

Editor: George D. Lundberg, MD
Deputy Editor: M. Therese Southgate, MD
Senior Editor: John D. Archer, MD
Senior Contributing Editor: Drummond Rennie, MD
Contributing Editors: John P. Callan, MD, Charles B. Clayman, MD, Lawrence D. Grouse, MD, PhD, Harriet S. Meyer, MD, Carlotta M. Rinke, MD
Medical News—Editor: Phil Gunby; **Associate Editors:** Kimberly Glasbrenner, Marsha F. Goldsmith, Charles Marwick (Washington, DC), Kathryn Simmons
Assistant Editors: Lori A. Burnette, Hilda L. Slive, Roxanne K. Young
Staff Associate: Elaine Shelton
Production Manager: Marlene M. Hirsch
Assistant Production Manager: John R. Sayban
Editorial Processing Manager: Cheryl Iverson
Assistant Editorial Processing Manager: Paula Giltman
Reprints and Permissions: James M. Martens
Manuscript Records: Ethel Pinkston
Production Supervisors: Barbara Long (Copy Editing), Thomas J. Handrigan (Illustrations), Elizabeth Petrikenas (Proofreading), John R. Sayban (Advertising), Bonnie Van Clevan (Editorial), Jo Anne Weiskopf (Layout)
Copy Editing: Deborah Thorp (Free-lance Coordinator), Toni Brandeis, James Zrimsek
Proofreading: Verna Coffman, Patricia Coyne, Winifred O'Reilly, Lisette Sabbach, Barbara Wojtowicz
Letters: Sheri Raynard (Editorial Coordinator)
Senior Production Assistants: Karen Branham, Diane Darnell, Susan Klein, Debra Lucas, Marilyn Moroney, Zack Price, Susan Routhier, Cathy Watkins, Blake Winter, Ellen Yoshihara
Production Assistant: Kathleen Sistek
Illustrations and Layout: Jerri Hall-Gortowski, Donna Hagler, Terese Noto, Janice Techter, Sandra Williams
Cover Editor: M. Therese Southgate, MD
Editorial Assistants: Mary Cannon, Paula Gluck, Sharon Iverson, Cassandra Johnson, Roberta Larson, Mary Ann Lilly, Rosemary Navarro, Lucille Souci
Indexing: Phyllis H. McLaren (Supervisor), Mary Kay Tinarella, Pam Wood
 All articles published, including editorials, letters, and book reviews, represent the opinions of the authors and do not reflect the official policy of the American Medical Association or the institution with which the author is affiliated, unless this is clearly specified.

JAMA, THE JOURNAL of the American Medical Association (ISSN 0098-7484), is published four issues per month by the American Medical Association, 535 N Dearborn St, Chicago, IL 60610. Phone (312) 645-5000. Cable address "Medic" Chicago.

SUBSCRIPTION RATES—The subscription rate per year for members of the AMA is \$2 included in the annual membership dues. The subscription rate per year for nonmembers is \$52 for one year, \$90 for two years in the United States and US possessions; in all other countries, one year, \$68; two years, \$110 (add \$30 surcharge to each one-year subscription and \$60 surcharge to each two-year subscription for air delivery to the United Kingdom and Europe only). Rates to medical students and residents, \$26 for one year, \$45 for two years in the United States and US possessions. Rates for subscriptions for delivery to Bangladesh, India, Japan, Nepal, South Korea, and Sri Lanka are available through respective exclusive agents. Address all subscription communications to American Medical Association, Circulation and Fulfillment Division, 535 N Dearborn St, Chicago, IL 60610. Phone: (312) 645-4929.

CHANGE OF ADDRESS—POSTMASTER, send all address changes to Caryl L. Wertheimer, Director of Fulfillment, 535 N Dearborn St, Chicago, IL 60610. Notification of address change must be made at least six weeks in advance; include both old and new addresses, a recent mailing label, and your new zip code.

Second-class postage paid at Chicago and additional mailing office.

Copyright © 1984 by the American Medical Association



THE COVER

Claude Monet, *The Cradle—Camille With the Artist's Son, Jean* 2308
 M. T. Southgate, MD, Chicago

MEDICAL NEWS 2313

Hormone Hypothesis Joins Factors Under Study in Motion Sickness . . . Space Station, Shuttle Offer New Medical Possibilities . . . Two Magnetic Scanners Approved . . . Miscellanea Medica

LEADS FROM THE MMWR 2327

INTERNATIONAL ABSTRACTS 2337

A PIECE OF MY MIND

Claymore Clara 2343
 K. V. Cammack, MD, Las Vegas

MEDICINE IN THE USA: HISTORICAL VIGNETTES

XXIII. The Automobile Makes an Impact 2352
 L. S. King, MD, Chicago

REFERENCE DIRECTORIES

US Meetings, May 4; Foreign Meetings, April 13; Organizations of Medical Interest, April 27; State Associations and Exams and Licensure, April 20; AMA Officials, April 6

INSTRUCTIONS FOR AUTHORS 2356

LETTERS 2347

The Impending Doctor Glut B.-S. NguyenleHieu, MD, Shelton, Neb, D. B. Louria, MD, Newark, NJ . . . **Transplanted Nitroglycerin Disk** E. C. Perlman, MD, Minneapolis . . . **Dangers of Orally Administered Para-aminobenzoic Acid** S. Worobec, MD, A. LaChine, RN, Chicago . . . **Unscientific Administration Protested** C. H. Lowery, MD, Wexford, Pa, D. H. Spodick, MD, DSc, Worcester, Mass . . . **Jewish Observances** S. M. Fried, MD, Long Beach, Calif . . . **Students' Opinions on the 1980 GMENAC Report** R. E. Pust, MD, L. M. Moher, MD, Tucson . . . **Laser Surgery** K. K. Jain, MD, Long Beach, Calif, V. A. Fasano, MD, Turin, Italy . . . **Carbon Monoxide Intoxication: Diagnostic Considerations** S. P. Castle, MPH, S. C. Lapham, MD, MPH, Santa Fe, NM, W. G. Troutman, PharmD, Albuquerque, B. Manges, MD, Iowa City . . . **Psychogenic Micropsia in Fact and Fiction** J. M. Schneck, MD, New York

ORIGINAL CONTRIBUTIONS

Successful Immunization of Infants With and Without Maternal Antibody by Aerosolized Measles Vaccine 2363

A. B. Sabin, MD, Washington, DC; A. Flores Arechiga, MD, Monterrey, Mexico; J. Fernández de Castro, MD, Mexico, DF; P. Albrecht, MD; J. L. Sever, MD, PhD; I. Shekarchi, PhD, Bethesda, Md

Human Health Effects of 2,4,5-T and Its Toxic Contaminants 2372

R. R. Suskind, MD, V. S. Hertzberg, PhD, Cincinnati

Prevention of *Hemophilus influenzae* Type b Disease 2381

J. D. Band, MD; D. W. Fraser, MD; G. Ajello, MA, Atlanta; Hemophilus Influenzae Disease Study Group

SPECIAL COMMUNICATIONS

The Tomato Effect 2387

J. S. Goodwin, MD, J. M. Goodwin, MD, MPH, Albuquerque

Praziquantel and Refugee Health 2391

B. G. Weniger, MD, MPH, P. M. Schantz, VMD, PhD, Atlanta

CONTENTS—Continued

BRIEF REPORTS

Seasonal Arsenic Exposure From Burning Chromium-Copper-Arsenate-Treated Wood 2393

H. A. Peters, MD, W. A. Croft, DVM, PhD, Madison, Wis;
E. A. Woolson, PhD, Beltsville, Md; B. A. Darcey, M. A. Olson, Madison, Wis

Inadvertent Transbronchial Insertion of Narrow-Bore Feeding Tubes into the Pleural Space 2396

R. W. Hand, MD, M. Kempster, MD, Boston;
J. H. Levy, MD, Atlanta; P. R. Rogol, MD, P. Spirn, MD, Boston

COUNCIL REPORT

Combined Modality Approaches to Cancer Therapy 2398
Council on Scientific Affairs, Chicago

EDITORIALS

The Immune Response to Aerosolized Measles Vaccine 2408
R. W. Amler, MD; W. A. Orenstein, MD; K. J. Bart, MD, Atlanta

Does Rifampin Prophylaxis Prevent Disease Caused by *Hemophilus influenzae* Type b? 2408

M. T. Osterholm, PhD, MPH, Minneapolis;
T. V. Murphy, MD, Dallas

CONSENSUS CONFERENCE

Drugs and Insomnia 2410

LANDMARK ARTICLE

Chloroquine for Treatment of Acute Attacks of Vivax Malaria 2415

MAJ H. Most, MC; CPT I. M. London, MC; CPT C. A. Kane, MC;
CPT P. H. Lavietes, MC; CPT E. F. Schroeder, MC;
COL J. M. Hayman, Jr, MC, US Army

LANDMARK PERSPECTIVE

The Ascent and Decline of Chloroquine 2420

D. J. Wyler, MD, Boston

QUESTIONS AND ANSWERS 2425

Replacement Estrogen Therapy and Stage II Breast Cancer E. M. Greenspan, MD, New York, R. L. Shirley, MD, Boston . . . **Breast Cancer, Therapeutic Castration, and Replacement Hormone Therapy** B. J. Kennedy, MD, Minneapolis, I. Schiff, MD, Boston . . . **Replacement Estrogen Therapy and Risk of Recurrent Thromboembolism** E. C. Hill, MD, San Francisco, A. A. Sasahara, MD, West Roxbury and Brockton, Mass . . . **Chronic Pelvic Pain** J. W. Pearson, MD, Tucson, L. Speroff, MD, Cleveland . . . **Nipple Inversion in a Man** R. W. Crichtow, MD, Hanover, NH, T. L. Dao, MD, Buffalo

BOOKS 2433

AIDS (Siegal, Siegal) Reviewed by D. G. Ostrow, MD, PhD, Chicago . . . **The Work of WHO, 1980-1981: Biennial Report of the Director-General to the World Health Assembly and to the United Nations** Reviewed by J. A. H. Lee, MD, Seattle . . . **Review of Pathophysiology** (Kaufman, Papper, eds) Reviewed by F. D. Gray, Jr, MD, Philadelphia . . . **Color Atlas of Clinical Neurology** (Parsons) Reviewed by M. P. Alexander, MD, Boston . . . **Vascular Diseases** (Friedman, ed) Reviewed by R. W. Busuttill, MD, PhD, Los Angeles . . . **Outpatient Surgery of the Skin** (Coleman, Colon, Davis) Reviewed by P. C. Anderson, MD, Columbia, Mo . . . **Booknotes** . . . **Books Received**

OBITUARIES 2441

CLASSIFIED ADVERTISING 2459

CME Corner 2471

INDEX TO ADVERTISERS 2476

AMA Officers

President: Frank J. Jirka, Jr, MD*; **President-Elect:** Joseph F. Boyle, MD*; **Immediate Past President:** William Y. Rial, MD; **Secretary-Treasurer:** Hubert A. Ritter, MD*; **Speaker, House of Delegates:** Harrison L. Rogers, Jr, MD; **Vice-Speaker, House of Delegates:** James E. Davis, MD

AMA Trustees

Rufus K. Broadaway, MD; Charles Max Cole, MD; George L. Collins, Jr, MD; John J. Coury, Jr, MD* (Chairman); John H. Dawson, MD; F. William Dowda, MD; William S. Hotchkiss, MD* (Vice-Chairman); W. J. Lewis, MD; Alan R. Nelson, MD*; John J. Ring, MD; Hubert A. Ritter, MD*; James S. Todd, MD*
*Executive Committee

EDITORIAL BOARD

- Kenneth A. Arndt, MD**
Boston
- Byron J. Bailey, MD**
Galveston, Tex
- Arthur E. Baue, MD**
New Haven, Conn
- Frederick C. BIODI, MD**
Iowa City
- Donald J. Dalessio, MD**
La Jolla, Calif
- Cecilia M. Fenoglio, MD**
Albuquerque
- William H. Foege, MD**
Atlanta
- Renee C. Fox, PhD**
Philadelphia
- Daniel X. Freedman, MD**
Los Angeles
- Vincent A. Fulginiti, MD**
Tucson
- Marilyn Heins, MD**
Tucson
- Edward C. Hill, MD**
San Francisco
- James F. Holland, MD**
New York
- King K. Holmes, MD, PhD**
Seattle
- Harold G. Jacobson, MD**
Bronx, NY
- Robert J. Joynt, MD**
Rochester, NY
- Carol Kasper, MD**
Los Angeles
- Richard L. Landau, MD**
Chicago
- Daniel J. McCarty, MD**
Milwaukee
- William H. McLendon, MD**
Chapel Hill, NC
- Arno G. Motulsky, MD**
Seattle
- Robert E. Rakel, MD**
Iowa City
- Domeena C. Renshaw, MD**
Chicago
- Alfred Soffer, MD**
Park Ridge, Ill
- Robert M. Veatch, PhD**
Washington, DC

Executive Vice-President: James H. Sammons, MD
Deputy Executive Vice-President, Corporate, Publishing and Management Services: Thomas F. Hannon

Vice-President, Scientific Information: George D. Lundberg, MD

Vice-President, Publishing: John T. Baker
Director, Publication Production and Printing Division: Norman D. Richey

General Sales Manager; Director, Advertising Sales and Promotion Services Division: D. Joseph Dennehy

Director, Circulation-Fulfillment Division: Lee A. Parent

Director, Promotion and Western Sales: Thomas J. Carroll

Director, Advertising Services: Raymond Christian

ADVERTISING OFFICES: Eastern: 600 Third Ave, Suite 700, New York, NY 10016 (**Manager:** Robert C. Corcoran [212-867-8640]; **Representatives:** Bill Tice, Cliff Vanderhoof); Midwest/Farwest: 635 N Dearborn St, Chicago, IL 60610 (**Manager:** Thomas J. Carroll [312-645-4510]; **Representative:** Daniel T. Mjolsness); **Classified Advertising:** Delores Boudentt (312-645-4514)

ADVERTISING PRINCIPLES—Advertisements in this issue have been reviewed to comply with the principles governing advertising in AMA scientific publications. A copy of these principles is available on request.