

# Cancer Research

**Editor** SIDNEY WEINHOUSE

**Managing Editor** MARGARET FOTI

**Cover Editor** MICHAEL B. SHIMKIN

**Editorial Assistants**

TINA ANTONINI  
PATRICIA A. BERGBAUER  
MARSHA R. BLOOM  
ELAINE L. BLOCK

**Associate Editors**

Creed W. Abell  
Joseph C. Arcos  
M. Earl Balis  
Renato Baserga  
Frederick F. Becker  
Nathaniel I. Berlin  
Howard A. Bern  
Joseph R. Bertino  
R. K. Boutwell  
Harris Busch  
Bayard D. Clarkson  
Eugene D. Day  
Vittorio Defendi  
Joseph A. DiPaolo  
Leon Dmochowski  
Gertrude B. Elion  
John L. Fahey  
Emmanuel Farber  
Alexander Fefer  
Emil Frei, III  
Gilbert H. Friedell  
Charlotte Friend  
Robert C. Gallo  
Harry V. Gelboin  
Phil Gold  
Sen-Itiroh Hakomori  
Thomas C. Hall  
Leonard Hayflick  
Karl E. Hellström  
Ronald B. Herberman  
Russell Hilf  
Erich Hirschberg  
Robert B. Hurlbert  
Charles C. Irving  
Irving S. Johnson  
Robert F. Kallman  
Albert S. Kaplan

**Editorial Advisory Board**

Samuel Abraham  
Aaron Bendich  
L. Lee Bennett, Jr.  
Michael J. Brennan  
Paul P. Carbone  
Allan H. Conney  
Clyde J. Dawe  
Friedrich Deinhardt  
Frederick J. de Serres  
Eugene R. DeSombre  
Vincent T. DeVita  
Sheldon M. Epstein  
Philip Feigelson  
James R. Fouts  
Joseph F. Fraumeni, Jr.  
Emil J. Freireich  
John J. Furth  
Maurice Green  
Olga Greengard  
Pietro M. Gullino  
Hidesaburo Hanafusa  
Theodore S. Hauschka  
Evan M. Hersh  
T. C. Hsu  
Elizabeth H. Leduc  
Joseph Leighton  
Aaron B. Lerner

EDITH M. BALLOU  
JAY VAN WAGENEN  
JOANNE M. PAJKURIC

Werner H. Kirsten  
Saul Kit  
Marvin Kuschner  
Montague Lane  
Robert Love  
Mortimer L. Mendelsohn  
Enrico Mihich  
Charles A. Nichol  
Alex B. Novikoff  
G. Barry Pierce  
Henry C. Pitot  
Keith R. Porter  
Fred Rapp  
Fred Rosen  
Jay S. Roth  
Alan C. Sartorelli  
Frank M. Schabel, Jr.  
Marvin A. Schneiderman  
Richard B. Setlow  
Emma Shelton  
Michael B. Shimkin  
Hans O. Sjögren  
Edward A. Smuckler  
Fred L. Snyder  
Sam Sorof  
Jesse L. Steinfeld  
Paul O. P. Ts'o  
John E. Ulmann  
Arthur C. Upton  
Lee W. Wattenberg  
George Weber  
I. Bernard Weinstein  
John H. Weisburger  
H. Guy Williams-Ashman  
Gerald N. Wogan  
C. Gordon Zubrod

William Lijinsky  
Abraham M. Lilienfeld  
Frank Lilly  
Mortimer B. Lipsett  
Gerald Litwack  
H. George Mandel  
Nathan Mantel  
Joseph Meites  
Joseph L. Melnick  
Elizabeth C. Miller  
Paul Nettesheim  
Joseph S. Pagano  
Dohald Pinkel  
Michael Potter  
DeWayne Roberts  
Katherine K. Sanford  
Gordon H. Sato  
Stewart Sell  
Herschel Sidransky  
H. F. Stich  
Osias Stutman  
George J. Todaro  
Charles W. Todd  
Benjamin L. Van Duuren  
Eugene J. Van Scott  
Leonard Warren  
Ernst L. Wynder

**Notice to Members of the American Association  
for Cancer Research**

*Officers for 1975-1976*

**President:** CHARLOTTE FRIEND, Center of Experimental Cell Biology, Mount Sinai School of Medicine, New York, New York 10029.

**Vice President:** ELIZABETH C. MILLER, McArdle Laboratory for Cancer Research, Medical Center, University of Wisconsin, Madison, Wisconsin 53706

**Secretary-Treasurer:** HUGH J. CREECH, Institute for Cancer Research, 7701 Burholme Avenue, Fox Chase, Philadelphia, Pennsylvania 19111.

**The annual dues** to active members of the American Association for Cancer Research include a subscription to the Journal **CANCER RESEARCH**. The regular annual subscription price to **CANCER RESEARCH** for members of the Association is \$15.00 per annual volume. Payment of dues and changes of address of members of the Association should be sent promptly to Dr. Creech.

**Sponsors**

**CANCER RESEARCH** is sponsored by the American Association for Cancer Research, Inc.; the National Cancer Institute, United States Public Health Service; the American Cancer Society, Inc.; the Damon Runyon-Walter Winchell Cancer Fund; the Jane Coffin Childs Memorial Fund for Medical Research; and the Elsa U. Pardee Foundation.

**Notice to General Subscribers**

**CANCER RESEARCH** is published monthly, one volume per year, for Cancer Research, Inc., by The Williams & Wilkins Company, 428 E. Preston St., Baltimore, Maryland 21202. Subscriptions include the Proceedings of the American Association for Cancer Research issued in March of each year. Except for members of the American Association for Cancer Research, all subscriptions are payable in advance to the publisher of the Journal, The Williams & Wilkins Co., to which all business communications, remittances (in United States currency or its equivalent), and subscription orders should be sent. Nonmembers of the American Association for Cancer Research, Inc., may subscribe to the Journal **CANCER RESEARCH** at the rate of \$75.00 per annual volume, including postage. When available, single copies will be sold for \$8.00. Notify the publisher of changes of address 60 days in advance, giving both the old and new addresses. Copies undeliverable because of address changes will be destroyed.

**Papers submitted for publication** and all other communications for the attention of the Editor should be sent to Dr. Sidney Weinhouse, *Editor*, **CANCER RESEARCH**, Fels Research Institute, Temple University School of Medicine, Philadelphia, Pennsylvania, 19140. Telephone: 215-221-4720. Authors should consult the detailed **INSTRUCTIONS FOR AUTHORS** printed in the January and July issues of the Journal; copies are available upon request.

**Back Issues of the Journal**

Copies of back stock of the Journal **CANCER RESEARCH** for the two years preceding the current year may be ordered from The Williams & Wilkins Co., address above. Earlier issues may be obtained from Walter J. Johnson, Inc., 355 Chestnut Street, Norwood, New Jersey 07648.

Second-class postage paid at Baltimore, Maryland and additional mailing offices

Copyright 1975 by Cancer Research, Inc.