FEBRUARY 16-21, 1998

Innovative Molecular Biology Approaches to the Prevention, Diagnosis, and Therapy of Cancer

Joint Meeting with the Japanese Cancer Association
Chairpersons: Edward Bresnick, Worcester, MA; Kaoru Abe, Tokyo, Japan
Maui Marriott Resort, Maui, HI

MARCH 28-APRIL 1, 1998

89th Annual Meeting

Chairperson: Frank J. Rauscher III, Philadelphia, PA
Morial Convention Center, New Orleans, LA

JUNE 14-18, 1998

Proteases and Protease Inhibitors in Cancer

Co-Sponsored by Acta Pathologica Microbiologica Immunologica Scandinavia
Chairpersons: Keld Dano, Copenhagen, Denmark; and Lynn M. Matrisian, Nashville, TN
Nyborg Strand Conference Center, Nyborg, Denmark

SEPTEMBER 24-28, 1998

Cellular Targets of Viral Carcinogenesis

Chairperson: Thea D. Tlsty, San Francisco, CA
Co-Chairpersons: Don Ganem, San Francisco, CA; Peter M. Howley, Boston, MA; Carol L. Prives, New York, NY; and Eileen P. White, Piscataway, NJ
Marriott's Laguna Cliffs Resort, Dana Point, CA

OCTOBER 14-18, 1998

Gene Regulation and Cancer (10th Anniversary of the AACR Special Conferences)

Chairpersons: Phillip A. Sharp, Cambridge, MA; Jacqueline A. Lees, Cambridge, MA, and Steven L. McKnight, Dallas, TX
The Homestead, Hot Springs, VA

NOVEMBER 11-15, 1998

Endogenous Sources of Mutations

Chairpersons: Lawrence J. Marnett, Nashville, TN; James A. Swenberg, Chapel Hill, NC; Tomas A. Lindahl, Herts, England
Sanibel Harbour Resort and Spa, Ft. Myers, FL

DECEMBER 2-6, 1998

New Approaches to Controlling Prostate Cancer

Moderator: Donald S. Coffey, Baltimore, MD
Chairpersons: Jonathan W. Simons, Baltimore, MD, and Kenneth J. Pienta, Ann Arbor, MI
Hyatt Grand Champions Resort, Indian Wells (Palm Springs), CA

JANUARY 8-12, 1999

The Steroid Receptor Superfamily

Chairpersons: M. Geoffrey Rosenfeld, La Jolla, CA; Additional Chairperson to be Announced
Renaissance Esmeralda Resort, Indian Wells (Palm Springs), CA

JANUARY 31-FEBRUARY 5, 1999

Cancer Biology and the Mutant Mouse: New Methods, New Models, New Insights

Chairpersons: Tyler Jacks, Cambridge, MA; Ronald A. DePinho, New York, NY
Keystone Resort, Keystone, CO

AACR members will receive brochures on the above conferences as soon as they are available.
Nonmembers should call or write:
American Association for Cancer Research
Public Ledger Building, Suite 826
150 South Independence Mall West
Philadelphia, PA 19106-3483
215-440-9300  215-440-9313 (FAX)
E-Mail: meetings@aacr.org
For regular updates to this list visit the AACR's Website, http://www.aacr.org
Clinical
Cancer
Research

American Association for Cancer Research, Inc.
Executive Director and Director of Publications
Margaret Foti
Publications Staff
Associate Director of Publications
Mary Anne Mensite
Manager, Editorial Services
Heide M. Puzetay
Staff Editors
Michael J. Beveridge
Kathleen C. Assenmacher
Pamela R. Arnold
Ronald M. Vitale
Staff Assistant
Mary Ellen Pirring
Senior Editorial Assistant
Theresa A. Griffith
Editorial Assistants
Valerie L. Samuel
Cecilia Gallo
Marketing Coordinator
Robert B. O’Malley
Administrative Staff
Director of Administration
Adam D. Blistein
Controller
Joan D. Robie
Manager, Meetings and Exhibits
Jeffrey M. Ruben
Meeting Planner
Carole L. Kanoff
Public Information Coordinator
Jenny Anne Hors-Matz
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
Malika L. Wright
Editorial Assistant
Diana F. Certo
Office Clerk
James J. Waters
Data Entry Clerk
Robert A. Simms

AACR Publications Department
Public Ledger Building, Suite 826
150 South Independence Mall West
Philadelphia, PA 19106-3483
Phone: (215) 440-9300
FAX: (215) 440-9354

Editor-in-Chief
John Mendelsohn
Growth factors, hormones, cell growth; radiation therapy, surgery, subspecialty investigation

Deputy Editor
Waan 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
Barbel Barlogie
Robert C. Bast, Jr.
Colin B. Begg
Joseph R. Bertino
Ronald H. Blum
George J. Bosl
Paul A. Bunn, Jr.
Michael A. Caligiuri
Alfred E. Chang
Paul B. Chapman
Michaele C. Christian
Curt I. Civan
Ronald Crystal
William S. Dalton
Albert B. Deisseroth
Patricia K. Donahoe
Ross C. Donehower
Timothy J. Eberlein
Merrill E. Egorin
Frederick R. Elie
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 Giacone
Luca Gianni
Anna Giuliano
Elis Glasstein
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. Inade
John T. Isaacs
Robert B. Jenkins
David H. Johnson
V. Craig Jordan
Barton A. Kamen
S. B. Kaye
David P. Kelsen
David Khayat
John M. Kirkwood
Donald W. Kufe
Steven M. Larson
John S. Lazo
Victor A. Levin
Allan Lichter
Marc E. Lippman
Edison T. Liu
Patrick J. Loehrer, Sr.
Dan L. Longo
Michael T. Lotze
Maurie Markman
William P. McGuire III
Roland Mettelsanti
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. Pizzolo
William K. Plunkett
Jeremy B. Posner
Derek Raghavan
Mark J. Ratain
John C. Reed
Ralph A. Reifisd
Jeremy 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 Tabohara
Daniel V. Von Hoff
Raymond P. Warrell, Jr.
Jane Weeks
Ralph R. Weichselbaum
Theresa L. Whitehead
Leonard A. Zawel

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) 995-1588; 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 to: Waseda University Press, Inc., 2-16-1, Minami-Aoyama, Minato-ku, Tokyo 105, Japan. Phone: (03) 3502-6471. Individuals who are not AACR members may subscribe to Volume 4 (1998) of Clinical Cancer Research at the rate of $120.00 U.S./$160 foreign. Clinical Cancer Research is only available to institutions as a combined subscription with Cancer Research. The combined 1998 continuous subscription price of $795 U.S./$953 foreign includes $210 U.S./$220 foreign for a subscription to Clinical Cancer Research. (Foreign subscription cost includes cost of foreign 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. Members should send address changes to AACR Members 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.
Notice to Members of the American Association for Cancer Research (AACR)
Officers for 1997–1998
President: Donald S. Coffey, Johns Hopkins University School of Medicine, Baltimore, MD 21287-2101
President-Elect: Webster K. Cavenee, Ludwig Institute for Cancer Research, La Jolla, CA 92039-0660
Treasurer: Bayard D. Clarkson, Memorial Sloan-Kettering Cancer Center, New York, NY 10021
Executive Director: Margaret Foti, AACR, Public Ledger Bldg., Suite 826, Philadelphia, PA 19106-3483

Annual Dues
The annual dues of active members of the AACR are $175. $50 of which may be applied to a subscription to Clinical Cancer Research. Corresponding members of the Association will be charged an appropriate fee to offset periodicals postage costs. Payment of dues and changes of address of members of the Association should be sent promptly to Margaret Foti, Executive Director, AACR, Public Ledger Bldg., Suite 826, 150 South Independence Mall West, Philadelphia, PA 19106-3483; Phone: (215) 440-9300; FAX: (215) 440-9313.

Submission of Manuscripts
Clinical Cancer Research, a journal of the American Association for Cancer Research, publishes original articles describing clinical research on the cellular and molecular characterization, prevention, diagnosis, and therapy of human cancer. Its focus is on innovative clinical research and translational research which bridges the laboratory and the clinic. Clinical Cancer Research is especially interested in clinical trials evaluating new treatments for cancer; research on molecular abnormalities that predict incidence, response to therapy, and outcome; and laboratory studies of new drugs and biological agents that will lead to clinical trials in patients. All submissions undergo peer review. Papers should be sent directly to an appropriate Senior Editor or to the Editor-in-Chief for review. See “Instructions for Authors” (page ii of this issue) for complete mailing addresses of the Editor-in-Chief, Deputy Editor, and Senior Editors.

Back Issues and Single Copy Sales of the Journal
Copies of back stock of the journal may be ordered from AACR Subscription Office, P.O. Box 11806, Birmingham, AL 35202 [Phone: (800) 633-4931 or (205) 995-1567; FAX: (205) 995-1588]. As long as supplies permit, single copies will be sold by this company at $25.00/copy. Orders outside the U.S. add $3/copy to offset postage costs.

Advertisements
Advertisement insertion orders and copy must be received one month prior to the date of issue in which the advertisement is to be published. The journal is mailed on approximately the 1st day of the month of issue. Inquiries about advertising should be directed to: M. J. Mrvica Associates, Inc., 2 West Taunton Ave., Berlin, NJ 08009 [Telephone: (609) 768-9360; FAX: (609) 753-0064].

Copyright and Permissions
Authors who wish to publish in Clinical Cancer Research must formally transfer copyright to the proprietor of the journal, the American Association for Cancer Research, Inc. It is understood by this transfer that the authors relinquish all exclusive rights of copyright ownership, including the rights of reproduction, derivation, distribution, sale, and display.

Authors who prepared their articles as part of their official duties as employees of the U.S. Federal Government are not required to transfer copyright to the American Association for Cancer Research, Inc., since these articles are considered to be in the public domain. In the case of articles supported by federal grants or contracts, copyright transfer to the American Association for Cancer Research, Inc., is required. The federal government may retain a nonexclusive license to publish or republish such material.

The Journal will routinely allow authors (or others with the permission of the authors) to include select parts of a copyrighted article in reviews, books, or subsequent papers, upon written request to the AACR Director of Publications. Requests to reproduce an article in its entirety will be considered on an individual basis and permission may be granted contingent upon payment of an appropriate copyright fee. All reproduction requests must include a brief description of intended use and a stamped, self-addressed envelope. Third parties should obtain the approval of the authors before corresponding with the AACR.

Those who wish to photocopy articles should contact the AACR Publications Department [Phone: (215) 440-9300; FAX: (215) 440-9354].

No responsibility is accepted by the Editors, by the American Association for Cancer Research, Inc., or by Cadmus Journal Services for the opinions expressed by contributors or for the content of the advertisements.

Clinical Cancer Research is abstracted and/or indexed in Cancer Lit., Chemical Abstracts, and Current Contents (Clinical Medicine).

Clinical Cancer Research (ISSN 1078-0432) is published monthly by the American Association for Cancer Research, Inc., Public Ledger Bldg., Suite 826, 150 South Independence Mall West, Philadelphia, PA 19106-3483 for $50 annually for members and $120 for individual nonmembers. Clinical Cancer Research is only available to institutions as a combined subscription with Cancer Research. The combined 1998 institutional subscription price of $795 includes $210 for a subscription to Clinical Cancer Research. Periodicals postage paid at Philadelphia, PA and additional mailing offices. POSTMASTER: Send address changes to AACR Subscription Office, P.O. Box 11806, Birmingham, AL 35202. Copyright 1998 by the American Association for Cancer Research, Inc. Printed on acid-free paper in the U.S.A.

411 Assessment of Messenger RNA of β1-4,4'-Acetlygalactosaminyltransferase as a Molecular Marker for Metastatic Melanoma. Christine T. Kuo, Peter J. Bostick, Reiko F. Irie, Donald L. Morton, Andrew J. Conrad, and Dave S. B. Hoon.

419 Prognostic Significance of Peripheral Blood and Bone Marrow Tyrosinase Messenger RNA in Malignant Melanoma. Ronald A. Ghossein, Daniel Cott, Murray Brennan, Zuo Feng Zhang, Yan Wang, Satyajit Bhattacharya, Alan Houghton, and Juan Rosai.


441 A Comparison between Microsatellite and Quantitative PCR Analyses to Detect Frequent p16 Copy Number Changes in Primary Bladder Tumors. John Paul Cairns, Pei-Wen Chiang, Saravanan Ramamoorthy, David M. Kurnit, and David Sidransky.


475 Heterogeneity of O6-Aldkyguanine-DNA-alkyltransferase Measured by Flow Cytometric Analysis in Blood and Bone Marrow Mononuclear Cells. Lili Liu, Keunyoung Lee, Jane Schupp, Omer N. Koç, and Stanton L. Gerson.


493 High Susceptibility of Human Cancer Xenografts with Higher Levels of Cytidine Deaminase to a 2'-Deoxyxycytidine Antimetabolite, 2'-Deoxy-2'-methylisocytidine. Masanori Miwa, Hiroyuki Eda, Masako Ura, Kaori F. Ouchi, Dennis D. Keith, Louise H. Foley, and Hideo Ishitsuka.

499 Comparative Study of the Antitumor Activity of Free Doxorubicin and Polyethylene Glycol-coated Liposomal Doxorubicin in a Mouse Lymphoma Model. Anna Cabanes, Dinah Tzemach, Dorit Goren, Aviva T. Horowitz, and Alberto Gabizon.


517 bcl-2, bax, bel-xL, and bel-xS Expression in Normal and Neoplastic Ovarian Tissues. Maria Marone, Giovanni Scambia, Simona Mozetti, Gabriella Ferrandina, Sonia Iacovella, Anna De Pasqua, Pierluigi Benedetti-Panici, and Salvatore Mancuso.

525 AACR Bulletin Board
Institution of Page Charges
Annual Meeting
Late-Breaking Research Session at the AACR Annual Meeting
Workshop on Molecular Biology in Clinical Oncology
AACR Special Conferences in Cancer Research

526 Author Index

Instructions for Authors

1998 AACR Annual Meeting
March 28–April 1, 1998
New Orleans, LA
For complete information about the meeting, visit the AACR Website at
http://www.aacr.org
National Cancer Institute  
Division of Clinical Sciences  
Bethesda, Maryland  

Opening Date: January 21, 1998  
Closing Date: March 31, 1998  
Announcement Number: CA-97-0335

Chief, Radiation Oncology Branch

The Division of Clinical Sciences, National Cancer Institute, National Institutes of Health, Public Health Service, is seeking applicants for the position of the Chief of the Radiation Oncology Branch. The Branch Chief is responsible for directing the clinical and laboratory research programs in the areas of radiation therapy, radiation medicine, radiation physics, radiation biology, and radioimmune and inorganic chemistry. This position involves conducting clinical and laboratory studies; supervising junior investigators and co-leading a coordinated residency training program in radiation oncology which encompasses patient populations from the National Institutes of Health, the National Naval Medical Center, and the Walter Reed Army Medical Center. Moreover, the Chief of the Radiation Oncology Branch will be the primary spokesperson for the Division of Clinical Sciences for matters pertaining to radiation oncology. The Radiation Oncology Branch has an operating budget of $6.4 million, 16,000 square feet of laboratory, clinic and office space, and a staff of approximately 65 scientific and support personnel.

This is a civil service position with an annual salary range of $150,000 to $200,000 depending upon the applicant’s qualifications.

All applications should include the following: A letter expressing interest in the position; a statement of research interest; a career synopsis and brief bibliography; a current curriculum vitae and complete bibliography; and the names and addresses of five references. A list of the requirements or additional information about the position may be obtained by contacting Ms. Debbie Breedlove at the address listed below.

Applications should be sent to:

Ms. Debbie Breedlove  
Administrative Resource Center 31  
National Cancer Institute  
National Institutes of Health  
Building 31, Room 3A20  
31 Center Drive—MSC 2440  
Bethesda, Maryland 20892-2440  
Telephone: (301) 402-5736  
FAX: (301) 480-0215

Selection for this position will be based solely on merit with no discrimination for non-merit reasons such as race, color, gender, national origin, age, religion, sexual orientation, or physical or mental disability

NIH IS AN EQUAL OPPORTUNITY EMPLOYER
The American Cancer Society is pleased to announce the Clinical Research Training Grant for Junior Faculty (CRTG). This award is intended to provide the resources for junior faculty members to achieve the mentored research training and experience required for successful careers as independent clinical researchers. The purpose of this grant is to support clinical research by individuals with doctoral or equivalent degrees who are not yet fully independent investigators. Through the CRTG, the Society hopes that this program will develop clinical researchers who should then be eligible to apply for the Society’s Research Project Grants as independent beginning investigators.

Candidates for first year Clinical Research Training Grants must be within the first four years of a faculty appointment in their discipline. These awards are intended to support the early development of academic careers which place emphasis on clinical research; individuals with well established careers and substantial research funding should not apply. In addition, candidates for these awards must be citizens or non-citizen nationals of the United States or its possessions or territories, or must have been lawfully admitted to the United States for permanent residence at the time of the application.

This grant provides up to $150,000 per year including indirect costs for a period of one to three years. During the third year, recipients of this grant may apply for a one or two year competitive renewal provided the total time of clinical research training support, irrespective of the source, does not exceed five years. The next application deadlines are March 1, 1998, and October 1, 1998, for awards to begin January 1, 1999, and July 1, 1999, respectively.

To obtain further information or application materials, please contact your local grants administration office. If you are unsure whether your institution received these materials, please contact us at 404-329-7558 or -5734 (voice), 404-321-4669 (fax), or grants@cancer.org (E-mail); we will be happy to provide you with the name of your institutional contact. You may also download an IBM or Macintosh version of these materials from the Society’s home page on the World Wide Web at http://www.cancer.org.