

CURRENT THERAPY - 1959

Latest Approved Methods of Treatment

For The Practicing Physician

© 1959, by W. B. SAUNDERS COMPANY. COPYRIGHT UNDER THE INTERNATIONAL COPYRIGHT UNION. All rights Reserved. This book is protected by copyright. No part of it may be duplicated or reproduced in any manner without written permission from the publisher. Made in the United States of America. Press of W. B. Saunders Company. LIBRARY OF CONGRESS CATALOG CARD NUMBER: 49-8328

Consulting Editors

GEORGE E. BURCH
M. EDWARD DAVIS
VINCENT J. DERBES
GARFIELD G. DUNCAN
HUGH J. JEWETT
CLARENCE S. LIVINGOOD
PERRIN H. LONG
H. HOUSTON MERRITT
WALTER L. PALMER
H. BART A. REIMANN
CYRUS C. STURGIS
ROBERT H. WILLIAMS

Edited by HOWARD F. CONN, M.D.

W. B. SAUNDERS COMPANY

Philadelphia & London

Consulting Editors

Cardiovascular Diseases

GEORGE E. BURCH, M.D., F.A.C.P.
Henderson Professor and Chairman, Department of Medicine, Tulane University School of Medicine, New Orleans, Louisiana.

Gynecology and Obstetrics

M. EDWARD DAVIS, M.D., F.A.C.S. Joseph Bolivar DeLee Professor of Obstetrics and Gynecology, and Chairman of the Department of Obstetrics and Gynecology, University of Chicago. Obstetrician in Chief, Chicago Lying-in Hospital, Chicago, Illinois.

Allergy

VINCENT J. DERBES, M.D., F.A.C.P. Professor of Medicine, Tulane University School of Medicine, New Orleans, Louisiana.

Metabolism and Nutrition

GARFIELD G. DUNCAN, M.D., C.M., F.A.C.P. Professor of Medicine, University of Pennsylvania. Director of Medical Divisions, Pennsylvania Hospital and The Benjamin Franklin Clinic, Philadelphia.

Diseases of the Urogenital Tract

HUGH J. JEWETT, M.D.

Associate Professor of Urology, The Johns
Hopkins University School of Medicine, Baltimore, Maryland.

Dermatology and Syphilology

CLARENCE S. LIVINGOOD, M.D.
Director of Dermatology Department, Henry
Ford Hospital, Detroit, Michigan.

Infectious Diseases

PERRIN HAMILTON LONG, M.D., F.R.C.P. Chairman of Department and Professor of Medicine, State University of New York College of Medicine, Brooklyn. Chief of Department of Medicine, Kings County Hospital Center, Brooklyn, New York.

Nervous and Mental Diseases

H. HOUSTON MERRITT, M.D. Director of the Service of Neurology, Neurological Institute, Presbyterian Hospital. Professor of Neurology, College of Physicians and Surgeons, Columbia University, New York City.

Gastroenterology

WALTER L. PALMER, M.D., Ph.D., F.A.C.P. Richard T. Crane Professor of Medicine, University of Chicago School of Medicine, Chicago, Illinois.

Diseases of the Respiratory System

HOBART A. REIMANN, M.D., F.A.C.P. Visiting Professor of Medicine, Shiraz Medical School. Chief of Medical Service, Nemazee Hospital, Shiraz, Iran.

Hematology

CYRUS C. STURGIS, M.D., F.A.C.P.
Professor of Internal Medicine, University of
Michigan Medical School, Ann Arbor.

Endocrinology

ROBERT H. WILLIAMS, M.D., F.A.C.P. Professor and Executive Officer of the Department of Medicine, School of Medicine, University of Washington, Seattle.

Consulting Editors

Cardiovascular Discases

GEORGE E BURCH, M.D., F.A.C.P.

Henderson Professor and Chairman, Depute ment of Medicine, Tulane University School of Medicine, New Orleans, Louissana.

Genecology and Obstetrics

M. EDWARD DAVIS M.D. FA.C.S.

Joseph Bolivar DeLea Professor of Obstetrics and Graecology, and Chairman of the Department of Obstetrics and Conecology, University of Cheego, Obstetrician in Chief, Chicago Lytog-in Hospital, Chicago, Illinois

Allergy

VINCENT I DERRES M.D. F.A.C.F.

Professor of Medicine, Tuliane University School of Medicine, New Orleans, Louisiana.

Metabolism and Nutrition

CARPIELD G. DUNCAN, M.D., C.M., F.A.C.P.

'Professor of Medicine; University of Pennsylvania, Director of Medical Divisions, Fennsylvania Hospital and The Benjamin Frank-

descrious Diseases.

SETHIN HAMILIEDA FOMO'N D'ERCE

Chairman of Department and Professor of Medicine, State University of New York College of Medicine, Brooklyn, Chief of Lispartment of Medicine, Kings County Horsetal Center, Brooklyn, New York.

Nervoys and Mental Discoues

HOUSTON MERRITT, M.D.

Director of the Service of Neurology, Neurological Institute Preshsterian Hospital Professor of Neurology, College of Physicians and Surgeous, Columbia University, New York City.

Gastrounterplogy

of a security of all money and

Richard T. Cruzo Professor of Medicine, University of Chicago School of Medicine, Chicago, Illinois

Dixerces of the Respiratory System

HOBART A REINIANN, MO. FAKLE

Visiting Professor of Medicine, Shirax Medical School, Chief of Medical Service, North-

PREFACE

Corporate pure (Corporate)

LABENCE S. LIVINGOOD, M.D.
Director of Dernardology Department, Henry

TO BERT H. WILLIAMS MAD, FACE

Professor and Executive Officer of the Department of Medicine, School of Medicine, University of Washington, Sentile. This volume marks the beginning of the second decade of publication of Current Therapy. For the past ten years through a series of annual editions this publication has brought to the practicing physician current and authoritative therapeutic procedures in concise and specific terms designed for ready application to the problem at hand. That this approach has been sound is attested to by the great popularity of the work with physicians throughout the world.

In response to suggestions by readers and authors, certain changes have been made from year to year in regard to the material presented, the list of authors, disease entities and certain desired additions.

In planning for the original edition (1949) the problem of giving adequate attention to the different schools of thought in the treatment of any specific disease was solved by publishing articles of two to four authors for each disease. By this means different opinions by qualified authors, certain changes have been made from physician was thus given the advantage of selecting the method he felt most suited for his use. With succeeding editions, however, it became apparent that in certain diseases treatment methods differed only slightly in any one year, that annual editions allow publication of significant changes without undue delay, and that the policy of rotation of topics among different authors adequately covers the problem of insuring that all schools of thought are represented. For these reasons more than one treatment method for a specific disease is now given only when major differences of opinion among authorities exist.

The policy of rotation of topics among authors was instituted at the request of readers who wished to have access to the treatment

methods of certain other recognized authorities and also at the request of many authors who felt that yearly revisions were too frequent for them to make worthwhile changes in their articles and desired to contribute after longer intervals. When the purpose of the book is considered it can be seen that the adoption of this policy was a wise move. By this means Current Therapy can keep pace with the rapidly changing therapeutic methods from all sections of the country and bring them in concise form in one volume to the busy practitioner.

To further increase the value of the book, tables of Normal Laboratory Values of Clinical Importance, a list of packaging information of all registered drugs mentioned in the volume and an extensive table of pediatric dosages have been added. The section on poisonings has been enlarged in an attempt to give in the space available more information on the care of patients exposed to the more common toxic agents. It is realized that only the more common poisons can be mentioned in this section; a complete list would require several large volumes. The toxic agents listed are those which in the opinion of the authors are of major importance and are those most often involved in situations requiring emergency treatment.

As in previous editions, the editor wishes to express his gratitude to the authors and consultants of this volume for their aid in making Current Therapy one of the most popular compendiums of treatment ever published. To them should go the major credit for its success. The editor also wishes to thank the staff of the W. B. Saunders Company for their wise guidance and continued interest in maintaining the consistent high standards of the work.

HOWARD F. CONN, M.D.

Thus volumes roughs the beginning of the second decade of publication of Correst Frorapy. For the past ten years through a series of annual editions this publication has scrown to the practicing physician current and authoritative therapeutic procedures in concise and specific terms designed for ready application to the problem at hand. That this approach has been sound is attested to by the great popularity of the world with obvectors throughout the world.

In response to suggestions by readers and authors, certain changes have been made from year in year in regard to the material presented, the list of authors, disease eptitics and certain desired additions.

In planning for the original edition (1948), problem of giving adequate attention to the different schools of thought in the treatment of our specific discuse was solved by publishing articles of two to four ordines for each discuse. By this means different opinions by qualified authors, certain changes have been made from authors, certain changes have been made from althoughten the advantage of se-

methods of certain other recognized authoris who and also at the request of many authors who left that yearly revisions were too frequent for them to make worthwhile changes in their articles and desired to contribute after longer forervals. When the purpose of the buok is contidered it can be seen that the adoption of this policy was a wise move, By this means that Therapy can keep pace with the rapidly changing therapeutic methods from all sections of the country and bring them to course form

To further nieress, the value of the hook, tables of Normal Laboratory Values of Clinical Importance, a list of packaging information of all registered drugs mentlaned in the volume and an extensive table of pediatric drauges have been added. The secretary on passenings has been chlarged in an attempt to give in the space available more information on the care of patients exposed to the more common trust angelts. It is realized that each the more example poisons on the more example poisons can be mentioned in this section, a complete can be mentioned in this section, a complete

CONTRIBUTORS

ing that all schools of thought are represented. For these resigns more than one freatment method for a specific discounts now given only when major differences of appears among authorities exist.

The policy of retition of topics around our thors was inclined at the request of readous or wished to have access to the to-atment

Current Therapy one of the most popular compendances of teachests ever published. To show should go the major credit for its success. The editor also wishes to thank the stall of the W. B. Saunders Company for their wise guidance and continued interest in measuring the consistent life is standards of the work.

Hower F Cax M.D.

WILLIAM E. ABBOTT; M.D., F.A.C.S. Associate Professor, Department of Surgery, Western Reserve University School of Medicine. Associate

Professor and Head Department of Psychiatry, Uniwirstly of Utah College of Madicine, Chief of Pachiatry, Salt Luke Ceneral Hospital; Consultant to Byednings, Veterans Administration Hospital, Fort

Surgeon, Department of Surgery, University Hospitals of Cleveland, Cleveland, Ohio.

JOHN M. ADAMS, M.D., Ph.D. Professor of Pediatrics and Chairman, Department of Pediatrics, University of California School of Medicine, Los Angeles, California.

JOHN ADRIANI, M.D.

Professor of Surgery, Tulane University School of Medicine. Clinical Professor of Surgery and Pharmacology, Louisiana State University; Director, Department of Anesthesiology, Charity Hospital of Louisiana at New Orleans.

JERRY K. AIKAWA, M.D.

Assistant Professor of Medicine, University of Colorado School of Medicine. Attending Staff, Colorado General Hospital, Denver.

LEO ALEXANDER, M.D.

Clinical Instructor in Psychiatry, Tufts University Medical School. Director, Neurobiologic Unit, Division of Psychiatric Research, Boston State Hospital, Boston, Massachusetts.

- AFRÂNIO DO AMARAL, M.D., D.P.H. (Trop. Med.) Professor of Tropical Medicine (ret.), Escola Paulista de Medicina. Director, Instituto Butantan, S. Paulo, Brazil; Consultant, World Health Organization, Geneva, Switzerland.
- JAY M. ARENA, M.D., F.A.A.P. Professor of Pediatrics, Duke University Medical Center, Durham, North Carolina.
- THOMAS G. ARGYROS, M.D. Assistant Attending Physician, Lenox Hill Hospital, New York City.

JOHN DAVID ARNOLD, M.D.

Associate Professor of Medicine, University of Chicago School of Medicine. Attending Physician, Albert Merritt Billings Hospital, Chicago, Illinois.

- CURTIS P. ARTZ, M.S. (Surg.), M.D., F.A.C.S. Associate Professor of Surgery, University of Mississippi School of Medicine. Attending Surgeon, University Hospital; Consultant in Surgery, Veterans Administration Center, Jackson, Mississippi.
- FRANK J. AYD, JR., M.D. Chief of Psychiatry, Franklin Square Hospital, Baltimore, Maryland.

RUDOLPH L. BAER, M.D.

Professor of Clinical Dermatology and Syphilology, New York University Post Graduate Medical School. Attending Physician and Associate Director, Department of Dermatology and Syphilology, University Hospital, New York City. G. DOUGLAS BALDRIDGE, M.D. Assistant Clinical Professor of Medicine (Dermatology), University of Southern California Medical School. Attending Physician, Los Angeles County General Hospital and St. John's Hospital, Los An-

geles, California. ALVAN L. BARACH, M.D.

Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons. Attending Physician in Medicine, Columbia University College of Physicians and Surgeons and Presbyterian Hospital, New York City.

WILLIAM PHILIP BARBA, II, M.D.

Associate in Pediatrics, Temple University School of Medicine. Chief of Pediatrics, Roxborough Memorial Hospital; Physician, Germantown Hospital and Dis-pensary, St. Christopher's Hospital, Philadelphia, Pennsylvania.

J. ARNOLD BARGEN, M.D., F.A.C.P. Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota. Consultant, Section of Medicine, Mayo Clinic, Rochester, Minnesota.

RANDOLPH BATSON, M.D.

Associate Professor of Pediatrics and Director, Vanderbilt Poliomyelitis Respiratory and Rehabilitation Center, Vanderbilt University School of Medicine, Nashville, Tennessee.

DANIEL WINSTON BEACHAM, M.D., F.A.C.S., F.A.C.O.G.

Assistant Professor of Clinical Obstetrics and Gynecology, Tulane University School of Medicine. Visiting Surgeon, Department of Obstetrics and Gynecology, Charity Hospital of Louisiana at New Orleans; Active Staff, Department of Obstetrics and Cynecology, Southern Baptist Hospital; Courtesy Staff, Hotel Dieu Sisters' Hospital, New Orleans. Louisiana.

WOODARD DAVIS BEACHAM, M.D., F.A.C.S., F.A.C.O.G.

Professor of Clinical Obstetrics and Gynecology, Tulane University School of Medicine, Senior Visiting Surgeon, Department of Obstetrics and Gynecology, Charity Hospital of Louisiana at New Orleans; Active Staff, Department of Obstetrics and Gynecology, Southern Baptist Hospital; Consultant, Hotel Dieu Sisters' Hospital, New Orleans, Louisiana.

JOHN C. BECK, M.Sc., M.D.C.M., F.R.C.P.(C)
Associate Professor of Medicine, McGill University.
Associate Physician and Chief of Endocrine-Metabolic Unit, Royal Victoria Hospital, Montreal, Canada.

S. WILLIAM BECKER, M.S., M.D. Clinical Professor of Medicine (Dermatology), University of Southern California School of Medicine, Los Angeles. Chief, Section of Dermatology, Veterans Administration Hospital, Long Beach, California.

CHARLES E. BENDER, M.D.
Attending Physician, David C. Hall Health Center, University of Washington, Seattle.

EDWARD BENSON BENEDICT, M.D.

Assistant Clinical Professor of Surgery, Harvard Medical School, Endoscopist, Massachusetts General Hospital; Consulting Endoscopist, Massachusetts Eye and Ear Infirmary; Consultant in Endoscopy, Faulkner Hospital, Mount Auburn Hospital, Palmer Memorial Hospital, Joseph H. Pratt Diagnostic Hospital; Consultant in Gastroenterology, Newton-Wellesley Hospital, Boston, Massachusetts.

JOHN A. BENJAMIN, M.D.

Clinical Assistant Professor of Urological Surgery, University of Rochester School of Medicine and Dentistry. Associate Surgeon, Strong Memorial Hospital, Rochester, New York.

FRANK H. BETHELL, M.D., F.A.C.P.

Professor of Internal Medicine, University of Michigan. Director, Simpson Memorial Institute, University of Michigan, Ann Arbor, Michigan.

DONALD J. BIRMINGHAM, M.D.

Assistant Professor of Dermatology, University of Cincinnati College of Medicine. Attending Dermatologist, Department of Dermatology, and Clinician in Dermatology, Outpatient Department, Cincinnati General Hospital; Chief Dermatologist, Occupational Health Program, Public Health Service Bureau of State Services, U.S. Department of Health, Education, and Welfare, Cincinnati, Ohio.

RONALD C. BISHOP, M.D.

Associate Professor of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan.

GROSVENOR W. BISSELL, M.D., F.A.C.P.

Associate Professor of Medicine, University of Buffalo School of Medicine. Chief of Medical Service, Veterans Administration Hospital. Attending Physician in Medicine and Consultant in Endocrine Clinic, E. J. Meyer Memorial Hospital, Buffalo, New York.

SAMUEL M. BLUEFARB, M.D., F.A.C.P. Associate Professor of Dermatology, Northwestern University Medical School. Attending Dermatologist and Chairman, Department of Dermatology, Cook County Hospital; Senior Attending Dermatologist, Chicago Wesley Memorial Hospital and Research Veterans Hospital, Chicago, Illinois.

EDWIN B. BOLDREY, M.A., M.Sc., M.D., F.A.C.S. Associate Professor of Neurological Surgery, University of California School of Medicine. Consulting Neurological Surgeon, Shriners' Hospital for Crippled Children, Fort Miley Veterans Administration Hospital, May T. Morrison Rehabilitation Center; Attending Neurological Surgeon, San Francisco Hospital, San Francisco, California. M. MOMB . O. MHOI

WILLIAM L. BRADFORD, M.D.

Professor of Pediatrics and Chairman of Department, University of Rochester School of Medicine and Dentistry. Pediatrician-in-Chief, Strong Memorial and Rochester Municipal Hospitals, Rochester, New York.

HENRY DEAN BRAINERD, M.D.

Professor of Medicine and Chairman, Department of Medicine, University of California School of Medicine, San Francisco, California.

C. H. HARDIN BRANCH, M.D., F.A.C.P.

Professor and Head, Department of Psychiatry, University of Utah College of Medicine. Chief of Psychiatry, Salt Lake General Hospital; Consultant in Psychiatry, Veterans Administration Hospital, Fort Douglas, Salt Lake City, Utah.

ISIDOR C. BRILL, M.D., F.A.C.P., F.A.C.C.

Associate Clinical Professor of Medicine, University of Oregon School of Medicine. Attending Physician, St. Vincent's, Multnomah and Holladay Park Hospitals, Portland, Oregon.

ETHAN ALLAN BROWN, M.D., M.R.C.S. (Enc.), L.R.C.P., (LOND.) Editor, Annals of Allergy.

WILLIAM J. BROWN, M.D., M.P.H.

Chief, Venereal Disease Branch, Communicable Disease Center, United States Public Health Service, Atlanta, Georgia.

JOHN C. BURCH, M.D., F.A.C.S.

Professor of Gynecology, Vanderbilt University School of Medicine. Attending Gynecologist, Vanderbilt Hospital, Mid-State Baptist Hospital and St. Thomas Hospital, Nashville, Tennessee.

HERBERT A. BURKE, JR., M.D.

Instructor in Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee.

ALLAN D. CALLOW, M.D., Ph.D., F.A.C.S.

Associate Professor of Surgery, Tufts University School of Medicine. Surgeon, New England Center Hospital; Attending Surgeon, Boston Floating Hospital; Assistant Surgeon, Boston Dispensary, Boston, Massachusetts.

NICHOLAS J. CAPOS, M.D., F.A.C.S.

Associate in Surgery, Northwestern University Medical School. Attending Surgeon, Columbus Hospital and Cook County Hospital, Chicago, Illinois.

ROBERT EDWARD CASSIDY, M.D.

Instructor in Obstetrics and Gynecology, University of Miami School of Medicine. Visiting Surgeon, Jackson Memorial Hospital, Miami, Florida.

ROBERT L. CHALFANT, M.D.

Instructor in Obstetrics and Gynecology, Vanderbilt University School of Medicine. Attending Obstetrician and Gynecologist, Vanderbilt Hospital, Mid-State Baptist Hospital, St. Thomas Hospital; Chief of Obstetrics and Gynecology Service, Nashville General Hospital, Nashville, Tennessee.

DONALD A. CHARNOCK, M.D., F.A.C.S.

Professor of Surgery (Urology) and Head of Division of Urology, University of Southern California School of Medicine. Chief, Division of Urology, Children's Hospital; Senior Attending Urologist, Los Angeles County General Hospital, Los Angeles, California.

AMOZ I. CHERNOFF, M.D. MARA J MELOCUR

Professor of Research, University of Tennessee Memorial Research Hospital, Knoxville. Attending Physician, Duke Hospital; Chief of Hematology Section, Veterans Administration Hospital, Durham, North Carolina.

DAVID HALE CLEMENT, M.D.

Associate Clinical Professor of Pediatrics, Yale University School of Medicine. Attending Pediatrician, Grace-New Haven Community Hospital, New Haven, Connecticut.

JOHN T. COLE, M.D.

Assistant Professor of Obstetrics and Gynecology, Cornell University Medical College. Attending Obstetrician and Gynecologist, The New York Lying-in Hospital, Doctors' Hospital, Roosevelt Hospital, New York City; Glen Cove Hospital, Glen Cove, New York.

CONRAD G. COLLINS, M.S., M.D., F.A.C.S.

Professor and Chairman of Department of Obstetrics and Gynecology, Tulane University School of Medicine. Obstetrician and Gynecologist-in-Chief, Tulane Unit, Charity Hospital of Louisiana at New Orleans; Visiting Staff, Southern Baptist and Mercy Hospitals; Consultant, Veterans Hospital, New Orleans, Loui-

KENDALL B. CORBIN, M.D.

Professor of Neurology, Mayo Foundation, Graduate School, University of Minnesota. Consultant, Section of Neurology, Mayo Clinic, Rochester, Minnesota.

THEODORE CORNBLEET M.D., Ph.D.

Clinical Professor of Dermatology, University of Illinois College of Medicine. Attending Dermatologist, Cook County Hospital; Consulting Dermatologist, Mt. Sinai Hospital, Chicago, Illinois.

MAURICE J. COSTELLO, M.D., Sc.D. (Hon.), F.A.C.P.

Professor of Clinical Dermatology and Syphilology, New York University-Bellevue Medical Center, Post-Graduate Division. Attending Dermatologist, Bellevue, Lenox Hill, Misericordia and St. Clare's Hospitals, New York City.

K. R. CRISPELL, M.D. M. MOSTAO CLISTERIA Professor and Director of Department of Medicine, New York Medical College. Physician-in-Chief, Flower and Fifth Avenue Hospitals, Metropolitan Hospital, New York City.

WILLIAM ARTHUR CULL, M.D.

Assistant Professor of Anesthesiology, Western Reserve University School of Medicine. Assistant Anesthesiologist, Department of Surgery (Anesthesia), and Associate Anesthesiologist, Department of Obstetrics and Gynecology (Anesthesia), University Hospitals of Cleveland; Director of Anesthesia, Mac-Donald House (Obstetrics and Gynecology), University Hospitals, Cleveland, Ohio.

DAVID A. CULP, M.D., F.A.C.S.

Associate Professor of Urology, University of Iowa. Attending Urologist, University Hospitals, Iowa City, Iowa.

EDWARD C. CURNEN, M.D.

Professor of Pediatrics, University of North Carolina School of Medicine. Chief of Pediatric Service, North Carolina Memorial Hospital, Chapel Hill.

WILLIAM CURTH, M.D.

Associate in Dermatology, College of Physicians and Surgeons, Columbia University. Attending Dermatologist, Vanderbilt Clinic, Dermatology Service of Presbyterian Hospital, New York City.

GEORGE H. CURTIS, M.D.

Associate Professor of Dermatology, The Frank E. Bunts Educational Institute. Staff Member, Department of Dermatology, The Cleveland Clinic Foundation, Cleveland, Ohio.

C. W. DAESCHNER, JR., M.D.

Associate Professor of Pediatrics, Baylor University College of Medicine. Physician-in-Charge, In-Patient Pediatric Service, Jefferson Davis City-County Hospital, Houston, Texas.

DOUGLAS T. DAVIDSON, JR., M.D.

Assistant in Neurology, University of Pennsylvania School of Medicine, Assistant Neurologist, Children's Hospital of Philadelphia; Director of Research, Elwyn Training School, Elwyn, Pennsylvania.

EDWIN DAVIS, M.D.

Professor of Urology Emeritus, University of Nebraska College of Medicine, Omaha.

GEOFFREY DEAN, M.D., M.R.C.P. (Lond.) Neurological Consultant, Overseas Panel of the Multiple Sclerosis Society, New York. Senior Honorary Physician, Eastern Cape Provincial Hospital, Port Elizabeth, South Africa.

RUSSELL N. DEJONG, M.D.

Professor of Neurology, University of Michigan Medical School. Neurologist, University Hospital, Ann Arbor, Michigan.

RICHARD L. DOBSON, M.D.

Assistant Professor of Medicine (Dermatology), University of North Carolina School of Medicine. Attending Dermatologist, North Carolina Memorial Hospital, Chapel Hill.

ANTHONY N. DOMONKOS, M.D.

Assistant Professor of Dermatology, College of Physicians and Surgeons, Columbia University. Assistant Attending Dermatologist, Presbyterian Hospital, New York City.

JOHN C. DONOVAN, M.D.

Assistant Professor, University of Rochester School of Medicine and Dentistry. Attending Obstetrician and Gynecologist, Strong Memorial and Rochester Municipal Hospitals, Rochester, New York.

R. GORDON DOUGLAS, M.D.

Professor of Obstetrics and Gynecology, Cornell University Medical College. Obstetrician and Gynecologist-in-Chief, New York Hospital, New York City.

GARFIELD G. DUNCAN, M.D., C.M.

Professor of Medicine, University of Pennsylvania. Director of Medical Divisions, Pennsylvania Hospital and the Benjamin Franklin Clinic, Philadelphia.

RICHARD DALE ECKHARDT, M.D., F.A.C.P. Clinical Associate Professor of Medicine, State Uni-

versity of Iowa College of Medicine. Chief, Medical Service, Veterans Administration Hospital, Iowa City, Iowa.

C. WESLEY EISELE, M.S., M.D., F.A.C.P. Associate Professor of Medicine and Assistant Dean for Postgraduate Medical Education, University of Colorado School of Medicine. Staff, Colorado General and Denver General Hospitals; Consultant, Fitzsimons Army Hospital, Lowry Air Force Base Hos-

and Denver General Hospitals; Consultant, Fitzsimons Army Hospital, Lowry Air Force Base Hospital, Denver; Consultant, Veterans Administration Hospitals, Denver and Grand Junction, Colorado; Consultant, Veterans Administration Hospital, Albuquerque, and Los Alamos Medical Center, Los Alamos, New Mexico.

RICHARD CANNON ELEY, M.D.

Assistant Clinical Professor of Pediatrics, Children's Hospital, Harvard Medical School. Chief of Isolation Service, Children's Hospital; Director of Post-Graduate Training, Children's Hospital; Chief of Pediatric Service, Mt. Auburn Hospital, Cambridge; Chief Consultant of Pediatric Service, U.S. Naval Hospital, Chelsea; Pediatric Consultant, Cape Cod Hospital; Lowell General Hospital; Waltham Hospital; Frisbee Memorial Hospital, Rochester, N.H.; Huggins Hospital, Wolfeboro, N.H.; Taunton Memorial Hospital, Massachusetts Memorial Hospital; Boston Lying-In Hospital; Cushing General Hospital; Milton Hospital; Haynes Memorial Hospital; South Huntington Avenue Veterans Hospital, Boston, Massachusetts.

JOSEPH A. ELLIOTT, Jr., M.S., M.D.
Attending Dermatologist, Charlotte Memorial Hospital; Active Staff, Mercy Hospital; Consulting Staff, Presbyterian Hospital, Charlotte, North Carolina.

MARK ALLEN EVERETT, M.D.
Instructor, Department of Dermatology, University of Oklahoma School of Medicine. Consultant in Dermatology, United States Air Force; Attending Dermatologist, University of Oklahoma Hospitals, St. Anthony's, Mercy and Wesley Hospitals, Oklahoma City, Oklahoma.

HARRY A. FELDMAN, M.D.

Professor and Chairman, Department of Preventive
Medicine, State University of New York, Upstate
Medical Center Attending Physician University and

Medical Center. Attending Physician, University and City Hospitals; Associate Attending Physician, Memorial Hospital; Consultant Physician, Veterans Administration Hospital, Syracuse, New York.

JAMES HENRY FERGUSON, M.D.

Professor and Chairman of Obstetrics-Gynecology, University of Miami School of Medicine. Chief of Obstetrics-Gynecology, Jackson Memorial Hospital, Miami, Florida.

KNOX H. FINLEY, M.D.

Associate Professor of Medicine (Neurology), Stanford University Medical School, San Francisco, California.

RUBIN H. FLOCKS, M.D.

Professor and Head of Urology, University of Iowa College of Medicine. Urologist-in-Chief, University Hospitals, Iowa City, Iowa.

M. ALLEN FORBES, Jr., M.D. Assistant Professor of Dermatology, University of Texas Medical School, Galveston, University of Texas Health Center, Brackenridge Hospital and St. David's Hospital, Austin, Texas. JOHN P. FOX, M.D., Ph.D., M.P.H., F.A.C.P.M.
William Hamilton Watkins Professor of Epidemiology, and Director, Division of Graduate Public Health, School of Medicine, Tulane University. Senior Visiting Physician, Charity Hospital, New Orleans, Louisiana.

CHARLES E. FRIEDGOOD, M.D., M.Sc.
Assistant Professor of Surgery, State University of
New York. Attending in Thoracic and Cardiovascular
Surgery, Unity, Swedish and Coney Island Hospitals,
Brooklyn, New York.

WALTER B. FROMMEYER, Jr., M.D., F.A.C.P.
Professor of Internal Medicine, University of Alabama College of Medicine. Chief, Medical Service,
University of Alabama, University Hospital and Hillman Clinic, Birmingham, Alabama.

J. LESTER GABRILOVE, M.D., F.A.C.P. Clinical Assistant Professor of Medicine, State University of New York College of Medicine. Assistant Attending Physician, The Mount Sinai Hospital, New York City.

GEORGE DAVIS GAMMON, M.D., F.A.C.P.
Professor of Clinical Neurology and Chairman of
Department of Neurology, University of Pennsylvania School of Medicine. Neurologist to Hospital of
the University of Pennsylvania and The Children's
Hospital, Philadelphia.

FRANK H. GARDNER, B.S., M.D.
Assistant Professor of Medicine, Harvard Medical
School. Senior Associate in Medicine, Peter Bent
Brigham Hospital, Boston, Massachusetts.

LYTT I. GARDNER, M.D.
Professor of Pediatrics, State University of New
York, Upstate Medical Center. Attending Pediatrician,
Syracuse Memorial Hospital, Syracuse, New York.

WARFIELD GARSON, M.D., M.P.H., F.A.C.P.M., F.A.P.H.A.

Research Professor and Head of Department of Experimental Medicine, School of Public Health, University of North Carolina. Director, Venereal Disease Experimental Laboratory, Venereal Disease Branch,

Communicable Disease Center, United States Public Health Service, Chapel Hill, North Carolina.

JOHN H. GIBBON, Jr., M.D., F.A.C.S.
Samuel D. Gross Professor of Surgery and Head of the Department of Surgery, The Jefferson Medical College. Attending Surgeon, The Jefferson Medical

College Hospital; Consulting Surgeon, The Pennsyl-

HAROLD S. GINSBERG, M.D.

Associate Professor of Preventive Medicine and Assistant Professor of Medicine, Western Reserve University School of Medicine. Assistant Physician, University Hospitals, Cleveland, Ohio.

vania Hospital, Philadelphia, Pennsylvania.

GILBERT H. GLASER, M.D., Med.Sc.D.

Associate Professor of Neurology, Yale University
School of Medicine. Chief of Section of Neurology,
Yale-New Haven Medical Center; Consultant Neurologist, U.S. Veterans Hospital, West Haven, Connecticut.

LEON GOLDMAN, M.D.

Professor of Dermatology, University of Cincinnati College of Medicine. Director of Dermatology, Cinr cinnati General Hospital and Children's Hospital, Cincinnati, Ohio.

MARTIN G. GOLDNER, M.D., F.A.C.P. Clinical Professor of Medicine, State University of New York, College of Medicine, Director of Medicine, Jewish Chronic Disease Hospital; Attending Physician, Kings County Hospital, Brooklyn, New

JOSE OLIVER GONZALEZ, Ph.D. Professor of Parasitology, University of Puerto Rico School of Medicine. Parasitologist, San Juan City Hospital; Consultant, Presbyterian Hospital, U.S. Veterans Hospital, State Penitentiary, San Juan, Puerto Rico.

JOHN F. GOODWIN, M.D., F.R.C.P. Lecturer in Medicine, Postgraduate Medical School of London. Physician, Hammersmith Hospital, London, England.

WALLACE GRAHAM, M.D., F.R.C.P.(C), F.R.C.P. (LOND.) Assistant Professor of Medicine, Faculty of Medicine, University of Toronto. Attending Physician, Toronto General Hospital; Consultant and Chief of Arthritis Service, Sunnybrook Veterans Hospital, Toronto, Ontario, Canada.

ROBERT B. GREENBLATT, M.D., C.M. Professor of Endocrinology, Medical College of Georgia. Chief, Obstetrics and Gynecology Staff, University Hospital, Augusta, Georgia.

LAURENCE F. GREENE, M.D., Ph.D. (UROL.)
Associate Professor of Urology, Mayo Foundation,
Graduate School, University of Minnesota, Consultant, Section of Urology, Mayo Clinic, Rochester,

MONTE A. GREER, M.D. Associate Professor of Medicine; Head, Division of Endocrinology, University of Oregon Medical School, Portland, Oregon.

A. FLETCHER HALL, M.D. Associate Clinical Professor of Medicine (Dermatology and Syphilology), University of Southern California School of Medicine. Senior Attending Staff (Dermatology), Los Angeles County General Hospital, Los Angeles; Senior Staff, Santa Monica Hospital, Santa Monica, California.

GEORGE W. HAMBRICK, Jr., M.D. Assistant Professor of Dermatology, University of Pennsylvania School of Medicine. Chief of Clinic, Hospital of the University of Pennsylvania; Assistant Chief, Dermatology Service, Philadelphia General Hospital, Philadelphia, Pennsylvania.

MORTON HAMBURGER, M.D. Professor of Medicine, University of Cincinnati College of Medicine. Attending Physician, Cincinnati General and Cincinnati Jewish Hospitals; Consultant, Veterans Administration Hospital and Bethesda Hospital, Cincinnati, Ohio.

EUGENE A. HAND, M.D. St. Mary's Hospital, Saginaw, Michigan. JOHN R. HAND, M.D. Associate Clinical Professor of Urology, University of Oregon Medical School. Attending Urologist, Multnomah County Hospital, Doernbecher Memorial

Hospital for Children; Staff, Advisor to Urology Department and Chairman of Tumor Clinic, St. Vincent Hospital, Portland, Oregon.

HENRY N. HARKINS, M.D., Ph.D., F.A.C.S. Professor of Surgery and Executive Officer, Department of Surgery, University of Washington School of Medicine, Seattle. Surgeon-in-Chief, King County and University Hospitals; Chief Surgical Consultant, Seattle V.A. Hospital, Consultant in Surgery, Madigan Army Hospital, Tacoma, Washington.

E. RICHARD HARRELL, M.D. Associate Professor of Dermatology, University of Michigan Medical School. Attending Dermatologist, Wayne County General Hospital, Eloise; Consultant, V.A. Hospital, Ann Arbor, Michigan.

GEORGE T. HARRELL, M.D. Professor of Internal Medicine and Dean, University of Florida College of Medicine. Chief of Staff, Teaching Hospital and Clinics, University of Florida, Gainesville.

WILLIAM J. HARRINGTON, M.D., F.A.C.P. Associate Professor of Medicine, Washington University School of Medicine, St. Louis, Missouri.

W. PROCTOR HARVEY, M.D. Associate Professor of Medicine and Director of Heart Station, Georgetown University Medical Center. Consultant in Cardiology, Walter Reed Army Hospital, Washington, D.C.; U.S. Naval Hospital and National Heart Institute, Bethesda, Maryland.

NORRIS J. HECKEL, M.D., F.A.C.S. Clinical Professor of Urology, Department of Surgery, University of Illinois College of Medicine. Chairman, Department of Urology, Presbyterian-St. Luke's Hospital; Attending Urologist, Ravenswood Hospital, Chicago, Illinois.

HERMAN K. HELLERSTEIN, M.D. Assistant Professor of Medicine, Western Reserve University. Director, Work Classification Clinic of The Cleveland Area Heart Society; Assistant Physician, University Hospitals of Cleveland, Ohio.

LOWELL L. HENDERSON, M.D., M.S. (MED.) Instructor in Medicine, Mayo Foundation, Graduate School, University of Minnesota. Consultant, Section of Medicine, Mayo Clinic, Rochester, Minnesota.

WALTER C. HEROLD, M.D. Colorado Springs, Colorado.

LAWRENCE L. HESTER, M.D., F.A.C.S. Professor and Chairman, Department of Obstetrics and Gynecology, Medical College of South Carolina and Medical College Hospital. Obstetrician and Gynecologist, Roper Hospital, Charleston, South Carolina.

ROBERT ARTHUR HETTIG, M.D. Professor of Internal Medicine, Baylor University College of Medicine, Chief, In-Patient Medical Service, Jefferson Davis Hospital; Attending Physician, Methodist Hospital; Consultant Hematologist, VetContributors

erans A. ministration Hospital; Chief of Hematology Section, Texas Children's Hospital; Consultant in Internal Medicine, Hermann Hospital and St. Joseph's Infirmary, Houston; Consultant Hematologist, Lackland Air Force Base Hospital, Lackland, Texas.

ALBERT HEYMAN, M.D., F.A.C.P.
Associate Professor of Medicine, Duke University
School of Medicine. Chief of Neurology Section, Veterans Administration Hospital, Durham, North Carolina.

JAMES F. HILDEBRAND, M.D. alling and additional

Medical Staff, Memorial and St. Nicholas Hospitals, Sheboygan Clinic, Sheboygan, Wisconsin.

THOMAS F. HINES, M.D.

Associate Professor of Medicine (Chief, Physical Medicine), Yale University School of Medicine, New Haven. Director of Physical Medicine, Grace-New Haven Community Hospital; Consultant in Physical Medicine, Gaylord Farm, Wallingford, Waterbury Hospital, Waterbury, Middlesex Hospital, Middletown, Charlotte Hungerford Hospital, Torrington, State Veterans Home and Hospital, Rocky Hill, Connecticut.

ANDREW HINGSON, M.D., F.A.C.A., ROBERT F.I.C.A., F.I.C.S., F.F.A.R.C.S. (Eng.) Professor of Anesthesiology, Western Reserve University School of Medicine. Director of Anesthesiology, University Hospitals, Cleveland, Ohio.

FRANK HINMAN, JR., M.D.

Associate Clinical Professor of Urology, University
of California Medical Center. Urologist-in-Chief, Children's Hospital; Active Staff, Franklin Hospital; Courtesy Staff, Stanford University Hospital; Consultant, San Francisco County Hospital, California.

H. CORWIN HINSHAW, M.D., Ph.D.

Clinical Professor of Medicine, Stanford University School of Medicine, San Francisco, California.

JOSEPH M. HITCH, M.D., M.S.

Associate Professor of Medicine (Dermatology), University of North Carolina School of Medicine, Chapel Hill. Chief of Service, Dermatology, Rex Hospital and St. Agnes Hospital, Raleigh, North Carolina.

CLARENCE V. HODGES, M.D.

Professor of Surgery and Head of Division of Urology, University of Oregon Medical School. Attending Urologist, Emanuel Hospital, Portland, Oregon.

PAUL FREDERICK ADAM HOEFER, M.A., M.D., PH.D.

Associate Professor of Neurology, Columbia University College of Physicians and Surgeons. Attending Neurologist, Presbyterian Hospital and Vanderbilt Clinic, New York City. 130 1317311 1 304311WA.1

WILLIAM D. HOLDEN, M.D., F.A.C.S.

Oliver H. Payne Professor of Surgery and Director of Department, Western Reserve University School of Medicine. Director of Surgery, University Hospitals of Cleveland, Ohio.

JOSEPH LEE HOLLANDER, M.D., F.A.C.P.

Associate Professor of Medicine, School of Medicine and Graduate School of Medicine, University of Pennsylvania. Chief of Arthritis Section, University

Hospital: Chief of Division of Rheumatology, Graduate Hospital; Consultant in Rheumatology, Children's Hospital, Philadelphia.

MALCOLM A. HOLLIDAY, M.D.

Assistant Professor of Pediatrics, University of Pittsburgh Medical School. Children's Hospital of Pittsburgh, Pittsburgh, Pennsylvania.

GORDON D. HOOPLE, M.D.

Professor Emeritus of Otolaryngology, Syracuse University Medical College. Otolaryngologist, Syracuse Memorial, Syracuse University and Syracuse City Hospitals, Syracuse, New York. WOOD HAVIJO HEAL

MARTIN A. HOWARD, M.D., F.A.C.S.

Assistant Professor of Surgery, University of Oregon Medical School. Attending Staff, University of Oregon Medical School Hospital; Chairman, Credentials Committee, Good Samaritan Hospital; St. Vincent Hospital, Portland, Oregon.

ARCHIBALD L. HOYNE, M.D., F.A.A.P., F.A.C.P. Professor of Pediatrics, Chicago Medical School. Chief, Attending Staff, Cook County Contagious Disease Hospital, Chicago, Illinois.

G. WILSON HUNTER, M.D.

Chief of Staff and Chairman of Department of Obstetrics and Gynecology, St. Luke's Hospital, Fargo, North Dakota.

ROBERT J. IMRIE, M.D.

Clinical Assistant, Department of Paediatrics, and Director, Poison Information Centre, Hospital for Sick Children, Toronto, Ontario, Canada.

ROBERT L. JACKSON, M.D.

Professor and Chairman of Department of Pediatrics, University of Missouri School of Medicine. Chief of Pediatrics Service, University of Missouri Hospital, Columbia.

LEWIS E. JANUARY, M.D., F.A.C.P.

Professor of Internal Medicine, State University of Iowa College of Medicine. Attending Staff, Veterans Hospital, Iowa City, Iowa.

DALTON JENKINS, M.D.

Associate Professor of Medicine, University of Colorado School of Medicine, Denver.

ROBERT E. JENSEN, M.D., F.A.C.S.

Active Staff, St. Luke's, Deaconess and Sacred Heart Hospitals, Spokane; Consultant in Urology, U.S. Veterans Hospital, Spokane, and Eastern State Hospital, Medical Lake, Washington.

OTIS FIELD JILLSON, M.D. ADIRBIMAN W EDITORO

Assistant Professor of Dermatology, Dartmouth Medical School. Staff Dermatologist, Hitchcock Clinic and Mary Hitchcock Memorial Hospital, Hanover, New Hampshire.

S. HARRIS JOHNSON, III, M.D., M.A. (Hon.), F.A.C.S.

Assistant Professor of Urology, University of Pittsburgh School of Medicine. Senior Urologist, Western Pennsylvania Hospital, Industrial Home for Crippled Children and Pittsburgh Diagnostic Clinic; Associate Urologist, Children's Hospital, Pittsburgh; Consultant Urologist, U.S. Veterans Hospitals, Pittsburgh, and Veterans Hospital, Aspinwall, Pennsylvania.

WILLIAM S. JORDAN, Jr., M.D.

Professor of Preventive Medicine and Professor of
Medicine, University of Virginia School of Medicine.
Physician, University of Virginia Hospital, Charlottesville, Virginia.

FRANK T. JOYCE, M.D., F.A.C.P., F.A.A.A.
Associate Clinical Professor of Medicine, University
of Colorado School of Medicine. Director of Allergy
Clinic, Colorado General Hospital (University of
Colorado School of Medicine); Attending Allergist,
Fitzsimons General Hospital; Active Staff, Children's,
St. Luke's, Presbyterian Hospitals, Denver, Colorado.

NOMAN B. KANOF, M.D., M.ScD.

Associate Professor of Clinical Dermatology and Syphilology, New York University Post-Graduate Medical School. Associate Attending in Dermatology and Syphilology, New York University-Bellevue Medical Center, New York City.

DAVID A. KARNOFSKY, M.D.

Associate Professor of Medicine, Cornell University
Medical College. Associate Attending Physician,
Chemotherapy Service, Department of Medicine,
Memorial and James Ewing Hospitals, New York
City.

SOL KATZ, M.D., F.A.C.P.

Associate Professor of Medicine, Georgetown University School of Medicine. Chief Medical Officer, Pulmonary Disease Division, D.C. General Hospital; Consultant in Chest Diseases, National Institutes of Health, Mt. Alto Veterans Hospital, Children's Hospital, Washington, D.C., and Baker Veterans Hospital, Martinsburg, West Virginia.

JOHN V. KELLY, M.D.
Assistant Professor, University of California School of Medicine, Los Angeles. Attending Staff, University of California Medical Center, Harbor General, Los Angeles County and St. John's Hospitals, Los Angeles, California.

JOHN R. KELSEY, Jr., M.D.
Assistant Professor of Clinical Medicine, Baylor University College of Medicine. Attending Physician in Gastroenterology, Veterans Administration Hospital; Assistant Physician (Active Staff), Methodist Hospital; Associate, Section of Internal Medicine, St. Luke's Episcopal Hospital; Associate Physician, Jefferson Davis Hospital; Consultant in Internal Medicine, Texas Children's Hospital, Houston, Texas.

C. HENRY KEMPE, M.D. Professor and Head, Department of Pediatrics, University of Colorado Medical Center, Denver, Colorado.

ROBERT R. KIERLAND, M.D., M.S. (DERM. AND SYPH.)

Professor of Dermatology and Syphilology, Mayo Foundation, Graduate School, University of Minnesota. Consultant, Section of Dermatology, Mayo Clinic, Rochester, Minnesota.

WILLIAM C. KING, M.D.
Instructor in Dermatology, University of Texas Medical School, Galveston. University of Texas Health Center, Brackenridge Hospital, St. David's Hospital and Bergstrom Air Force Base Hospital, Austin, Texas.

JOSEPH BARNETT KIRSNER, M.D., Ph.D., F.A.C.P. Professor of Medicine, University of Chicago School of Medicine. Attending Physician, A. M. Billings Hospital, Chicago, Illinois.

ROBERT W. KISTNER, M.D., F.A.C.S.
Associate in Gynecology, Harvard Medical School,
Boston. Associate Surgeon, Free Hospital for Women,
Brookline, Massachusetts.

ALBERT M. KLIGMAN, M.D., Ph.D.

Professor of Dermatology, University of Pennsylvania
School of Medicine. Associate in Dermatology, Hospital of the University of Pennsylvania, Philadelphia.

JOHN M. KNOX, M.D.
Assistant Professor, Baylor University College of Medicine. Attending Physician, V.A. Hospital; Associate Physician, Hermann Hospital and Methodist Hospital; Associate Attending, Jefferson Davis Hospital; Staff Consultant, Texas Children's Hospital, Houston, Texas.

R. F. KRAUSE, M.D., Ph.D.
Professor and Head, Department of Biochemistry,
West Virginia University Medical Center. Physician,
Monongalia General Hospital; Vincent Pallotti Hospital, Morgantown, West Virginia.

HARVEY KRIEGER, M.D., F.A.C.S.

Assistant Professor, Department of Surgery, Western
Reserve University School of Medicine. Assistant
Surgeon, Department of Surgery, University Hospitals of Cleveland, Ohio.

I. NEWTON KUGELMASS, M.D., Ph.D., Sc.D. Consultant, Departments of Health and Hospitals, New York City. Consultant Pediatrician, Heckscher Institute for Child Health and Manhattan General Hospital, New York City; Monmouth Memorial Hospital, Long Branch; Muhlenberg Hospital, Plainfield; Lynn Memorial Hospital, Sussex, New Jersey.

EDWARD CHARLES KUNKLE, M.D., F.A.C.P.
Professor of Neurology, Duke University Medical
Center. Assistant Physician, Duke University Medical
Center, and Consultant in Neurology, Veterans Administration Hospital, Durham, North Carolina.

GENE M. LASATER, M.D.

Formerly Assistant Professor of Neurology, University of Tennessee College of Medicine, Memphis. Staff Member, St. Luke's, St. Joseph's, Mercy, Presbyterian, Porter's and Swedish Hospitals, Denver, Colorado.

ALEXANDER LEAF, M.D.

Assistant Professor of Medicine, Harvard Medical School. Associate Physician, Massachusetts General Hospital, Boston, Massachusetts.

LUDWIG G. LEDERER, Ph.D., M.D.
Assistant Professor of Medicine, George Washington
University Hospital. Attending Staff, George Washington University Hospital; Courtesy Staff, Washington Hospital Center, Washington, D.C., and Alexandria Hospital, Alexandria, Virginia.

CHARLES T. LEE, Jr., M.D.
Instructor in Medicine, University of Pennsylvania School of Medicine. Assistant Physician, Pennsylvania and Chestnut Hill Hospitals, Philadelphia, Pennsylvania.

EDWIN H. LENNETTE, Ph.D., M.D.

Chief, Viral and Rickettsial Disease Laboratory, California State Department of Public Health; Lecturer in Virology, School of Public Health, University of California at Berkeley. Attending Physician, Highland-Alameda County Hospital and Peralta Hospital, Oakland, California.

AARON B. LERNER, M.D., Ph.D.

Professor of Medicine, Yale University School of Medicine, New Haven, Connecticut.

MARGUERITE R. LERNER, M.D.

Clinical Instructor in Dermatology, Yale University School of Medicine, New Haven, Connecticut.

WALTER F. LEVER, M.D.

Assistant Clinical Professor of Dermatology, Harvard Medical School. Associate Dermatologist, Massachusetts General Hospital; Senior Associate in Dermatology, Peter Bent Brigham Hospital; Consultant in Dermatology, The Children's Hospital, Boston, Massachusetts.

STANLEY LEVEY, Ph.D.

Associate Professor of Biochemistry, Department of Surgery, Western Reserve University School of Medicine, Cleveland, Ohio.

ERWIN LEVIN, M.A., M.D.

Senior Clinical Instructor in Medicine, Western Reserve University School of Medicine. Associate Visiting Physician, Cuyahoga County Hospital; Assistant Visiting Physician and Physician in Charge, OPD, Mount Sinai Hospital; Consultant in Gastroenterology, Deaconess Hospital, Cleveland, Ohio.

SANFORD LEVINE, M.D.

Associate Attending, Internal Medicine, Mt. Sinai Hospital; Visiting Staff, Heart Institute, Miami Beach, Florida.

GEORGE M. LEWIS, M.D., F.A.C.P.

Professor of Clinical Medicine (Dermatology), Cornell University Medical College. Attending Dermatologist, New York Hospital, New York City.

GRANT W. LIDDLE, M.D.

Associate Professor of Medicine, Vanderbilt University School of Medicine, Director of Endocrine Clinic and Attending Physician, Vanderbilt Hospital, Nashville, Tennessee.

WILLIAM LIKOFF, M.D.

Associate Professor of Medicine, Hahnemann Medical College and Hospital. Chief Cardiologist to the Bailey Thoracic Clinic, Philadelphia, Pennsylvania.

GEORGE D. LILLY, M.D., M.S., F.A.C.S.

Chairman, Surgical Division, Victoria Hospital, Miami; Surgical Consultant, Mt. Sinai Hospital, Miami Beach, Florida.

ROBERT R. LINTON, M.D., F.A.C.S.

Assistant Clinical Professor of Surgery, Harvard Medical School. Visiting Surgeon, Massachusetts General Hospital, Boston, Massachusetts.

FREDERICK A. LLOYD, M.D.

Associate Professor of Urology, Northwestern University Medical School. Attending Urologist, Passavant Memorial Hospital, Chicago; Consultant and Chair-

man of Urological Department, Veterans Administration Hospital, Hines, Illinois.

GEORGE H. W. LUCAS, Ph.D.

Professor of Pharmacology, Department of Pharmacology, University of Toronto, Ontario, Canada.

SALVATORE P. LUCIA, M.D., Sc.D. (Hon.)
Professor of Medicine, University of California School
of Medicine. Visiting Physician, University of California Hospital, Franklin Hospital, San Francisco
Hospital; Consulting Physician in Oncology, Cancer
Research Institute, San Francisco, California.

HAROLD J. MAGNUSON, M.D., M.P.H., F.A.C.P. Medical Director, U.S. Public Health Service. Chief, Occupational Health Program, U.S. Public Health Service, Washington, D.C.

J. TATE MASON, M.D., F.A.C.S.

Clinical Instructor in Urology, University of Washington School of Medicine. Chief of Section of Urology, Mason Clinic and Virginia Mason Hospital; Consulting Urologist, United States Public Health Service; Attending Urologist, Columbus, Providence and King County Hospitals, Seattle, Washington.

JOSEPH E. MAURER, M.D., F.A.C.S.

Instructor in Urology, University of Louisville School of Medicine. Active Staff, Louisville General Hospital, Norton Infirmary, Children's Hospital, Louisville, Kentucky.

FRANK H. MAYFIELD, M.D., F.A.C.S.

Assistant Professor of Clinical Surgery (on leave), University of Cincinnati College of Medicine. Director of Department of Neurosurgery, Christ Hospital and Good Samaritan Hospital, Cincinnati, Ohio.

ROBERT T. McCARTY, M.S., M.D., F.A.P.S.
Assistant Professor of Medicine, Mayo Foundation,
School of Medicine. Staff, St. Joseph's, St. Luke's and
St. Francis Hospitals, Milwaukee; Attending Staff,
Milwaukee County Hospital, Wauwatosa, and Veterans Administration Hospital, Wood, Wisconsin.

WILLIAM M. McCONAHEY, M.D., M.S. (Med.)
Assistant Professor of Medicine, Mayo Foundation,
Graduate School, University of Minnesota. Consultant, Section of Medicine, Mayo Clinic, Rochester,
Minnesota.

W. J. McCONNELL, M.D.

Formerly Associate Professor of Occupational Health, New York University School of Management. Formerly Associate Director of Occupational Health and Safety, The Metropolitan Life Insurance Company, New York City.

FRED R. McCRUMB, Jr., M.D.

Assistant Professor of Medicine and Director, Section of Infectious Diseases, University of Maryland School of Medicine, Baltimore.

JAMES A. McEACHEN, M.D.

Instructor in Medicine, College of Medical Evangelists, Los Angeles. Director, Cardiopulmonary Laboratory, St. John's Hospital, Santa Monica, California.

JOHN PHILLIP McGOVERN, M.D., F.A.A.P., F.A.C.A., F.A.A.A.

Associate Clinical Professor of Pediatrics and Microbiology, Baylor University College of Medicine; As-

sociate Clinical Professor of Allergy, University of Texas Postgraduate School of Medicine. Chief of Allergy and Director of Junior League Allergy Clinic, Texas Children's Hospital, Houston, Texas.

HERBERT MESCON, M.D.

Professor and Head of Department of Dermatology, Boston University School of Medicine. Chief of Dermatology, Massachusetts Memorial Hospitals; Senior Consultant in Dermatology, Lemuel Shattuck Hospital, Boston, Massachusetts.

KARL A. MEYER, M.D., F.A.C.S.

Emeritus Professor of Surgery, Northwestern University Medical School. Chairman, Department of Surgery, Cook County Hospital; Surgeon-in-Chief, Columbus Hospital, Chicago, Illinois.

JOHN W. MIDDLETON, M.D., F.A.C.P., F.C.C.P. Associate Professor of Internal Medicine, University of Texas Medical Branch, Clinical Director, Ziegler Hospital for Diseases of the Chest; Consultant in Medicine (Pulmonary Diseases), U.S.P.H.S. Hospital, Galveston, Texas.

MARK MOLDAWER, M.D.

Assistant Professor of Internal Medicine, Baylor University College of Medicine. Attending Physician, Jefferson Davis Hospital and Methodist Hospital, Houston, Texas.

CARL V. MOORE, M.D., F.A.C.P. Busch Professor of Medicine, Washington University

School of Medicine. Physician-in-Chief, Barnes Hospital, St. Louis, Missouri.

FEDERICO HERNÁNDEZ MORALES, M.D., F.A.C.P. Professor of Clinical Medicine (Gastroenterology), University of Puerto Rico School of Medicine, Consultant in Gastroenterology, San Patricio Veterans Hospital and Rodríguez General Hospital, San Juan, Puerto Rico.

DAVID B. MORGAN, M.D. THAT CHANGE

Dermatologist, Attending or Active Staff, St. Luke's, Research, St. Joseph, General and Children's Mercy Hospitals, Kansas City, Missouri.

GEORGE E. MORRIS, M.D.

Visiting Dermatologist, Long Island Hospital, Boston; and Holy Ghost Hospital, Cambridge, Massachusetts.

FRED H. MOWREY, M.D., F.A.C.P. Chief of Professional Services and Chief of Depart-

ment of Medicine, Letterman Army Hospital, San Francisco, California, handword fullent Lymno

DONALD W. MULDER, M.D., M.S. (NEUROLOGY) Associate Professor of Neurology, Mayo Foundation, Graduate School, University of Minnesota. Consultant, Section of Neurology, Mayo Clinic, Rochester, Minnesota, and Issued oleflud ygologod

WILLIAM H. MULLER, Jr., M.D., F.A.C.S.
Stephen H. Watts Professor and Chairman of Department of Surgery, University of Virginia School of Medicine, Charlottesville, Virginia.

I. FRED MULLINS, M.D.

Professor and Chairman of Department of Dermatology, University of Texas Medical Branch. Chief

of Dermatology, University of Texas Medical Branch Hospitals, Galveston.

FRANCIS MURPHEY, M.D.

Professor of Neurosurgery, University of Tennessee College of Medicine. Chief of Department of Neurosurgery, Baptist Memorial Hospital and City of Memphis Hospitals, Memphis, Tennessee.

HOWARD A. NAQUIN, M.D., F.A.C.S.

Associate Professor of Ophthalmology, Johns Hopkins University School of Medicine. Consultant and Chief of Ophthalmology, Fort Howard V.A. Hospital; Ophthalmologist, Johns Hopkins Hospital, Baltimore, Maryland.

THOMAS F. NEALON, JR., M.D., F.A.C.S.
Associate Professor of Surgery, The Jefferson Medical College of Philadelphia. Adjunct in Surgery, The Jefferson Medical College Hospital; Attending in Surgery, Veterans Administration Hospital, Philadelphia, Pennsylvania.

CARL T. NELSON, M.D.

Professor of Dermatology, College of Physicians and Surgeons, Columbia University. Director of Dermatology, Presbyterian Hospital, New York City.

VICTOR D. NEWCOMER, M.D.

Associate Professor of Medicine (Dermatology), University of California School of Medicine at Los Angeles. Attending Physician, University of California Medical Center, Los Angeles; Consultant in Dermatology, Veterans Administration Hospital, West Los Angeles.

RAY O. NOOJIN, M.D.
Professor and Chairman of Department of Dermatology, University of Alabama Medical Center, Medical College of Alabama. Chairman of Department of Dermatology, University Hospital, Birmingham, Alabama.

LLOYD M. NYHUS, M.D., F.A.C.S.

Assistant Professor, Department of Surgery, University of Washington School of Medicine, Seattle. Attending Surgeon, University, Seattle and King County Hospitals, Seattle; Consultant in Surgery, Seattle V.A. Hospital, Madigan Army Hospital, Tacoma, and U.S. Naval Hospital, Bremerton, Washington.

H. R. OBERHILL, M.D.

Associate, Department of Surgery, Northwestern University Medical School. Senior Attending Neurosurgeon, Chicago Wesley Memorial Hospital, Chicago, Illinois.

MICHAEL K. O'HEERON, M.D., F.A.C.S., F.I.C.S.
Clinical Professor of Urology, Baylor University
College of Medicine. Chief of Urology, Methodist and St. Joseph's Hospitals, Houston; Consultant in Urology, Brooke Army Hospital, Fort Sam Houston, Texas, and Veterans Administration, Texas and Seution of Dermatology, Mayo Chai, ansisinol or

MARY B. OLNEY, M.D. San Francisco, California.

ARTHUR M. OLSEN, M.D., M.S. (MED.), F.A.C.P. Professor of Medicine, Mayor Foundation, Graduate School, University of Minnesota. Consultant, Section of Medicine, Mayo Clinic, Rochester, Minnesota.