Bionetics does it for you.

Enzyme Labelled Products

FOR ANTIGEN OR ANTIBODY DETECTION

For performing the latest enzyme-immunologic techniques, we provide quality peroxidase labelled antigens or antibodies.

CHECK THE ADVANTAGES:

- ✓ Maximum Reactivity
- ✓ High Sensitivity
- ✓ Low Background
- ✓ Multiple Staining
- ✓ Permanent Staining
- ✓ Convenient Light Microscopy
- ✓ Immuno-electron Microscopy

SPECIFIC ANTIBODY, PEROXIDASE LABELLED EnzAbody™ Reagents

- Goat anti-human $IgA(\alpha)*$
- Goat anti-human IgG (γ)*
- Goat anti-human $IgM(\mu)^*$
 - *F(ab')₂ fragment of specific antibody also available
- Goat anti-human IgG (H+L)
- Rabbit anti-goat IgG (H+L)
- Goat anti-mouse IgG (H+L)
- Goat anti-guinea pig IgG (H+L)
- Goat anti-rabbit IgG (H+L)

ANTIGEN, PEROXIDASE LABELLED

EnzAgen™ Reagents

- Fc fragment of human IgG
- Fc fragment of chimp IgG
- Fc fragment of rhesus IgG
- Peroxidase-anti-peroxidase (rabbit)
- Peroxidase-anti-peroxidase (goat)
- Peroxidase-anti-peroxidase (guinea pig)
- Peroxidase-anti-peroxidase (chimp)
- Peroxidase-anti-peroxidase (rhesus)

These reagents are for research use only and are not for use in humans, nor for diagnostic or therapeutic purposes.

Write for technical brochure and pricing information.



FLUORESCEIN ISOTHIOCYANATE 100 mg \$35.00 Used in the preparation of:

Fluorescein Conjugated IgG Fraction of Cappel Antiserums Fluorescein Conjugated F(ab')₂ Fragments of Cappel Antiserums Fluorescein Conjugated Antigens

RHODAMINE TETRAMETHYL ISOTHIOCYANATE 100 mg \$46.00 Used in the preparation of:

Rhodamine Conjugated IgG Fractions of Cappel Antiserums Rhodamine Conjugated F(ab')₂ Fragments of Cappel Antiserums Rhodamine Conjugated Antigens



Specialists in Fluorescein, Rhodamine, Ferritin, Peroxidase and Custom Conjugations and of Conjugated F (ab')₂ Fragments or Fab Fragments of Antiserums.

Cappel Laboratories, Inc.

COCHRANVILLE, PA. 19330 • (215) 593-6914

Cellulose ion exchangers should be spherical too

DEAE-Sephacel® is



DEAE-Sephacel
Total capacity: 1.4 meq/g
Wet diameter: 40–160 um

The spherical form of DEAE-Sephacel gives you easy, uniform packing without the generation of fines. It improves your results because it reduces zone broadening and ensures uniform, high flow rates. DEAE-Sephacel is reproducible from batch-to-batch.

No precycling is needed because DEAE-Sephacel is ready swollen. Its controlled macroporous structure, which is almost completely independent of pH and ionic strength, gives high protein capacities and excellent recoveries.

DEAE-Sephacel is the only spherical cellulose ion exchanger.



IMMUNOELECTROPHORESIS? LOOK AT MILES



If you want a closer look at our immunoelectrophoresis products, call or write for our illustrated catalog.

Miles Laboratories, Inc. Elkhart, Ind. 46514 Phone: 219-264-8804

Miles Laboratories Ltd.
Post Office Box 37, Stoke Poges
Slough England SL 2 4 LY
Phone: Farnham Common 2151

Asthma

PHYSIOLOGY, IMMUNOPHARMACOLOGY, AND TREATMENT

Second International Symposium
Edited by LAWRENCE M. LICHTENSTEIN
and K. FRANK AUSTEN

Written by specialists in the physiology, pharmacology, immunochemistry, and clinical course of bronchial asthma, this book uses current understanding of the pathophysiology of asthma as a background for examining the theoretical basis of therapy. It describes the various factors of possible relevance to asthma that have been studied *in vitro* and *in vivo* in cell, tissue and organ systems, delineating areas of general agreement and areas requiring further investigation. Detailed explorations of each issue range back and forth between the fundamental points and their clinical implications.

Volume 2, 1977, 432 pp., \$29.50/£20.95 ISBN: 0-12-448502-2

SECOND EDITION

The Plasma Proteins

STRUCTURE, FUNCTION AND GENETIC CONTROL

Edited by FRANK W. PUTNAM FROM THE PREFACE:

The purpose of this treatise is to describe the plasma proteins in a systematic integrated fashion. The intention is to present first the perspectives and a global look at plasma proteins, then a series of chapters on the well-characterized major proteins, followed by comprehensive chapters on integrated systems of plasma proteins. The emphasis is on structure, function and genetic control rather than on metabolism and biosynthesis.

CONTENTS: F. W. Putnam, Immunoglobulins I. Structure. Immunoglobulins II. Antibody Specificity and Genetic Control. Immunoglobulins III. Comparative Biochemistry and Evolution. R. M. Krause and T. J. Kindt, Antibodies with Molecular Uniformity. F. W. Putnam, The Group-Specific Component (Gc) System. H. N. Antoniades, Circulating Hormones. E. W. Davie and D. J. Hanahan, Blood Coagulation Proteins. K. Heide et al., Plasma Protein Fractionation.

Volume 3, 1977, 640 pp., \$49.50/£35.15 Subscription Price: \$42.00 ISBN: 0-12-568403-7

Methods in Enzymology

Editors-in-Chief: SIDNEY P. COLOWICK and NATHAN O. KAPLAN

Volume 46/AFFINITY LABELING

Edited by WILLIAM B. JAKOBY and MEIR WILCHECK

CONTENTS: General Methodology. Specific Procedures for Enzymes, Antibodies, and Other Proteins: Proteolytic Systems; Nucleotide and Nucleic Acid Systems; Carbohydrate Systems; Amino Acid Systems; Steroid Systems; Antibodies; Other Proteins; Receptors and Transport Systems. Specific Procedures for Nucleic Acids and Ribosomal Systems. 1977, 784 pp., \$45.00/£31.95 ISBN: 0-12-181946-9

Regulatory Genetics of the Immune System

Edited by ELI S. SERCARZ, LEONARD A. HERZENBERG and C. FRED FOX

ICN-UCLA Symposia on Molecular and Cellular Biology

This volume presents the proceedings of the ICN-UCLA Symposia on the Immune System held at Park City, Utah, in March 1977. Reflecting the vigor of current immunological thinking, the book deals with the organization and expression of genes relating to antibody structure, to surface markers and receptors on lymphocyte subpopulations, to collaborative cellular interactions, and to newer systems of somatic cell hybridization. The meeting was highly participatory, and the volume includes virtually all of the plenary papers as well as a summary of each workshop, and selected papers from the poster sessions.

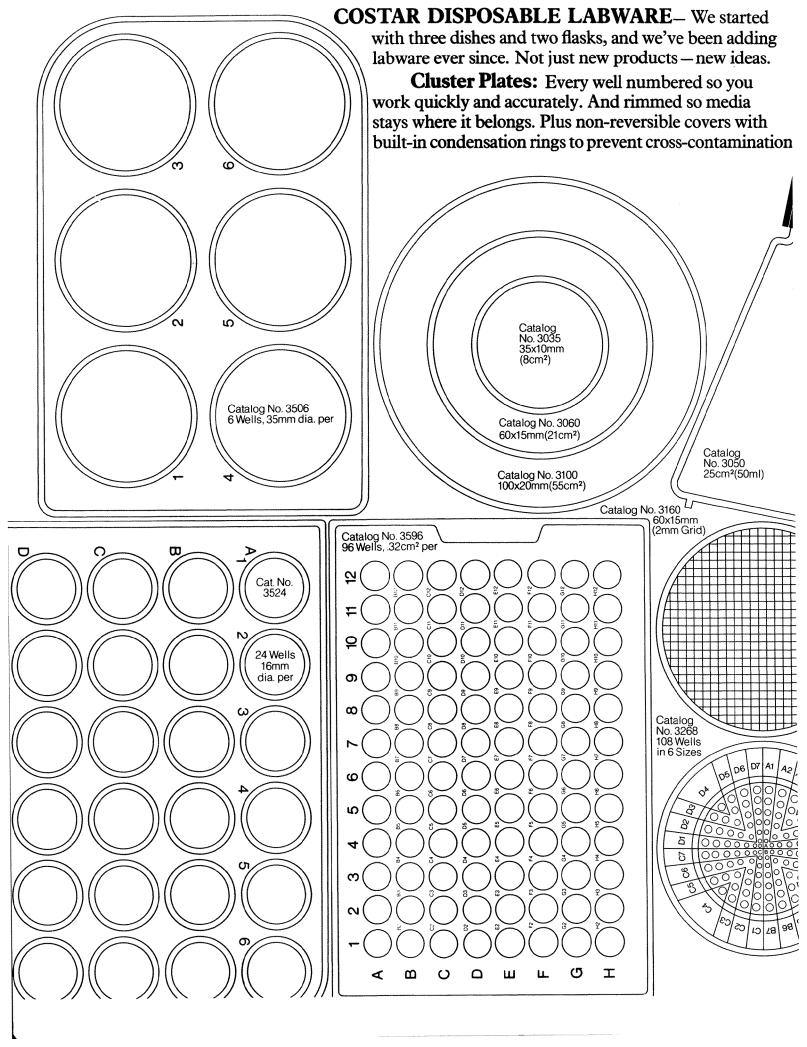
SECTION HEADINGS: Gene Structure and Organization. Idiotypes on *T* and *B* Cells. Lymphocyte Subpopulations and Genes Determining Surface Structures. Genetics of Cell Interactions. MHC and *T*-Cell Recognition. The Membrane and Cell Activation.

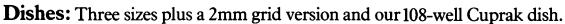
Volume VI, 1977, 784 pp., \$29.50/£20.95 ISBN: 0-12-637160-1

Send payment with orders and save postage plus 50¢ handling. Prices are subject to change without notice.

ACADEMIC PRESS, INC.

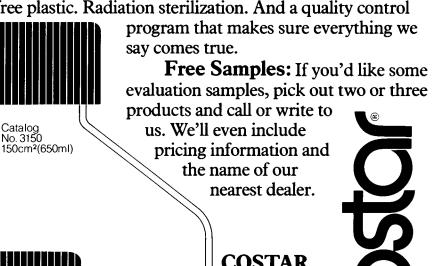
A Subsidiary of Harcourt Brace Jovanovich, Publishers 111 FIFTH AVENUE, NEW YORK, N.Y. 10003 24-28 OVAL ROAD, LONDON NW1 7DX





Flasks: Deep skirted, easy on/off caps. And graduated media markers for accurate filling without the use of a pipette. We even designed a small, wideneck triangular flask that lets you reach more growing surface with a 10ml pipette.

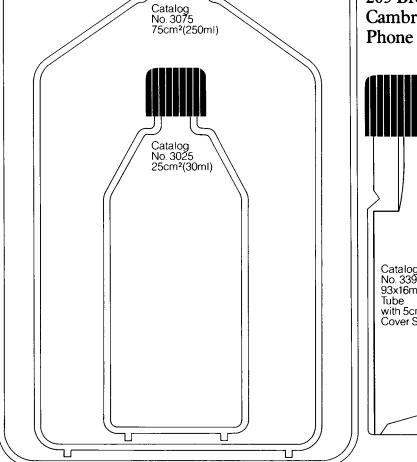
On Everything: Frosted labeling surfaces where necessary. Highly polished, distortion-free plastic. Radiation sterilization. And a quality control



COSTAR

Disposable Labware with Keepable Ideas 205 Broadway Cambridge, MA 02139

Phone (617) 492-1110



18

Catalog No. 3393 93x16mm Tube with 5cm² Cover Slip

This is the first disposable plastic Leighton Tube. The cover slip has a non-slip handle, and the slide has a scribed center line with each half numbered. Treated cover slip, untreated tube helps prevent unintentional cell attachment.



... consistent quality at a reasonable price!

ANTISERUM TO -

C-3 PROACTIVATOR PROPERDIN C-3_b INHIBITOR

Also available IgG, IgA, IgM, etc.
Fluorescein and Rhodamine Conjugates.
Complete range R.I.D. plates.

Call or write for complete listing and special pricing

KENT LABS 13812 N.E. 16th BELLEVUE, WASH. 98004 (206) 746-4500

FLOW LABS GMBH 53 Bonn 3 Diezstrasse 10, W. Germany (02221) 220041 KENT LAB LTD. 1328 MAIN STREET NORTH VANCOUVER, B.C. (604) 986-3355

HUCOA ERLOSS Avda. Del Generalisimo, 161 Madrid 16, Spain 91-215 69 41

MANUFACTURING EXECUTIVE SOUGHT

Biological Production

Ph. D. in biological sciences/bio-chemistry with minimum of 4-5 years is required to head manufacturing operations of viral vaccine department in Fortune 500 firm.

The successful candidate with experience in viral or bacteriological vaccine processing will be responsible for manufacturing and quality control. He will work with 8 to 10 professional subordinates and a work force of 70–100 employees. He must be able to work closely with research and development staff people and coordinate all aspects of manufacturing processing.

Entry compensation is in the mid-thirty thousand dollar a year range. The company is located in a highly desirable Eastern recreational area.

Reply, in complete confidence, with curriculum vitae and compensation status to

Box JI-12 428 E. Preston St. Balto., Md. 21202

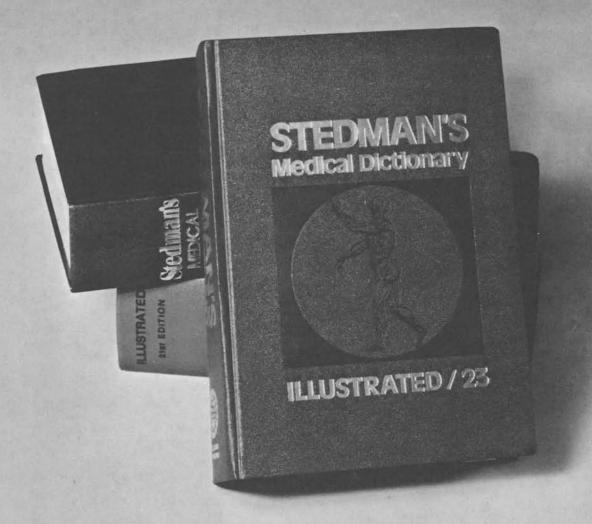
Help us to serve you better....



USE YOUR ZIP CODE

Remember, your zip code provides faster, more direct delivery of your journals. Use it on all correspondence, too.

Practice Makes Perfect



We know you count on your medical dictionary. That's why we made Stedman's 23 as perfect as we knew how.

Drawing upon the combined assets of man and computer, Stedman's captures the total spectrum of terminology relevant to the life sciences. Each definition has been reviewed by as

many as five medical specialists to ensure proper coverage for subjects in overlapping fields.

Late developments in medical research have provided more than half of the 28,000 new or revised entries. Many of these terms are so current that they were still being entered as the main vocabulary was

prepared for press.

Make it your practice to use Stedman's. We've made perfecting it part of ours.

April, 1976, 90,257 entries, 358 illustrations with 31 color plates, 1678 pages \$22.50

Williams & Wilkins

428 E. PRESTON STREET BALTIMORE, MD. 21202

Transplantation is the journal that uses today's research to bring tomorrow into better focus



Researchers and clinicians who need to know what's going on in immunology have long looked to *Transplantation* to find out. In its pages can be found the vitally pertinent information you want as you look for answers to the critical problems of rejection, tissue matching, immunization, and infection.

Hematology, endocrinology, genetics, and embryology are just a few of the specialties in *Transplantation's* cross-disciplinary coverage. Each issue contains formal in-depth papers, as well as brief reports on research from around the world.

As a subscriber to *Transplantation* you can expect to find only the latest information; you will know you are getting the best news first.

WILLIAMS & WILKINS

428 East Preston Street Baltimore, Maryland 21202

please type or print

☐ Yes, enter my subscription for one year of Transplantation's monthly coverage of what's new in immunology. I enclose payment of \$40.00.

SPRAGUE-DAWLEY'S ATHYMIC NUDE PRESERVES TUMOR CHARACTERISTICS MOUSE TO MOUSE.

Bred and raised without the use of antibiotics, every Sprague-Dawley Athymic Nude Mouse is entirely free of any agent which might influence the course of a malignancy culture. Because of this exceptional consistency, serial tumor passage is accomplished without fear of introducing additional variables. And the character of the neoplasm remains intact.

Our Athymic Nude Mouse is an ideal host for many human malignancies. Tumors grow anywhere on the animal's skin but will not metastasize. The animal does not develop spontaneous malignancies. Leukemia cells do not survive. Autoantibody production is rare.

B cell concentration and

capacity are both normal.
Sprague-Dawley delivers the cleanest, healthiest animals from the cleanest facility in the lab animal industry. Your order is shipped in special, filtered containers. And each animal is ready for immediate use.

Little wonder that today's best animal for in vivo studies of tumors and anti-cancer drug research is the Sprague-Dawley Balb/c Athymic Nude Mouse.

Call or write, Sprague-Dawley Sales Headquarters, 29999 Industrial Parkway, Solon, Ohio 44139. (216) 248-2310.

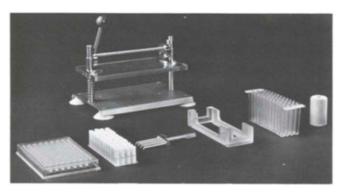




SCHLURP!







Our friend, the good schlurper, has found another fast pickup to team up with . . . the **Titertek Supernatant Collection System.**

Cellular cytotoxicity assays can be performed quickly, economically, and safely with the Titertek Supernatant Collection System. Designed to facilitate the harvesting of supernatant from a standard Titertek/Linbro 96-well, U-shaped microtitration plate, the Titertek Supernatant Collection System separates the cellular components of a culture from the supernatant. Only the isotope released into the supernatant is collected.

The Titertek Supernatant Collection System is . . . **Quick** Harvests 96 wells in less than 30 seconds; eliminates centrifugation of plates;

Titertek and Cell Raisers are trademarks of Flow Laboratories,

Accurate Collects approximately 90% of supernatant, uniformly absorbs it, avoids traumatization of cells during collection;

Convenient Does not remove cells during supernatant collection; Eliminates cross-contamination between wells; Prevents buildup of isotopes in equipment

Economical Collects most of the supernatant, permitting the use of fewer target cells and less radioactive label.

The **Titertek Supernatant Collection System,** one more helper from the Cell Raisers.

If it doesn't say Flow Laboratories, it's not a Cell Raiser product.

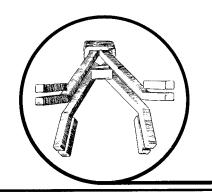


Flow Laboratories

1710 Chapman Avenue Dept. 104 Rockville, Maryland 20852 (301) 881-2900

Inglewood, California Mississauga, Ontario, Canada

INFECTION and the **COMPROMISED HOST**



Edited by James C. Allen, MD

Infection and the Compromised Host discusses the subject of immunology from a seldom-seen viewpoint. Its primary focus is on those clinical situations in which host defenses against infection are impaired. In the exposition of impaired response there is an extensive review of host defense mechanisms and current understanding of their functional significance, as well as those situations in which heritable defects or chemotherapy are associated with increased susceptibility to infectious diseases.

A multicontributor effort, with each author a recognized authority in the overlapping fields of microbiology, medicine, infectious diseases, pediatrics, dermatology, laboratory medicine, and pathology, Infection and the Compromised Host is brought together by its unifying concern with infection as a clinically important determinant of life or death in the patient who is afflicted with an impairment in his defenses.

While other texts in the field are primarily concerned with normal host defenses, Infection and the Compromised Host is not; with its comprehensive examination of impaired defense it adds a vast amount of new source material to the literature. By raising the questions it does, the state of knowledge in this crucially important medical area will be accurately characterized.

1976 / ISBN 0-683-00073-X 181 pages / illustrated / \$11.95

CONTENTS

PREFACE James C. Allen, MD

ANALYSIS AND TREATMENT OF IM-**MUNODEFICIENCY DISEASES** W. D. Biggar, MD

ROLE OF IMMUNE MECHANISMS ON SECRETORY SURFACES IN PRE-VENTION OF INFECTIONS Robert H. Waldman, MD and Rama Ganguly, PhD

INFECTIONS ASSOCIATED WITH T-CELL DYSFUNCTION Thomas Provost, MD

INFECTION ASSOCIATED WITH PHAGOCYTIC CELL DEFICIENCIES Paul G. Quie, MD

SPLENIC AND RETICULOENDOTHE-LIAL FUNCTION AND INFECTION Robert H. Drachman, MD

SUSCEPTIBILITY TO INFECTION RE-LATED TO DEFICIENCIES IN THE COMPLEMENT SYSTEM Thomas Provost, MD and James C. Allen,

INFECTION COMPLICATING NEO-PLASTIC DISEASE AND CYTOTOXIC **THERAPY** James C. Allen, MD

To order titles on 20-day approval, check selections:

WILLIAMS & WILKINS

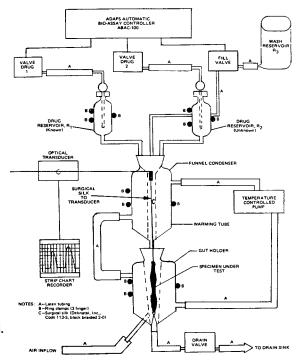
428 East Preston Street Baltimore, Maryland 21202

Save postage and handling by enclosing please type or print payment with order. Maryland residents please add 5% sales tax. NAME. ADDRESS. □ Allen: Infection and the Compromised Host [book #0073-X, \$11.95] CITY STATE ZIP_

> ☐ Check enclosed ☐ Bill me

ADAPS, INC.								
Analog	Digital	Automatic	Program	Systems				

- IDENTIFICATION OF HISTAMINE AND SEROTONIN.
- FOR THE BIOASSAY OF SLOW REACTING SUBSTANCES, E.G., ANAPHYLAXIS, (SRS-A), BRADYKININ AND PROSTAGLANDINS, WITH VARIOUS SMOOTH MUSCLE PREPARATIONS.
- IDENTIFICATION OF CHEMICAL STRUCTURES VIA PHYSICO-CHEMICAL CHARACTERISTICS AND THEIR DIFFERENT BIOLOGIC ACTIVITY ON VARIOUS SMOOTH MUSCLE PREPARATIONS.
- PROVIDES ACCURATE AND RELIABLE CHARACTERISTIC CONTRACTILE RESPONSES ON ISOLATED SMOOTH MUSCLES.
- FOR THE STUDY OF THE EFFECT OF VARIOUS DRUGS, E.G., UPON HEART RATE AND HEART BEAT ACTIVITY AND INTENSITY.
- AUTOMATIC CYCLING AND CONTROL FOR DRAIN AND FILL (up to 3 cycles), STAND, PRE-DRUG DRAIN, DRUG INPUT (up to 4 drugs), AND CONTACT: AUTOMATIC RECORDING OF RESPONSES.
- EACH TIMING CYCLE IS INDEPENDENTLY ADJUSTABLE.
- MANUAL OVERRIDE FOR INDIVIDUAL CYCLE CONTROL & PIPETTE.
- REQUIRES MINIMUM OPERATOR ATTENTION DURING OPERATION.



ADAPS, INC.

300 GREENLODGE ST. DEDHAM, MASS. 02026 TELEPHONE (617) 326-6935

for prompt subscription service...

attach label here

Please use this coupon and attach a *recent* label in the space provided when writing to us about:

- change of address
- renewal
- questions regarding your subscription

Please use the space below to indicate your new address.

Name of Journal	 	 	
Name		 	
Address		 	
City/State/Zip			

THE WILLIAMS & WILKINS COMPANY

428 East Preston Street/Baltimore, Maryland 21202

OXFORD UNIVERSITY PRESS

Basic Immunogenetics Second Edition

H. HUGH FUDENBERG, Medical University of South Carolina; J.R.L. PINK, Basel Institute for Immunology; AN-CHUAN WANG, Medical University of South Carolina; STEVEN D. DOUGLAS.

University of Minnesota Medical School The second edition of this widely acclaimed book presents an updated view of the genetic principles that govern the immune response, with emphasis on the genetics of immunoglobulin molecules and the cells that make these molecules. The authors review established and proposed mechanisms in light of the most recent research on humans and animals. Because of rapid advances in the field, much of the text has been completely rewritten for the second edition. More material has been included on IrG mapping, the function and subpopulation of T cells in relation to immune deficiencies, and histocompatibility genetics, among other topics.

From reviews of the first edition:

"The beauty of this book is in its manner of covering a topic at a broad clinical level, then pursuing it down to its macromolecular basis. The immunologic discussion is written with the same clarity and organization as the phenotypic description."—Archives of Internal Medicine

"A useful text which covers most of the recent exciting advances in immunogenetics....The authors present conceptually difficult topics lucidly."—The Lancet

256 pp.; 43 illus.

cloth \$11.95

paper \$7.95

Human Diseases Caused by Viruses Recent Developments

Edited by HENRY ROTHSCHILD, FRED ALLISON, JR., CALDERON HOWE; with CHARLES F. CHAPMAN, JR., all at Louisiana State University School of Medicine

Sixteen experts in various areas of virology contribute papers that together form an authoritative sourcebook on current research in the diagnosis and treatment of the more important human viral diseases. Some diseases. such as smallpox, have been virtually eliminated from the Western World and therefore are not included in the book. They have been superseded by subjects of greater currency and interest or by those in which recent developments are more definitive and reportable. Since influenza, rubella, encephalitis, and hepatitis continue to be common problems for the clinician each is discussed in its own chapter. Other basic information that should be

accessible to the clinician is covered in chapters on viruscell interactions, hemorrhagic fevers, herpesviruses, Epstein-Barr viruses, papoviruses, RNA tumor viruses, diagnostic virology, immunization, and chemotherapy. Reference tables, a glossary, and numerous illustrations make this a consistent and readable reference for teachers and students of virology, microbiology, and epidemiology, while also lending clinical practicability to internists, pediatricians, family physicians, and all ranks of the medical profession.

January 1978

300 pp.; 50 illus.

\$17.95

Chemotherapy of Infection

WILLIAM B. PRATT, University of Michigan School of Medicine

This comprehensive examination of the drugs used to

Excellent. Good mixture of basic science with clinical
Excellent. Good mixture of basic science with clinical treat infectious diseases integrates information from the clinical sciences, pharmacology, biochemistry, molecular biology and microbiology—all sources of information for the study of chemotherapy. Details of the action, pharmacology and adverse effects of the antibacterial, antifungal, antiparasitic and antiviral drugs are provided. The emphasis is on an understanding of the mechanisms by which these drugs affect the organisms, and the biochemical and pathophysiological basis for toxicities, side effects and hypersensitivity reactions. In addition to presenting the basic pharmacology of each drug, considerable space is devoted to discussions of drug interactions, drug resistance, resistance transfer and principles of treatment.

This book evolved from an earlier, shorter text by Dr. Pratt, Fundamentals of Chemotherapy (Oxford, 1973), From reviews of that edition:

application."-Neil C. Moran, M.D., Emory University

"A good presentation of a vast amount of material. The emphasis on modes of action is especially commendable." - Ernest Bueding, M.D., The Johns Hopkins University School of Medicine

"It is an outstanding synthesis of the data that a keen teacher of pharmacology has found worth presenting to a class of keen medical students."—Hugues J.-P. Ryser, M.D., in The New England Journal of Medicine

"Dr. Pratt, writing throughout with great economy and clarity...has produced his own classic text."-Robert Wood in British Medical Journal

496 pp.: 65 illus.

cloth \$17.95

paper \$9.95

Prices and publication dates are subject to change.



