidly lost factor production.

Immunology and Skin Diseases

Hodder Education

An Antigen Depository of the Immune System: Follicular Dendritic Cells

Springer Science & Business Media Follicular dendritic cells (FOe) are unique among cells of the immune system. While their morphological characteristics resulted in their inclusion as a 'dendritic cell type', they differ quite significantly from the other members of the dendritic cell family. In contrast to T-cell-associated dendritic cells or the Langerhans cells found in the skin, FOe reside in highly organized B cell follicles within secondary lymphoid tissues. This site of residence provided a nomenclature committee in 1982 with the second descriptive factor for the derivation of their name. The cardinal feature of FOe is to trap and retain antigen on the surface of their dendritic processes for extended amounts of time and it is this feature that provides the conceptual component for the title of this book. In response to an antigenic challenge, primary B cell follicles undergo dynamic events, giving rise to germinal centers which are associated with activation, expansion, and differentiation processes of B cells. The interactions of B cells with FOe and T cells in the germinal centers are essential for generating the complete repertoire of antibody isotypes obtained during an antibody response. In addition, stimuli either initiated or maintained during the germinal center response leads to production of high affinity antibodies through the processes of somatic mutation and clonal selection. In this context, FOe act as a pivotal source of antigen. They accumulate foreign proteins (e. g.

WHO Guidelines for Indoor Air Quality

Selected Pollutants

World Health Organization This book presents WHO guidelines for the protection of public health from risks due to a number of chemicals commonly present in indoor air. The substances considered in this review, i.e. benzene, carbon monoxide, formaldehyde, naphthalene, nitrogen dioxide, polycyclic aromatic hydrocarbons (especially benzo[a]pyrene), radon, trichloroethylene and tetrachloroethylene, have indoor sources, are known in respect of their hazardousness to health and are often found indoors in concentrations of health concern. The guidelines are targeted at public health professionals involved in preventing health risks of environmental exposures, as well as specialists and authorities involved in the design and use of buildings, indoor materials and products. They provide a scientific basis for legally enforceable standards.

Current Topics in Mucosal Immunology 1993

Proceedings of the Tokyo International Symposium on Mucosal Immunology, Keidanren Kaikan, 25-27 August, 1993

Elsevier Science & Technology The advancement of immunology is very rapid, necessitating incessant exchanges of information. These proceedings are taken from a symposium organized to celebrate the 15th anniversary of the Japanese Society for Digestive Organs and Immunology. They discuss current features of mucosal immunology.

Allergen

BoD - Books on Demand Allergy is a main problem of public health in the world. Many people in all countries are suffering from this problem. Some diseases (i.e. allergic rhinitis, allergic asthma, food allergy, urticaria, eczema, etc.) have allergic reaction pathophysiology, and with control of allergic mechanisms, these diseases can be controlled and cured. The current book entitled Allergen has focused on allergy, mechanism, diagnosis, treatment, and other related problems. Chapters of the book have good data on allergy-based medical sciences and would be a benefit for all researchers in immunology, allergy, and asthma fields. Current discussions would be useful for prevention, diagnosis, treatment, and follow-up of atopic patients. We hope these chapters could be a new approach in immunotherapy of allergic diseases and help in the progress of healthy system.

Normal and Malignant B-Cell

BoD - Books on Demand Normal and Malignant B-Cell is a collection of harmonious chapters contributed by different authors. This book sets out to describe the B-cell during different stages of ontogeny and the molecular mechanisms of its antigen receptor diversity. It also discusses the main clinical and etiopathogenic aspects when it is transformed into a malignant cell. The book will be interesting and useful for clinicians, biologists, researchers, teachers, and graduate students of both doctoral and master's degrees in the field of immunology.

CRC Desk Reference for Allergy and Asthma

CRC Press As the prevalence of allergic diseases and asthma has increased in recent years, scientists have intensified research efforts to understand the pathogenesis of these sometimes debilitating conditions. Indeed, researchers have provided key insights-and new concepts-that have changed therapeutic strategies. Moreover, allergic inflammation has served as something of a model in furthering our understanding of regulatory mechanisms of inflammation in general. Presented in an encyclopedic format, the CRC Desk Reference for Allergy and Asthma provides the latest scientific information on allergic diseases and asthma. It combines knowledge from clinical immunology with basic immunology, pharmacology, biochemistry, and molecular biology to examine new treatment strategies for allergic diseases and asthma. Highlights of the CRC Desk Reference for Allergy and Asthma include: EASE OF USE. This desk reference presents topics in alphabetical order so that they are easy to find. CROSS-REFERENCING. Utilizes cross-referencing to aid in the rapid switch between basic and clinical science. UNIFIED NOMENCLATURE. Greatly assists those readers who are new in the field. HIGHLIGHTS VITAL INFORMATION. Vital information is highlighted in boxes, allowing rapid identification of key concepts. Written by leading authorities in the field, the CRC Desk Reference for Allergy and Asthma serves as a timely reference for anyone interested in this area of research. Not only does it present information in an easy-to-use format, but it addresses many hot topics and views that will have sustaining value for years to come.

Monoclonal Antibody Production

National Academies Press The American Anti-Vivisection Society (AAVS) petitioned the National Institutes of Health (NIH) on April 23, 1997, to prohibit the use of animals in the production of mAb. On September 18, 1997, NIH declined to prohibit the use of mice in mAb production, stating that "the ascites method of mAb production is scientifically appropriate for some research projects and cannot be replaced." On March 26, 1998, AAVS submitted a second petition, stating that "NIH failed to provide valid scientific reasons for not supporting a proposed ban." The office of the NIH director asked the National Research Council to conduct a study of methods of producing mAb. In response to that request, the Research Council appointed the Committee on Methods of Producing Monoclonal Antibodies, to act on behalf of the Institute for Laboratory Animal Research of the Commission on Life Sciences, to conduct the study. The 11 expert members of the committee had extensive experience in biomedical research, laboratory animal medicine, animal welfare, pain research, and patient advocacy (Appendix B). The committee was asked to determine whether there was a scientific necessity for the mouse ascites method; if so, whether the method caused pain or distress; and, if so, what could be done to minimize the pain or distress. The committee was also asked to comment on available in vitro methods; to suggest what acceptable scientific rationale, if any, there was for using the mouse ascites method; and to identify regulatory requirements for the continued use of the mouse ascites method. The committee held an open data-gathering meeting during which its members summarized data bearing on those questions. A 1-day workshop (Appendix A) was attended by 34 participants, 14 of whom made formal presentations. A second meeting was held to finalize the report. The present report was written on the basis of information in the literature and information presented at the meeting and the workshop.

Advances in Immunology

Academic Press Advances in Immunology, a long-established and highly respected publication, presents current developments as well as comprehensive reviews in immunology. Articles address the wide range of topics that comprise immunology, including molecular and cellular activation mechanisms, phylogeny and molecular evolution, and clinical modalities. Edited and authored by the foremost scientists in the field, each volume provides up-to-date information and directions for future. Contributions from leading authorities and industry experts informs and updates on all the latest developments in the field