AMERICAN ASSOCIATION FOR CANCER RESEARCH
Research Grants for Young Cancer Scientists

New! Application forms available on-line at http://www.aacr.org

GERTRUDE B. ELION CANCER RESEARCH AWARD
Supported by an Educational Grant from Glaxo Wellcome Oncology

The Gertrude B. Elion Cancer Research Award is a one-year, $30,000 grant for a scientist in the U.S. or Canada engaged in meritorious basic, clinical, or translational research in cancer etiology, diagnosis, treatment, or prevention at the level of Assistant Professor (not yet tenured). The AACR will reimburse the Awardee for travel to the 1999 Annual Meeting in Philadelphia, PA, where Dr. Elion will personally present this Award.

Eligibility/Selection Process
Candidates must have completed postdoctoral studies or clinical fellowships not later than July 1 of the Award year, and ordinarily not more than five years earlier. Tenured faculty in academia, federal government employees, and employees of private industry are not eligible for this award. A Candidate need not be a member of the AACR at the time of application, but must be nominated by a Member of the AACR. Associate Members may not be nominators. Applications are evaluated by a Committee consisting of AACR Members who are experts in basic, clinical, translational, and prevention research. Application deadline: December 15, 1998.

AACR RESEARCH FELLOWSHIPS
For Young Scientists at the Postdoctoral or Clinical Fellow Level
New! Some Two-Year Fellowships

The AACR Research Fellowships in Clinical, Translational, Basic, and Prevention Research foster meritorious cancer research in North, Central, or South America by young scientists currently at the postdoctoral or clinical research fellow level. Sponsored by Amgen, Bristol-Myers Squibb Oncology, Cancer Research Foundation of America, the Sidney Kimmel Foundation for Cancer Research, AACR, and others, the AACR Fellowships provide either one or two years of salary support at the rate of $30,000 per annum. Those awarded two-year grants who receive a junior faculty appointment in the second year may use the funds for non-salary research expenses in connection with the new position.

Eligibility/Selection Process
Candidates must have completed the M.D., Ph.D., or other doctoral degree. Candidates must currently be a postdoctoral or clinical research fellow and must have been a fellow for at least two years but not more than five years prior to the year of the award. Academic faculty, graduate or medical students, medical residents, permanent government employees, employees of private industry, and individuals who will receive fellowships from similar programs during the award year are not eligible. A candidate need not be a member of the AACR at the time of application, but he or she must be nominated by an AACR Member, and non-members must submit an acceptable application for membership with the fellowship application. Associate Members may not be nominators. Applications are evaluated by a Committee consisting of AACR Members who are experts in basic, clinical, translational, and prevention research. Application deadline: January 15, 1999.

For Further Information
AMERICAN ASSOCIATION FOR CANCER RESEARCH
Public Ledger Building, Suite 826
150 South Independence Mall West
Philadelphia, PA 19106-3483
Telephone: (215) 440-9300 FAX: (215) 440-9372 E-mail: horst@aacr.org
Cancer Epidemiology, Biomarkers & Prevention

An Official Journal of the American Association for Cancer Research • Cosponsored by the American Society of Preventive Oncology

American Association for Cancer Research, Inc.
Executive Director and Director of Publications
Margaret Fou
Publications Staff
Associate Director of Publications
Mary Anne Mennie
Manager, Editorial Services
Heide M. Pusatay
Staff Editors
Michael J. Beveridge
Kathleen C. Assenmacher
Pamela A. Arnold
Ronald M. Vitale
Staff Assistant
Mary Ellen Pongring
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. Blustein
Controller
Joan D. Ritchie
Manager, Meetings and Exhibits
Jeffrey M. Ruben
Meeting Planner
Carole L. Kanoff
Public Information Coordinator
Jenny Anne Hoest-Martz
Assistant to the Executive Director
Ruth E. Forsman
Membership Development Coordinator
Robin E. Felder
Administrative Assistant
Margaret A. Pickels
Systems Specialist
Lydia J. Rodriguez
Secretary
Malika L. Wright
Editorial Assistant
Diana F. Cortes
Office Clerk
James J. Waters
Data Entry Clerk
Robert A. Simms II

Editor-in-Chief
Frederick P. Li

Senior Editors
Epidemiology
John D. Potter
Biomarkers
Fred F. Kadlubar
Prevention
David S. Alberts
Behavioral Sciences
Caryn E. Lerman

Associate Editors
Christine B. Ambrosone
W. Robert Bruce
Daniel A. Casciano
Webster K. Cavenee
Paul F. Engstrom
Joseph F. Fraumeni, Jr.
Karen Glanz
Ellen R. Gritz
Curtis C. Harris
Stephen S. Hecht
Laurence N. Kolonel
W. Thomas London
James R. Marshall
Abraham M. Y. Nomura
James A. Swenberg
Steven R. Tannenbaum
Alice S. Whittemore
Chung S. Yang
Mimi C. Yu

Assistant Editor
Arlene F. Kantor

Editorial Advisory Board
Hans-Olov Adami
Bruce K. Armstrong
Helmut Bartsch
Valerie Beral
Leslie Bernstein
John S. Bertram
Joan R. Bloom
William J. Blot

John D. Boice, Jr.
George E. Bonney
Rober M. Bostick
Ricardo R. Brentani
Eva Buatti
Neil E. Caporaso
Wong-Ho Chow
Philip Cole
K. Michael Cummings
Susan J. Curry
Janet Daling
Mary Daly
Eduardo DeStefani
Virginia L. Ernst
Michael Fiore
Elizabeth T. H. Fontham
David Forman
Eduardo L. Franco
Yu-Tang Gao
E. Robert Greenberg
Raymond S. Greenberg
Peter Greenwald
F. Peter Guengerich
Rodrigo Guerrero
Clark W. Heath, Jr.
Kathy J. Helzlsouer
Elizabeth A. Holly
Waun Ki Hong
Geoffrey R. Howe
Mary Claire King
Leo J. Kinlen
Paul Kleihues
Alfred G. Knudson, Jr.
Bernard Levin
Lance A. Liotta
Martin Lipkin
Richard R. Love
Thomas Mack
Frank L. Meyeskens, Jr.
Christopher J. Michjeda
Rodney F. Minchin
John D. Minna
Ruggero Montesano

John J. Mulvihill
Alvaro Muñoz
Nubia Muñoz
Alfred I. Neugut
Gilbert S. Omenn
C. Tracy Orleans
David L. Page
Frederica Perera
Nicholas L. Petrikas
John P. Pierce
Miriam C. Poirier
Bruce A. J. Ponder
Ross Prentice
Barbara Rimer
Nathaniel Rothman
George C. Roush
Jose Russo
Jonathan M. Samet
Arthur Schatzkin
Mark H. Schifman
David Schottenfeld
Paul A. Schulte
Peter Shields
Roy E. Shore
Margaret R. Spitz
Louise C. Strong
Takashi Sugimura
G. Marie Swanson
Eiti Tahara
Bruce Trock
Sally Vernon
Michael J. Wargovich
Lee W. Wattenberg
I. Bernard Weinstein
John H. Weisburger
Noel S. Weiss
Ainsley Weston
Walter C. Willett
Rodger J. Winn
Gerald N. Wogan
Sandra R. Wolman
Ernst L. Wynder
Regina Ziegler

Cancer Epidemiology, Biomarkers & Prevention is published monthly, one volume annually, 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 [Telephone: (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, Shimahara 1-chome, Minato-ku, Tokyo 105, Japan. Tel. (03) 502-6471. Nonmembers of the AACR within the United States may subscribe to Volume 7 (1998) of Cancer Epidemiology, Biomarkers & Prevention at the rate of $110 (individual nonmembers) or $285 (institutional nonmembers), including postage. Institutional and individual nonmembers outside of the United States should add $40 to their respective rates to offset periodicals postage costs, which covers the cost of shipping journals by 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: Member Services, AACR, 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. Accelerated mailing of all AACR journals to AACR members in Japan is supported by a generous grant from the Banyu Pharmaceutical Company, Tsukuba, Japan.
Annual Dues
The annual dues of active members of the AACC are $175, $55 of which may be applied toward a subscription to Cancer Epidemiology, Biomarkers & Prevention. 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, AACC, Public Ledger Bldg., Suite 826, Philadelphia, PA 19106-3483.

Submission of Manuscripts
Cancer Epidemiology, Biomarkers & Prevention publishes original research on cancer causation and prevention in humans, linking three previously unintegrated disciplines: epidemiology, biomarkers, and prevention. Topics include descriptive, analytical, biochemical, and molecular epidemiology; the use of biomarkers to study the neoplastic and preneoplastic processes in humans; chemoprevention and other types of prevention trials; and the role of behavioral factors in cancer etiology and prevention. Manuscripts that address individual subjects in any of the three disciplines are welcome as well as manuscripts with an interdisciplinary approach. All submissions undergo peer review. Papers should be sent to: Cancer Epidemiology, Biomarkers & Prevention, AACC Publications Department, Public Ledger Building, Suite 826, 150 South Independence Mall West, Philadelphia, PA 19106-3483. See Instructions for Authors (page i of this issue) for further information concerning submissions.

Back Issues and Single Copy Sales of the Journal
Copies of back stock of the journal may be ordered from AACC Subscription Office, P. O. Box 11806, Birmingham, AL 35202 (Telephone: (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 $3.00/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 by approximately the 7th day of the month of issue. Inquiries about advertising should be directed to: M. J. Mrvica Associates, Inc., 2 West Taunton Avenue, Berlin, NJ 08009 (Telephone: (609) 768-9360; FAX: (609) 753-0064).

Copyright and Permissions
Authors who wish to publish in Cancer Epidemiology, Biomarkers & Prevention must formally transfer copyright to the proprietor of the journal, the AACC, Inc. It is understood by this transfer that the authors relinquish all exclusive rights of copyright ownership, including without limitation rights of reproduction, derivation, distribution, sale, and display of the work, in whole or in part, in any and all forms of media now or hereafter known.

Authors who prepare their articles as part of their official duties as employees of the U.S. Federal Government are not required to transfer copyright to the AACC, 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 AACC, 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 AACC 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 AACC.

Those who wish to photocopy articles should contact the AACC Publications Department (Telephone: (215) 440-9300; FAX: (215) 440-9355).

No responsibility is accepted by the Editors, by the AACC, Inc., by the American Society of Preventive Oncology, or by Cadmus Journal Services for the opinions expressed by contributors or for the content of the advertisements.

Cancer Epidemiology, Biomarkers & Prevention is indexed in Chemical Abstracts, Current Contents/CM®, Index Medicus, MEDLINE, and the BIOSIS Previews® Database. This journal is printed on acid-free paper.
AMERICAN ASSOCIATION FOR CANCER RESEARCH

The American Association for Cancer Research (AACR) is a professional society of over 11,000 scientists and physicians involved in all aspects of basic, clinical, and translational cancer research. Members of the AACR enjoy:

- subscriptions to Cancer Research, Cell Growth & Differentiation (CG&D), Cancer Epidemiology, Biomarkers & Prevention, and Clinical Cancer Research at reduced member rates
- reduced registration rates at the AACR Annual Meeting, Special Conferences, and International Meetings
- Employment Register, Directory of Members, public education activities, and many other benefits

Special programs to provide enhanced career development opportunities for minority scientists include:

- Session on Career Development at Annual Meeting
- Mentorship Program
- Travel Awards to Scientific Meetings

American Association for Cancer Research
Public Ledger Building, Suite 826
150 S. Independence Mall West
Philadelphia, PA 19106-3483
Telephone: (215) 440-9300
FAX: (215) 440-9313

PROGRAM ADMINISTRATOR
for the American Association for Cancer Research, Inc.
in Philadelphia, PA

An exciting career opportunity in a dynamic and rapidly growing scientific society in the forefront of basic, clinical, and translational cancer research.

The American Association for Cancer Research (AACR) is a professional society of 14,000 scientists and physicians worldwide based in Philadelphia, PA. It serves its members, the greater scientific community, and the general public by publishing four prestigious scientific journals; organizing scientific meetings that present state-of-the-art findings in cancer research; offering unique training opportunities to young investigators; providing outstanding venues for networking, career development, and informal communication; and communicating developments in the field to the lay public.

Responsibilities: Depending on previous experience and skills, the successful applicant will be responsible for one or more of the following areas:

1. Support for the organizers of meetings, conferences, and training workshops in the development of the scientific program
2. Support for committees, task forces, and member interest groups and implementation of their initiatives
3. Preparation of grant proposals and submission of reports to funding agencies
4. Evaluation of programs
5. Communication with other scientific societies

Skills/Qualifications required:

1. Seven to ten years’ work experience in biomedical research (preferably cancer research) and/or administration (preferably nonprofit association management)
2. Graduate degree
3. Excellent written and oral communication skills
4. Versatility, accuracy, computer literacy, energy
5. Excellent analytical, administrative, and organizational skills
6. Familiarity with needs and practices of the scientific community

Competitive salary and excellent benefits package

 Replies: Covering letter including description of qualifications for the position, salary history, c.v., and writing sample(s) to

Adam D. Blistein, Ph.D.
Director of Administration
American Association for Cancer Research
Public Ledger Building, Suite 826
150 S. Independence Mall West
Philadelphia, PA 19106-3483

No telephone calls will be accepted.
The AACR is an equal employment opportunity employer.
The National Cancer Institute seeks a Chief for its Cancer Training Branch (CTB). This position oversees the planning, development and implementation of all NCI grant programs in research training and career development as they relate to the basic, clinical and population sciences. Responsibilities also include all cancer education activities intended for medical and public health professionals and the lay public. The CTB also oversees a comprehensive program for recruiting and sustaining underserved populations in cancer research. Through its interactions with extramural scientists in workshops and at national meetings and with NCI advisory groups, the CTB plans, develops and implements the strategies and award mechanisms for training the next generation of cancer researchers. The CTB works closely with the applicants who are competing for extramural National Research Service Awards, Career Development Awards and Education Grants and sets priorities for allocation of available resources to meet the NCI’s mission and objectives. This is a position that must interact and communicate effectively with the entire cancer research community, as well as work closely with all organization- al units of the NCI.

**Salary Range and Benefits:** Salary ranges from $77,798 to $101,142 per annum. Benefits include health and life insurance, retirement, paid holidays, vacation and sick leave. Salary includes locality pay.

**Basic Qualifications:** U.S. citizenship is required. Applicants must meet the basic experience and educational qualification requirements for U.S. government Medical Officer, Biologist, Microbiologist, Geneticist, Health Science Administrator or Chemist positions. In order for the qualifications to be validated and considered, it is mandatory that you submit the following with your application: A. An undergraduate and graduate transcript or course list which includes grades, and semester hours received per course for all courses; B. A current curriculum vitae; and C. A description of your proficiency in the following Knowledge, Skills and Abilities (KSAs):

1. General knowledge or familiarity with the basic, clinical and population sciences relating to cancer.
2. Knowledge and familiarity with the fundamental issues and problems related to the training and career development of individuals in multiple scientific disciplines.
3. Ability to plan, develop, and implement new or expanded activities in area of biomedical research or training to achieve specific goals and objectives.
4. Ability to work effectively with scientist, science administrators, or groups of scientists representing multiple scientific disciplines and perspectives to achieve consensus on broad issues.
5. Ability to lead and manage a research grant program or equivalent as it relates to broad scientific objectives.

**Application Procedures:** The NCI recruitment bulletin for this position contains complete application procedures and lists all mandatory information which you must submit in your application. To obtain the recruiting bulletin, call 1-800-728-JOBS (for local calls, 301-594-2953). When prompted, enter the “Fax ID Number” 1878 for CA-98-1935. You will be prompted for your fax machine number. If you have any questions on qualification requirements or application procedures, or if you wish to obtain a position description or other information, please call (301) 402-2812.

*Please submit your resume, SF-171 Application for Federal Employment or OF-612 Optional Application Form by the closing date to:*