

# Clinical Cancer Research



An Official Journal  
of the  
American Association  
for  
Cancer Research

## American Association for Cancer Research, Inc.

**Executive Director and  
Director of Publications**  
Margaret Foti

### Publications Staff

**Associate Director of Publications**  
Mary Anne Mennite

**Manager, Editorial Services**  
Heide M. Puszta

### Staff Editors

Michael J. Beveridge  
Kathleen C. Assenmacher  
Pamela R. Arnold  
Laurie B. Baker  
Ronald M. Vitale

### Staff Assistant

Mary Ellen Purring

### Administrative Coordinator

Holly M. Haskins

### Senior Editorial Assistant

Theresa A. Griffith

### Editorial Assistants

Valerie L. Samuel  
Andrea Conrad  
Cecilia Gallo

### Marketing Coordinator

Robert B. O'Malley

### Administrative Staff

#### Director of Administration

Adam D. Blistein

#### Controller

Joan D. Ritchie

#### Coordinator, Financial Operations

George L. Moore

#### Manager, Meetings and Exhibits

Jeffrey M. Ruben

#### Meeting Planner

Carole L. Kanoff

#### Public Information Coordinator

Jenny Anne Horst-Martz

#### Assistant to the Executive Director

Ruth E. Fortson

#### Membership Development Coordinator

Robin E. Felder

#### Administrative Assistant

Margaret A. Pickels

#### Systems Specialist

Lydia I. Rodriguez

#### Secretary

Maliika L. Wright

#### Editorial Assistant

Diana F. Certo

#### Office Clerk

James J. Waters

#### Data Entry Clerk

Robert A. Simms II

## Editor-in-Chief

John Mendelsohn

*Growth factors, hormones, cell growth;  
radiation therapy, surgery, subspecialty investigation*

## Deputy Editor

Waun Ki Hong

*Clinical trials targeted at specific malignancies, chemoprevention*

## Senior Editors

Bruce A. Chabner

*Clinical pharmacology and pharmacokinetics,  
drug metabolism, drug sensitivity and resistance,  
drug interactions*

Michael B. Kastan

*Cell cycle regulation, cell death*

Lance A. Liotta

*Pathology, metastasis*

David Sidransky

*Molecular pathogenesis, molecular correlates*

## Associate Editors

Martin D. Abeloff

Carmen J. Allegra

James O. Armitage

Laurence H. Baker

Charles M. Balch

Barthel Barlogie

Robert C. Bast, Jr.

Colin B. Begg

Joseph R. Bertino

Clara D. Bloomfield

Ronald H. Blum

George J. Bosl

Paul A. Bunn, Jr.

Michael A. Caligiuri

Alfred E. Chang

Paul B. Chapman

Michaele C. Christian

Curt I. Civin

Ronald Crystal

William S. Dalton

Albert B. Deisseroth

Patricia K. Donahoe

Ross C. Donehower

Timothy J. Eberlein

Merrill J. Egorin

Frederick R. Eilber

Robert M. Elashoff

Paul F. Engstrom

Eric R. Fearon

Isaiah J. Fidler

Richard M. Fox

Michael A. Friedman

Zvi Y. Fuks

Stephen L. George

Giuseppe Giaccone

Luca Gianni

Anna Giuliano

Eli Glatstein

David W. Golde

Mark R. Green

Jerome E. Groopman

William N. Hait

Adrian L. Harris

Curtis C. Harris

Sandra J. Horning

William J. Hoskins

Janet A. Houghton

Stephen B. Howell

Daniel C. Ihde

John T. Isaacs

Robert B. Jenkins

David H. Johnson

V. Craig Jordan

Barton A. Kamen

Paul Sondel

*Immunotherapy and cytokines—preclinical, and  
clinical trials*

Beverly A. Teicher

*Experimental therapeutics, preclinical  
pharmacology, combined modality regimens,  
animal therapy models*

Jeffrey M. Trent

*Genetics, cytogenetics*

S. B. Kaye

David P. Kelsen

David Khayat

John M. Kirkwood

Donald W. Kufe

Steven M. Larson

John S. Lazo

Victor A. Levin

Allen Lichter

Marc E. Lippman

Edison T. Liu

Patrick J. Loehrer, Sr.

Dan L. Longo

Michael T. Lotze

Maurie Markman

William P. McGuire III

Roland Mertelsmann

Frank L. Meyskens, Jr.

John D. Minna

Monica Morrow

James L. Mulshine

Sharon B. Murphy

Charles E. Myers

Larry Norton

Richard J. O'Reilly

Robert F. Ozols

Ira Pastan

William P. Peters

Herbert M. Pinedo

Philip A. Pizzo

William K. Plunkett

Jerome B. Posner

Derek Raghavan

Mark J. Ratain

John C. Reed

Ralph A. Reisfeld

Jerome Ritz

Jack A. Roth

Eric B. Rowinsky

Edward A. Sausville

Howard I. Scher

Richard L. Schilsky

Richard M. Simon

John F. Smyth

Jeffrey A. Sosman

Michael B. Sporn

Louise C. Strong

Masaaki Terada

Daniel D. Von Hoff

Raymond P. Warrell, Jr.

Jane Weeks

Ralph R. Weichselbaum

Theresa L. Whiteside

Leonard A. Zwelling

## Editorial Office

Colleen M. Hubona, *Executive Editor*, Department of Educational Publishing Services—227, The University of Texas M.D. Anderson Cancer Center, 1515 Holcombe Boulevard, Houston, Texas 77030. Phone: (713) 792-6014; Fax: (713) 792-6016.

Through the kind assistance of the Japanese Cancer Association, accelerated mailing of all AACR journals to AACR members in Japan is supported by a generous grant from the Banyu Pharmaceutical Company, Tsukuba, Japan. One-year subscriptions to *Clinical Cancer Research* are made available to third-year hematology/oncology fellows in the United States through the generous support of Rhône-Poulenc Rorer Oncology.

*Clinical Cancer Research* is published monthly, one volume per year, by the American Association for Cancer Research, Inc. (AACR). Except for members of the AACR, all subscriptions are payable in advance to AACR, Subscription Office, P.O. Box 11806, Birmingham, AL 35202 [Phone: (800) 633-4931 or (205) 995-1567; FAX: (205) 995-1588], to which all business communications, remittances (in United States currency or its equivalent), and subscription orders should be sent. In Japan, send orders and inquiries to (sole agent): USACO Corporation, Tsutsumi Bldg., 13-12, Shimbashi 1-chome, Minato-ku, Tokyo 105, Japan; Tel. (03) 502-6471. Individuals who are not AACR members may subscribe to Volume 3 (1997) of *Clinical Cancer Research* at the rate of \$105 U.S./\$145 foreign. *Clinical Cancer Research* is only available to institutions as a combined subscription with *Cancer Research*. The combined 1997 institutional subscription price of \$685 U.S./\$815 foreign includes \$170 U.S./\$210 foreign for a subscription to *Clinical Cancer Research*. (Foreign subscription cost includes cost of surface mail. For faster delivery, expedited mailing rates are available by contacting the AACR Publications Department.) Canadian subscribers should add 7% GST. Changes of address notification should be sent 60 days in advance and include both old and new addresses. Member subscribers should send address changes to: AACR Member Services, Public Ledger Bldg., Suite 826, 150 South Independence Mall West, Philadelphia, PA 19106-3483. Nonmember subscribers should send changes of address to: AACR Subscription Office, P.O. Box 11806, Birmingham, AL 35202. Copies of the journal which are undeliverable because of address changes will be destroyed.



ISSN 0732-183X