Instructions for Authors

Scope

Cancer Epidemiology, Biomarkers & Prevention publishes original research on cancer causation and prevention in humans. The following topics are of special interest: 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.

Particular attention will be given to the identification of factors associated with various aspects of the carcinogenic process, including genetic susceptibility, host factors, infectious agents, chemical and physical carcinogens, environmental contaminants, dietary components and behavioral factors such as tobacco use and sun exposure.

Besides welcoming manuscripts that address individual subjects in any of the three disciplines, the Editors encourage the submission of manuscripts with an interdisciplinary approach.

Contents

- Original research articles
- Invited editorials
- Selected review articles
- Short communications
- Letters to the editor
- Meeting reports
- AACR and ASPO news

Editorial Policy

When a manuscript is received for consideration, the Editors assume that no similar paper has been or will be submitted for publication elsewhere. Further, it is understood that all authors listed on a manuscript have agreed to its submission. Upon acceptance, authors must transfer copyright to the American Association for Cancer Research, Inc., the publisher and copyright owner of the journal, prior to publication. Once an article is accepted for publication in *Cancer Epidemiology, Biomarkers & Prevention*, the information therein is embargoed from reporting by the media until the mail date of the issue in which the article appears. The Editors endorse the principles embodied in the Declaration of Helsinki and expect that all investigations involving humans will have been performed in accordance with these principles. A copy of the Declaration is available from the World Medical Association, Bôlte Postale 63, 01212, Ferney-Voltaire, Cedex, France.

Journal policy requires that authors, reviewers, and Associate Editors reveal to the Editor-in-Chief any relationships that they believe could be construed as causing a conflict of interest with regard to the manuscript submitted for review.

Manuscript Submission

Mail manuscripts to ***Cancer Epidemiology, Biomarkers & Prevention***, AACR Publications Department, Public Ledger Building, Suite 826, 150 South Independence Mall West, Philadelphia, PA 19106-3483. Submit four original sets (not photocopies) of illustrations along with four copies of the manuscript. Illustrations will be returned to the author if the paper is not accepted for publication. If a manuscript is closely related to papers that are in press or have been submitted elsewhere, please provide copies of those papers with your submission. FAX transmission and overnight delivery service will be used to expedite review and publication.

Publication Fees

A page charge of $35 per printed page will be levied on all manuscripts accepted for publication. It is understood at the time of submission that the author(s) agree to pay this charge in the event of publication. Under exceptional circumstances, when no grant or other source of support exists, the author(s) may apply to Dr. Margaret Foti, Director of Publications, AACR Publications Department (see end of page for address) at the time of submission for a waiver of the page charges. All such applications must be countersigned by an appropriate institutional official stating that no funds are available for the payment of page charges.

Format

Manuscripts must be written succinctly in clear, grammatical English. Define abbreviations in an inclusive footnote to the text. Double-space on 8 1/2 × 11-inch paper. Dot-matrix printing is not acceptable. The format is as follows:

1. Title page, including title, authors, and affiliations;
2. A running title of fewer than 50 characters;
3. Text, arranged in this order: Abstract (not more than 250 words), Introduction, Materials and Methods, Results, Discussion, Acknowledgments, References;
4. Footnotes, on a page separate from the text. Designate footnotes consecutively with superscript Arabic numerals;
5. Tables, on pages separate from the text, with descriptive titles and/or legends;
6. Figure legends, on pages separate from the text. Define all symbols and include staining for halftones, where applicable.

References

Include only those articles that have been published or are in press. Unpublished data or personal communications must be cited as footnotes to the text. Personal communications should be substantiated by a letter of permission.

Number references in the order of their first mention in the text. Cite only the number assigned to the reference. References must be double-spaced.

Sample references:

1. Fontham, E. T. H., Correa, P., Wu-Williams, A., Reynolds, P., Greenberg, R. S., Buffler, P. A., Chen, V. W., Boyd, P., Alterman, T., Austin, D. F., Liff, J., and Greenberg, S. D. Lung cancer in nonsmoking women: A multicenter case-control study. Cancer Epidemiol., Biomarkers & Prev., *1:* 35–43, 1991.
2. Reznikoff, C. A., Swaminathan, S., and Verma, A. K. Cultured normal human uroepithelial cells: a new system for *in vitro* carcinogenesis studies. *In*: M. Webber and L. Sikeley (eds.), *In Vitro* Models for Cancer Research, pp. 63–101. Boca Raton, FL: CRC Press, 1986.

Illustrations

Provide four original sets of illustrations (whether line-cut drawings or halftones). Label each figure in pencil on the reverse side with the first author's name, figure number, and an arrow indicating top of figure. Letters and numbers on illustrations should not be smaller than 6-point or larger than 12-point type. All illustrations will be published at a width of approximately 3 inches (8 cm) unless the author requests a greater width. Use tissue overlays to indicate important areas of the photographs that must be reproduced with the greatest fidelity.

Authors are encouraged to submit color figures. The expense of reproducing color photographs must be offset partially by the author. The cost of color reproduction charged to authors is **$975 per color figure**. Submit color illustrations on flexible backing.

Proofs

Page proofs must be returned to the office of the American Association for Cancer Research within 24 hours of receipt. Return proofs by overnight mail. ***Proofs not received by the deadline will be published without the authors' corrections.*** Accepted manuscripts are regarded as final copy and should not be altered substantially in proof. Extensive alterations could cause publication delays, and authors will be charged for excessive changes in proof.

Typesetting Manuscripts from Computer Disks

Cancer Epidemiology, Biomarkers & Prevention requests the submission of disks to expedite production of accepted manuscripts. If your article is accepted for publication, you will receive instructions regarding disk submission and a form which must be completed and returned with your disk to the AACR Publications Department within 48 hours of notification of acceptance. It is the author's responsibility to ensure that the material on the disk matches the final accepted version of the manuscript.

For More Information, Contact:

Publications Department, American Association for Cancer Research, Public Ledger Building, 150 South Independence Mall West, Suite 826, Philadelphia, PA 19106-3483. Telephone: (215)440-9300; FAX: (215)440-9355.

AMERICAN ASSOCIATION FOR CANCER RESEARCH

1998 RESEARCH FELLOWSHIPS

For Young Scientists at the Postdoctoral or Clinical Fellow Level

- **1998-1999 Research Fellowship in Basic Research:** This Fellowship, sponsored by the AACR, will provide a two-year grant of $30,000 per year to a young scientist in North, Central, or South America engaged in meritorious basic cancer research.
- **1998-1999 Research Fellowship in Clinical/Translational Research:** This Fellowship, sponsored by Amgen, Inc., will provide a two-year grant of $30,000 per year to a young scientist in North, Central, or South America engaged in meritorious clinical or translational cancer research.
- **1998-1999 Research Fellowship in Clinical Research:** This Fellowship, sponsored by Bristol-Myers Squibb Oncology, will provide a two-year grant of $30,000 per year to a young scientist in North, Central, or South America engaged in meritorious clinical cancer research.
- **1998-1999 Research Fellowship in Prevention Research:** This Fellowship, sponsored by the Cancer Research Foundation of America, will provide a two-year grant of $30,000 per year to a young scientist in North, Central, or South America engaged in meritorious cancer prevention research.
- **1998 Research Fellowships in Basic Research:** Two Fellowships, sponsored by The Sidney Kimmel Foundation for Cancer Research and Hoechst Marion Roussel, will each provide a one-year grant of $30,000 to a young scientist in North, Central, or South America engaged in meritorious basic cancer research.

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 holding the rank of assistant professor or higher, 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 will receive careful scientific evaluation by a prestigious, multidisciplinary Committee consisting of AACR Members who are experts in basic, clinical, and translational cancer research. Applications must be submitted in complete form by **January 15, 1998.**

For Further Information/Application Forms
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

FIRST ANNOUNCEMENT

CALL FOR ABSTRACTS

89th Annual Meeting

American Association for Cancer Research

March 28 – April 1, 1998

New Orleans, Louisiana

An Exciting Multidisciplinary Program for Laboratory and Clinical Cancer Researchers

In This Booklet:

- Abstract Submission Forms and Instructions
- Preliminary Program Information
- Information on Awards for Young Basic and Clinical Investigators
- AACR Membership Application Forms

AMERICAN ASSOCIATION FOR CANCER RESEARCH
89TH ANNUAL MEETING

Frank J. Rauscher III, Program Committee Chairperson

Ernest N. Morial Convention Center, New Orleans, LA
March 28-April 1, 1998

Preliminary List of Topics for Symposia and Meet-the-Expert Sunrise Sessions

- Inherited Cancer Susceptibility Syndromes: Genetics, Genes, and Function
- Emerging Concepts in Individual Cancer Susceptibility
- Tobacco and Lung Carcinogenesis: Genetics, Biology, and Etiology
- Organ-Site Specific Tumorigenesis: Basic Science and Clinical Aspects of
  - Breast and Ovarian Cancer
  - Prostate Cancer
  - Gastrointestinal Cancer
  - Hematologic Malignancies
- Tumor Physiology: Tumor-Stromal, Cell-Cell, and Microenvironment Interactions
- An Integrated Approach to Angiogenesis: Inducers and Inhibitors from the Bench to the Bedside
- Wnt Signalling Pathways in Human Tumorigenesis: APC/Beta Catenin/TCF-LEF
- Cell Death Signalling Pathways: Caspase Cascades and Effectors/Initiators of Apoptosis
- The bcl-2 Family: Regulation and Effectors
- Transcriptional Regulation of the Neoplastic Phenotype
- Developmental Biology-based Approaches to Tumorigenesis: Genetic Control of Pattern Formation and Organogenesis
- Reconstruction of Human Tumorigenesis and Progression: Cancer Genetics in Model Organisms
- New Concepts in Genome Damage in Cancer: Initiation and Progression
- Molecular Determinants of Cellular and Tumor Responses to Radiation
- New Mechanisms of Action of Viral and Cellular Oncogenes
- Tumor Virology: Molecular Biology and Etiology
- Genetic Approaches to Diagnosis: The Impact of Molecular Medicine on Early Detection and Diagnosis
- The Molecular Basis of Immune Recognition: Basic Concepts with Therapeutic Implications
- Advances in Cancer Vaccine Development
- Successes in Oncogene-Based Drug Targeting: Selectivity and Specificity?
- Molecular Diversity-based Approaches to Anticancer Drug Design
- New Concepts in Antimetabolites: Basic Science and Clinical Trials
- Restoring Drug Sensitivity to Tumors: New Concepts from Tumor Biology and Physiology
- Progress in Cancer Gene Therapy: New Concepts/Targets and Clinical Trial Reports
- Molecular Targets and Endpoints for Chemoprevention
- The Latest in Telomere and Telomerase Function: Proof of Principle?
- Histone (De) Acetylation and Chromatin Remodeling
- DNA Repair
- Advances in Drug Resistance: Basic and Clinical
- Growth Factor Signaling
- Antisense in Clinical Trials
- Nuclear Transports
- Integrin Signaling
- Metalloproteinases
- Radiation Sensitization
- Myelodysplastic Syndrome
- Cytokine Signaling
- Cell Cycle Control
- Leukemia and Solid Tumor Translocations
- COX-2 Inhibitors
- Nuclear Hormone Receptors
- Chemoprevention Clinical Trials
- Gene Transfer to Hematopoietic Progenitors
- IL-12: Biological and Clinical Developments
- Immunotherapy and Costimulatory Molecules
- B-Cell Lymphomas
- Emerging Issues in Molecular Epidemiology
- Immunostimulatory Sequences
- Mechanisms of p53 Action
- IGF-1 and Cancer
- Topoisomerases
- Brain Tumors
- Vascular Permeability
- Animal Models for Chemoprevention Issues
- Invasion and Metastasis
- Carbohydrates and Cancer
- Genome Project Update
- Fidelity of DNA Replication
- Psychosocial Aspects of Genetic Diagnosis
- Melanoma
- Taxanes, Epibotulins, and Tubulins
- Antibody Therapy
- Combination of Chemotherapy/Biotherapy

TABLE OF CONTENTS

Be sure to fill out and return the acknowledgment card included with these instructions.

LETTER FROM THE PROGRAM CHAIRPERSON

Dear Colleague:

On behalf of the President, Dr. Donald S. Coffey, and the 1998 Program Committee, it is my distinct pleasure to have this opportunity to introduce, highlight, and enthusiastically endorse our plans for the 89th Annual Meeting of the AACR in New Orleans, March 28-April 1, 1998.

I strongly urge you to submit an abstract of your most recent research and to participate in this most important function of the AACR's mission. As Chairperson of the Program Committee for the meeting, I have endeavored to assemble an outstanding scientific program which will deliver a comprehensive, state-of-the-art synthesis of the current progress, opportunities, and problems occurring in both basic and clinical aspects of cancer research. Our overriding goal has been to create a truly multidisciplinary program which will appeal to cancer researchers in all areas of expertise, spanning basic, translational and clinical research. As the war on cancer approaches the millennium, the constant crossfertilization of ideas and approaches utilized by investigators from diverse scientific disciplines will continue to catalyze our successes in this war. The AACR Annual Meeting has been and will continue to be the most important international gathering for stimulating and fostering these interactions. With the help of an outstanding Program Committee (see the inside back cover of this booklet), as detailed below, we have made a special effort this year to make your participation in the meeting both easier and more rewarding scientifically.

Our goals in designing and planning this meeting have been strongly influenced by the recognition that, recently, some of the most significant progress in cancer research has resulted from breakthroughs in very specialized and often narrow areas of the field as well as discoveries made possible by new collaborations across previously unrelated disciplines. In this climate, when scientific boundaries are changing and new research directions are emerging, attendance at the AACR Annual Meeting has become more important than ever. As always, the Annual Meeting offers the latest findings in your particular area of expertise. In addition, it offers unparalleled opportunities to hear and meet the researchers in other subdisciplines of the field who are making discoveries that will lead to your next advances. In short, the AACR Annual Meeting is a unique opportunity to explore every aspect of basic, clinical, and translational cancer research and to obtain the information and form the collaborations that are essential for both your current and future investigations.

To make it even easier for you to tap into this wealth of information and expertise, we have thoroughly revised the abstract submission categories. Please take the time to read through the expanded list of categories on Pages 8-10 before selecting a designation for your abstract; we think you will agree that they are more current and comprehensive. Furthermore, we expect this revision to improve the meeting in several important ways:

- Selection of an abstract category will be easier for those who, in the past, have been uncertain about the best category for their work or about the suitability of the AACR meeting for their presentations.
- The categories are presented in an order that we feel better reflects the actual problem of cancer, the path of recent progress in the field, and the likely synergies across subdisciplines. In choosing your specific abstract subclassification, you can more easily identify the appropriate major category (*e.g.,* Molecular Biology, Clinical Investigations, Immunology) in which your work belongs.
- Abstracts are more likely to be reviewed and scheduled by the appropriate section of the Program Committee. We anticipate that the result will be more coherent and stimulating sessions of proffered papers.

Our goal in this First Announcement is to present this expanded abstract category list and to disseminate the necessary abstract forms to the scientific community as soon as possible. In about a month you will receive a Second Announcement that will again contain complete abstract submission information, but which will also contain

- preliminary information on the opening plenary session, symposia, "meet-the- expert" sunrise sessions, and controversy sessions.
- the advance registration form
- information on travel to and hotel accommodations in New Orleans
- employment register forms
- other important information on the meeting

The Program Committee recently completed an intensive meeting at which it selected topics for the major sessions of invited speakers. I am very excited about the sessions that are currently in development, and I urge you to look for the list in the Second Announcement and also to check the AACR Website periodically (http://www.aacr.org) for updates.

It is a privilege to serve you as Program Committee Chairperson at this exciting time in cancer research. Please join me in making the 89th Annual Meeting of the AACR the most important in the Association's history.

Very truly yours,

Frank J. Rauscher III, Ph.D.
Program Chairperson

Membership Card and below the member's name in the AACR *Directory of Members*. The SPONSOR must sign the abstract form.

4. A member or nonmember may be listed as a coauthor on more than one abstract, provided that each abstract has a different member SPONSOR.

5. The SPONSOR is obligated to ascertain that all authors are aware of the content of the abstract. Sponsorship of an abstract implies support for the data and the interpretations contained therein.

Please do not submit applications for active or corresponding membership along with your abstracts.

COMPLIANCE WITH THESE REGULATIONS IS THE RESPONSIBILITY OF THE SPONSOR. Adherence to these rules will be verified. Violations will result in the rejection and return of the abstract to the SPONSOR without consideration by the Program Committee.

ABSTRACT SUBMISSION FEE

A fee of US$40 will be assessed for each abstract submitted for consideration by the Program Committee. This fee offsets some of the costs of processing the abstract. Each abstract must be accompanied by a check for US$40 payable to the American Association for Cancer Research, Inc. - OR - authorization must be provided to charge this fee to a credit card that is accepted by AACR (see Item 8 on the abstract form). All checks must be drawn on a United States bank. Please list the PRESENTER's name on the check. NOTE: Purchase orders will not be accepted.

In cases of the voluntary withdrawal of an abstract by the author, the return of the abstract because of violation of abstract regulations, or the rejection of the abstract for presentation, the submission fee will not be refunded.

INSTRUCTIONS FOR PREPARATION AND SUBMISSION OF ABSTRACTS

Each submitted abstract must carry the name, AACR Member Number, and signature of the SPONSOR on the appropriate lines of the abstract form. Each AACR member may sponsor only one abstract.

CONTENT OF ABSTRACTS

Authors who submit an abstract of a paper confirm that they have not previously published these data, that they have not previously presented them at a national scientific meeting, and that they are not planning to present or publish them prior to the dates of the AACR Annual Meeting.

Members of the Program Committee will evaluate the scientific quality of the submitted abstract on the basis of the following criteria: novelty of the research, significance of the findings, and clarity. Authors should be particularly cognizant of the importance of setting forth the objectives and hypotheses of the study in a clear, succinct manner and of summarizing the new, unpublished results. If the abstract is poorly written such that the Program Committee cannot determine its novelty and importance, the paper will not be accepted for presentation at the annual meeting.

1. Abstracts must describe in a succinct manner the purposes and results of the research so that the quality, originality, and comprehensiveness of the work can be evaluated by the Program Committee. Each abstract should contain: (a) an introductory sentence indicating the purposes of the study; (b) a brief description of pertinent experimental procedures; (c) a summary of the new, unpublished data; and (d) a statement of the conclusions. Authors must accept sole responsibility for the statements in their abstracts. Abstracts should be carefully proofread to avoid errors in the published literature.

2. Titles should be indicative of the content of the abstract. All words necessary to identify the subject matter should be included in the title to facilitate electronic retrieval (CD-ROM or online searches). Avoid nonstandard abbreviations in abstract titles.

3. Abbreviations may be used in the body of an abstract if they are defined at their first mention in the text. Complex therapeutic regimens must be identified.

4. NOTE: The AACR is committed to the advancement of cancer research and the cure of cancer through the facilitation of communication and dissemination of knowledge among scientists and others dedicated to the cancer problem. Therefore, the AACR requires strict compliance with the following regulations: When biological or chemical data pertaining to chemical entities are presented, the chemical structure, method of preparation, and patent or reference numbers must be provided. If for any reason this information cannot be presented at the meeting, the abstract on this work should not be submitted for consideration.

5. Because of administrative and time constraints, supplementary data submitted along with the abstract cannot be transmitted to the Program Committee for review.

GENERAL INSTRUCTIONS FOR SUBMISSION OF ABSTRACTS

The AACR will not accept abstracts for the 1998 Annual Meeting via Internet submission or by fax or e-mail delivery.

Abstracts must be submitted on the official 1998 AACR abstract form. Two abstract forms are enclosed. Please pass one on to a colleague if you do not need it for your own use. The blank form may also be photocopied for use by others. Additional abstract forms may be obtained by calling or by writing to the AACR Office. The blank form is also available as a PDF document that can be downloaded and printed from the AACR Website: <http://www.aacr.org/meeting.htm>. Instructions for completing the abstract form are given on the following pages.

To facilitate typesetting, authors are requested to send a floppy disk containing the abstract along with the required copies of the official abstract form. A list of acceptable word processing packages and detailed instructions for submitting the floppy disk are given on the following pages. **The disk file must match the accompanying paper version of the abstract. If we discover any discrepancy, the paper copy will be considered the final version.** If we cannot open or use your disk, or if you cannot supply a disk, we will typeset the abstract from the paper copy.

The accuracy of the submitted abstract is the responsibility of the authors. Every effort will be made to reproduce the abstract exactly as submitted on the abstract form. Errors made on your submitted abstract are therefore likely to appear in print. Careful preparation and proofreading prior to submission are essential. NOTE: AACR does not assume responsibility for errors in conversion of customized software, newly released software, or special characters.

A Temporary Abstract Number will be assigned to your abstract when it arrives at the AACR Office. This number will be listed on the card that is returned to you acknowledging receipt of your abstract. Please reference the Temporary Abstract Number in all subsequent communications with the AACR Office.

ABSTRACT FORM

The official abstract form must be completely filled out and signed in accordance with the instructions. Three (3) photocopies of the completed form must also be submitted. In addition to typing the abstract within the box according to the instructions given below, please provide the information and signatures requested on the abstract form and accompanying materials as follows. (**NOTE:** The numbered headings below correspond to the numbers on the abstract form.)

1. **Category and Subclassification.** Choose **ONLY ONE** category and subclassification. Indicate the category and subclassification in which your paper belongs by typing the appropriate five-character code in the blocks provided. A list of codes for the categories and subclassifications appears on Pages 8-10 of this booklet. The list is also available at the AACR Website. These designations will serve as a guide to the Program Committee in the grouping of abstracts but will not necessarily be the actual titles of scientific sessions to be held at the annual meeting.

2. **Sponsor of the Abstract.** Type the AACR member number, name, address, telephone and FAX numbers, and e-mail address of the member using his or her membership privilege to SPONSOR the abstract. (Member numbers can be found on an individual's membership card and in the AACR *Directory of Members.*) The SPONSOR, who must be a member of the AACR in good standing through 1997, may SPONSOR only one abstract. (See Page 3 for Sponsorship Regulations.)

3. **Sponsor Signature.** The SPONSOR must sign the form in the space provided to indicate support for the data and interpretations contained in the abstract.

4. **Associate Members Only.** If an associate member is the SPONSOR AND PRESENTER of the abstract, he or she must ask an active or corresponding member in good standing or an emeritus or honorary member to sign Line 4 of the form as an ENDORSEMENT of the work. Type the name and member number of the ENDORSING member on the appropriate lines.

5. **Eligibility for Young Investigator Awards for American and International Scientists.**

A. The AACR is very grateful to the growing number of sponsors who help several hundred young investigators attend the annual meeting each year. Starting in 1998, **ITO EN, Ltd.** is underwriting a major enhancement of the AACR's program of travel grants for both American and International Scientists, *i.e.,* an expanded number of awards for young investigators from Asia. ITO EN has already made a commitment to continue its very generous support of this new program through 2002.

Submission of an abstract by the deadline of October 28 is an absolute prerequisite for receipt of any AACR travel award. Qualified scientists from all countries are therefore encouraged to submit abstracts and to indicate their eligibility for these awards by observing the following instructions: Indicate whether the PRESENTER of the abstract is a medical student, graduate student, physician in training, or postdoctoral fellow from an academic or governmental organization. PRESENTERS who meet these requirements and who are first authors on abstracts given high ratings by the Program Committee for scientific merit may be candidates for a young investigator award. If a PRESENTER is eligible based on the above criteria and is under consideration, a letter confirming his or her status, submitted on the official letterhead of the PRESENTER's institution and signed by the registrar, dean, or department head of that institution, will be requested at a later date.

B. Minority Scholar Awards in Cancer Research are available if the PRESENTER meets the above-mentioned criteria and is African American, Hispanic, American Indian, Native Alaskan, or Native Pacific Islander. Through a generous grant provided by the Comprehensive Minority Biomedical Program of the National Cancer Institute, funds are available to encourage participation in the annual meeting by minority groups which have been traditionally underrepresented in cancer and biomedical research. Eligible scientists are young, full-time predoctoral (graduate or medical) students, postdoctoral fellows, and physicians in training who are either engaged in cancer research, or who have training that could lead to contributions in this field. Only citizens of the United States and Canada or scientists who are permanent residents in those countries may receive one of these awards.

Although preference will be shown to authors of abstracts that have been accepted for presentation at the 1998 AACR Annual Meeting, this is not a requirement for the award. Awardees will be selected on the basis of their qualifications, references from mentors, and an estimation of the potential professional benefit to the awardees. An advisory committee consisting of members of the AACR carefully reviews submitted applications and letters of reference. The award will consist of partial support for the registration, travel, and subsistence expenses incurred in connection with attendance at the annual meeting.

Persons checking this box will receive an application form which must be completed and returned to the AACR by **December 1, 1997.** Applicants will be chosen from both minority institutions and the larger bodies of universities, colleges, and research institutes. If accepted, applicants are expected to attend at least three full days of scientific sessions at the annual meeting and participate in all planned activities for the awardees. They are also required to submit a report commenting on the scientific sessions they attended at the annual meeting and the Minority Scholar Program.

6. **Presenter of Abstract.** Type the name, AACR member number (if applicable), address, telephone and FAX numbers, and e-mail address of the PRESENTER of the paper in the space provided. **The PRESENTER must be one of the authors of the abstract.** It is generally expected that the first author of an abstract will be its PRESENTER.

7. **Presenter Signature.** The PRESENTER of the paper must sign the form in the space provided to acknowledge that the Copyright Transfer/Conflict of Interest Disclosure Form has been completed, and to give the AACR permission to arrange for audiotape recording and the subsequent sale of audiotape cassettes of the papers delivered orally at the 1998 AACR Annual Meeting. Your advance permission for taping in the event that your paper is among those to be recorded is appreciated.

8. **Payment of US$40 Abstract Submission Fee.** Please indicate your method of payment. Remember to list the name of the PRESENTER on your enclosed check. If you want the Abstract Submission Fee (US$40) to be billed to your credit card, please fill in the necessary information and sign in the space provided. Purchase orders cannot be accepted.

Please check all the information you have entered for correctness and adherence to AACR submission rules. Infractions of sponsorship regulations will result in the rejection and return of the abstract to the SPONSOR without consideration by the Program Committee. Infractions of format, including forms submitted without the required signatures, will result in an additional fee of US$40, which will be billed to the SPONSOR.

FORMAT OF ABSTRACTS

Abstracts will be reproduced for publication either by typesetting from the paper copy of the abstract form or, if possible, by using the floppy disk provided by the author (see below for instructions on supplying a floppy disk). We will not accept disks that are unaccompanied by the required paper copies of the official abstract form. **The disk file must match the accompanying paper version of the abstract. If we discover any discrepancy, the paper copy will be considered the final version.**

The accuracy of the submitted abstract is the responsibility of the authors. Every effort will be made to reproduce the abstract exactly as submitted on the abstract form. Errors made on your submitted abstract are therefore likely to appear in print. Careful preparation and proofreading are essential prior to submission. NOTE: AACR does not assume responsibility for errors in conversion of customized software, newly released software, or special characters.

Only abstracts submitted on the official 1998 abstract form will be considered by the Program Committee. Before typing the abstract on the form, read all instructions and examine the sample abstract thoroughly. Prepare your abstract in accordance with the approved format shown in the sample abstract (Page 12). Please note in particular the following regulations concerning format:

Dimensions: The entire abstract, including text, title, authors, and affiliations, must fit within the box provided on the abstract form. The dimensions of the box are 5 inches (12.5 cm) wide x 4 inches (10 cm) high. Do not reduce the abstract mechanically to fit into the box. Type the abstract single spaced.

Type: Abstracts may be printed using laser or ink-jet printers with type no smaller than 10-point. Abstracts may also be prepared using typewriters or daisy-wheel printers with a sharp black ribbon and a printing element no smaller than 12-pitch (elite). Do not use dot matrix printers. **Symbols and special characters should not be created graphically. Instead, use the character set provided in your word processor.** Any symbols that must be drawn by hand should be drawn with black ink.

Title: Use boldface type for the title if possible. The first line of the title should be flush with the left margin of the abstract box. Capitalize only the first letter of the first word; type the rest in lower case except where lower case is incorrect, *e.g.*, "DNA." Avoid nonstandard abbreviations in the title. (See *Cancer Research* Instructions for Authors, Vol. 57: 186-192, 1997, for a list of standard abbreviations.) Type a period at the end of the title.

Authors' Names: Type the authors' names as a group. For each author, type surname first followed by given name and initials. Omit academic degrees. **Do not** use footnote numbers or symbols after the authors' names to refer to their individual affiliations. See next paragraph.

Affiliations: List affiliations as a group at the end of the list of authors' names. For each affiliation, type the name of the institution, city, state in abbreviated form, zip code, and country. We prefer that you do not key the affiliation of each author to his/her name. However, if you are obligated to do so, **do not** use footnote numbers or symbols after an author's name to refer to his/her affiliation. Instead, put the author's initials in parentheses at the end of his/her affiliation.

Text: Begin the text on a separate line after the affiliations, flush with the left margin of the abstract box. Type the text single spaced in one paragraph. Nonstandard abbreviations are permitted in the text of the abstract if they appear in parentheses immediately after the term being abbreviated at the first usage of that term in the text. TABLES, CHARTS, ILLUSTRATIONS, HALFTONES, AND COLOR PHOTOGRAPHS ARE NOT ACCEPTABLE AS PART OF YOUR ABSTRACT AND SHOULD NOT BE SUBMITTED.

SUBMITTING A COPY OF THE ABSTRACT ON FLOPPY DISK

To facilitate typesetting, authors are requested to send a floppy disk containing the abstract along with the required copies of the official abstract form.

SUBMIT ONLY ONE ABSTRACT PER DISK!

Only one abstract per disk will be handled as a submission; any others on that disk will be ignored.

The following is a list of acceptable word processing packages in which to prepare the disk file of the abstract. Please do not convert your file to one of these formats from other word processors; instead, create your file in one of these programs:

Macintosh:	MS Word 4.0, 5.0-5.1, 6.0
	WordPerfect 1.0, 2.0, 3.0
	MacWrite Pro
	Rich Text Format
Windows:	MS Word 2.0, 6.0, 7.0, '97
	WordPerfect 5.0-5.2, 6.0, 7.0
	XyWrite
DOS:	MS Word 5.0
	WordPerfect 4.2, 5.0-5.2, 6.0
	Rich Text Format
	XyWrite

The disk file must match the accompanying paper version of the abstract. If we discover any discrepancy, the paper copy will be considered the final version. If we cannot open or use your disk, or if you cannot supply a disk, we will typeset the abstract from the paper copy. We will not use a disk if we receive it separately from the paper submission of the abstract form.

The accuracy of the submitted abstract is the responsibility of the authors. Every effort will be made to reproduce the abstract exactly as submitted on the abstract form. Errors made on your submitted abstract are therefore likely to appear in print. Careful preparation and proofreading prior to submission are essential. NOTE: AACR does not assume responsibility for errors in conversion of customized software, newly released software, or special characters.

The abstract on disk must meet all the format requirements specified for paper abstract submissions and must fit within the size limits delineated on the abstract form; that is, able to fit within a space 5 inches (12.5 cm) wide x 4 inches (10 cm) high, single-spaced, in 10-point type. Symbols and special characters should not be created graphically. Instead, use the character set provided in your word processor. TABLES, CHARTS, ILLUSTRATIONS, HALFTONES, AND COLOR PHOTOGRAPHS ARE NOT ACCEPTABLE AS PART OF YOUR ABSTRACT AND SHOULD NOT BE SUBMITTED.

Type or print the following information on the outer label of the disk:

— abstract title
— name of the first author
— name of the disk file
— model of the computer used (*e.g.*, IBM/PS2)
— operating system/version (*e.g.*, DOS 3.3)
— word processing program/version (*e.g.*, WordPerfect 5.0)

Insert the disk into a disk mailer or other protective envelope. Clip the disk mailer to the paper copies of the abstract, and enclose them with all the other materials required for abstract submission.

INSTRUCTIONS FOR COMPLETING THE COPYRIGHT TRANSFER/CONFLICT OF INTEREST DISCLOSURE FORM

All PRESENTERS must submit the signed original plus one copy of this completed form along with their abstracts.

Copyright Transfer. The PRESENTER of the paper, as an author of the abstract and on behalf of all the authors, must check the appropriate box and sign this section of the form.

Conflict of Interest Disclosure. The Tulane University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. The AACR has applied to Tulane for accreditation of the Annual Meeting as an educational activity for Category 1 credits towards the Physician's Recognition Award Program of the American Medical Association. The ACCME requires that all PRESENTERS at accredited activities declare whether they have any financial or other interest which might be construed as resulting in an actual, potential, or apparent conflict of interest in the work presented. The AACR Board of Directors has accepted this principle and has made such a declaration a prerequisite of abstract submission. **The existence of financial interests or other relationships of a commercial nature are not regarded by the AACR as creating a presumption of impropriety.** Rather, the AACR desires to make as much relevant information available as possible to those reviewing the data being presented.

All PRESENTERS, whether or not they have a financial or other interest in the work they intend to present, must complete and sign the Conflict of Interest Disclosure section of the form on Page 11 of this booklet. The form may also be downloaded as a PDF file from the AACR's Website. Failure to submit this form along with an abstract form by October 28, 1997, will result in return of the abstract to the PRESENTER without consideration by the Program Committee.

MAILING INSTRUCTIONS

1. Abstracts must be received in the office of the American Association for Cancer Research no later than **October 28, 1997.** Submission at an earlier date would be appreciated. The AACR urges investigators working outside of the United States to send their abstracts well ahead of the deadline date or to use one of the international courier services that offer delivery within a few days. The deadline for receipt must be applied uniformly to all abstracts regardless of their origin. **FAX or other electronic transmittals will not be accepted.**

2. Enclose the following materials unfolded and with cardboard backing in an envelope of suitable size:

A. An original plus three (3) legible copies of the completed abstract form signed by the **SPONSOR and PRESENTER.**

B. If available, a copy of the abstract on floppy disk. See instructions above for preparing and labeling the disk. Insert your disk into a disk mailer or other protective envelope and clip it to the paper copies of the abstract.

C. A check for US$40 payable to the American Association for Cancer Research, Inc. All checks must be drawn on United States banks. **PLEASE LIST THE NAME OF THE PRESENTER ON YOUR CHECK.** If you wish us to charge this amount to your credit card, fill out and sign Item 8 on the abstract form. Purchase orders are not acceptable for payment of the abstract submission fee.

D. The completed and signed Copyright Transfer/Conflict of Interest Disclosure Form plus one photocopy.

E. The Acknowledgment Card attached to this announcement. The names of the authors and the title of the paper should be filled in on the card prior to submission. The card will be returned to you showing the Temporary Abstract Number assigned to your abstract. This number should be referenced in all correspondence or telephone calls to the AACR Office. **PRESENTER:** To ensure receipt of the Acknowledgment Card, put your own address on the reverse of the card and affix proper postage.

F. One stamped, regular letter-sized envelope (about 4 x 9 1/2 inches, 10.2 x 24.2 cm) addressed to the PRESENTER. The final decision of the Program Committee concerning acceptability for presentation and publication will be returned in this envelope along with any other necessary instructions.

3. **Send** the materials listed above together in one envelope to:

American Association for Cancer Research, Inc.
1998 ANNUAL MEETING ABSTRACT
Public Ledger Building, Suite 826
150 S. Independence Mall West
Philadelphia, PA 19106-3483

4. **Do not enclose** membership application forms, membership dues, advance registration forms, housing forms, or any other materials in the envelope with your abstract submission.

Special mailing charges cannot be paid by the AACR. The AACR staff cannot assume responsibility for abstracts that are not delivered directly to the premises.

SUBMISSION OF CORRECTED ABSTRACTS

If after submitting your abstract you discover an error, **please do not submit a corrected abstract until you have received an acknowledgment card containing the Temporary Abstract Number of your original submission.** You may then submit a corrected abstract in strict accordance with the following instructions:

1. On a photocopy of the **original** abstract, indicate the correction(s) you are making.

2. On an official abstract form in the box provided, type the **full** text of the **resubmitted** abstract prepared according to the **Format** instructions above. Answer **all** the questions on the form. If possible, supply a file of the resubmitted version on floppy disk. (See instructions for disk submission above.)

3. Label both the original and resubmitted abstract forms in the upper right hand corner with your **Temporary Abstract Number** and the word **"Resubmission."** Put this information on the outer label of your resubmitted disk as well.

4. Send the corrected original abstract, an original and three copies of the resubmitted abstract on the official form, and your resubmitted disk to the address given on the next page. Write or type the word **"Resubmission"** on the mailing envelope.

Authors will be charged for any extraordinary production costs incurred as a result of abstracts being resubmitted or withdrawn after the *Proceedings* is in production. The AACR will not be responsible for the acceptance and processing of corrected abstracts that are not submitted in compliance with the above regulations. No substantive changes may be made in abstracts after they have undergone scientific review, and the AACR cannot accept any resubmission or comply with any request for withdrawal of an abstract that will delay the publication of the *Proceedings.*

THE OCTOBER 28, 1997, DEADLINE WILL BE STRICTLY ENFORCED.

BL CELL AND TUMOR BIOLOGY

BL1 Cell Growth Signaling Pathways: Cell Biology Aspects
- BL1-01 Growth factors: structure and function
- BL1-02 Receptors: structure and function
- BL1-03 Signaling: membrane to nucleus
- BL1-04 Autocrine-paracrine signaling
- BL1-05 Physiology/organismal homeostasis
- BL1-06 Cell-matrix interactions
- BL1-07 Adhesion and cytoarchitecture inputs
- BL1-08 Cell-cell interactions: communication/ GAP junctions
- BL1-09 Cell-cell adhesion receptors
- BL1-10 Tumor-stromal cell interactions
- BL1-11 Organogenesis and tumor development
- BL1-12 Cell and tissue kinetics/physiology
- BL1-13 Tissue remodeling and regeneration
- BL1-14 Wound healing and tissue repair
- BL1-15 Animal models of tissue host-tumor interactions
- BL1-16 Other

BL2 Cell Death Signaling
- BL2-01 Transcriptional control of apoptosis
- BL2-02 Genetic and developmental controls
- BL2-03 Receptor coupled signaling to apoptosis
- BL2-04 Death protein networks
- BL2-05 ICE proteases/caspases: cascades/ substrates
- BL2-06 Caspase inhibitors: experimental and preclinical
- BL2-07 Enzymology of apoptosis
- BL2-08 Nuclear targets/effectors of apoptosis
- BL2-09 Growth factors and other survival signals
- BL2-10 Cell adhesion/cell-cell interactions in apoptosis

Developmental control of apoptosis: organ sites
- BL2-11 Hematopoiesis
- BL2-12 Lymphopoiesis
- BL2-13 Breast: development/lactation/ regression
- BL2-14 Prostate
- BL2-15 Other
- BL2-16 bcl-2 pathways: effectors and inhibitors
- BL2-17 Fas, TNF receptor family
- BL2-18 Other

BL3 Tumor Progression, Invasion, and Metastasis
- BL3-01 Tissue degradation: proteases-inhibitor systems
- BL3-02 Motility: receptors and signaling
- BL3-03 Adhesion-extravasation-migration
- BL3-04 Inflammation and tumor development
- BL3-05 Macrophage-tumor interactions
- BL3-06 Organ-specific metastasis
- BL3-07 New metastasis genes
- BL3-08 Mechanisms of cell motility and migration
- BL3-09 Mechanisms of bone metastasis
- BL3-10 Xenograft-metastasis systems and their models
- BL3-11 Occult metastasis: detection
- BL3-12 Other

BL4 Host-Tumor Interactions: Angiogenesis and Microcirculation
- BL4-01 Mechanisms and signaling events
- BL4-02 Angiogenic factors and receptors
- BL4-03 Angiogenesis inhibitors: endogenous and synthetic
- BL4-04 Endothelial cell functions
- BL4-05 Blood flow and microcirculation
- BL4-06 Vascular, lymphatic, and interstitial transport
- BL4-07 Physiological resistance to cancer therapy
- BL4-08 Vascular structural reorganization
- BL4-09 Other

MB MOLECULAR BIOLOGY

MB1 Cancer Genetics I: New Loci and Mechanisms of Genomic Alterations

New human cancer genes: mapping of loci and cloning
- MB1-01 Molecular cytogenetics
- MB1-02 Comparative genomic hybridization
- MB1-03 LOH and marker studies
- MB1-04 Familial cancer and linkage studies
- MB1-05 Positional cloning
- MB1-06 Expression cloning strategies
- MB1-07 New mutation detection methods

Mechanisms of genomic alterations
- MB1-08 Cancer genome anatomy: comparative genomics
- MB1-09 Gene amplification
- MB1-10 Chromosomal translocations: genomic aspects
- MB1-11 Genetic instability: multistep progression
- MB1-12 Mutator genes: structure/function
- MB1-13 Genomic markers of mutator gene status
- MB1-14 DNA damage: enzymology/repair of lesions
- MB1-15 Transcriptional control of genomic instability
- MB1-16 Fragile sites and DNA recombination
- MB1-17 Other

MB2 Cancer Genetics II: Tumor Suppressor Genes: Structure and Function
- MB2-01 New mutations in human tumors
- MB2-02 Genotype/phenotype correlations

New functional aspects of selected known tumor suppressor genes
- MB2-03 p53
- MB2-04 Rb and family
- MB2-05 WT1
- MB2-06 NF1/NF2
- MB2-07 VHL
- MB2-08 DCC
- MB2-09 APC
- MB2-10 BRCA1
- MB2-11 BRCA2
- MB2-12 Other
- MB2-13 New tumor suppressor genes
- MB2-14 Suppressors of metastasis
- MB2-15 Tumor suppressor networks - functional pathways
- MB2-16 Other

MB3 Cancer Genetics III: Human and Retroviral Oncogenes: Structure and Function
- MB3-01 Growth factors and soluble molecules
- MB3-02 Protein tyrosine kinases: receptor and nonreceptor
- MB3-03 Protein serine-threonine kinases: receptor and nonreceptor
- MB3-04 Phosphatases: receptor and nonreceptor
- MB3-05 Cytosolic adaptors and intermediate molecules
- MB3-06 Guanine nucleotide binding proteins and effectors
- MB3-07 Mitogenic signaling kinase cascades
- MB3-08 Oncogenic transcription factors
- MB3-09 New oncogenes
- MB3-10 New oncogene networks
- MB3-11 Other

MB4 Gene Expression and Epigenetic Regulation
- MB4-01 Cancer genome anatomy: comparative expression patterns
- MB4-02 New methods in tumor microdissection/ comparative expression
- MB4-03 DNA methylation and maintenance
- MB4-04 Enzymology of DNA methylation/ modification
- MB4-05 Imprinting and allele-specific expression
- MB4-06 Silencing and reactivation of gene expression
- MB4-07 Telomeres and telomerase
- MB4-08 Cellular aging and senescence: molecular studies
- MB4-09 Other

MB5 Gene Regulation and Transcriptional Control of the Cancer Phenotype
- MB5-01 Basic mechanisms of transcription: biochemistry/enzymology
- MB5-02 Transcription-coupled repair: genetics/biochemistry
- MB5-03 Promoter/enhancer analysis
- MB5-04 Growth factor-inducible gene expression
- MB5-05 Oncogenic transcription factor function: leukemias/lymphomas/solid tumors
- MB5-06 Transgenic models of promoter and transcription factor function
- MB5-07 Protein-protein interaction in transcription factor function
- MB5-08 Protein phosphorylation and control of gene expression
- MB5-09 Transcriptional control of cell differentiation
- MB5-10 Transcriptional programs and organogenesis
- MB5-11 Chromatin structure/higher order regulation
- MB5-12 Gene position effects and genomic sensing
- MB5-13 Antisense control of gene expression
- MB5-14 Posttranscriptional and translational control
- MB5-15 New methods for multiplex analysis of gene expression
- MB5-16 Structural biology of transcription factors
- MB5-17 Other

MB6 Cell Cycle
- MB6-01 Growth factor control of cell cycle
- MB6-02 Genetic control of cell cycle progression
- MB6-03 Cell cycle genetic alterations
- MB6-04 Cell cycle checkpoints
- MB6-05 Checkpoints: genetics and biochemistry
- MB6-06 Cyclins and CDKs
- MB6-07 CDK inhibitors
- MB6-08 Phosphorylation and proteolysis in cell cycle control
- MB6-09 Negative regulation of cell cycle
- MB6-10 Viral oncoproteins and cell cycle regulation
- MB6-11 Other

MB7	**Viral Oncogenesis**
MB7-01	Viruses and susceptibility/promotion
MB7-02	Human tumor viruses: etiology/ epidemiology
MB7-03	Molecular biology and genetics of viruses
MB7-04	DNA tumor viruses
MB7-05	Viral transformation and carcinogenesis
MB7-06	Viral gene regulation
MB7-07	Viral oncogenes
MB7-08	Host-virus interactions
MB7-09	Other

CG CARCINOGENESIS

CG1	**Biomarkers, Premalignant Lesions, Risk Assessment**
CG1-01	Biomarkers of exposure to carcinogens
CG1-02	Environmental carcinogenesis
CG1-03	Carcinogenesis in fish models
CG1-04	Genetic susceptibility and risk assessment
CG1-05	Predictive assays for carcinogenicity
CG1-06	Premalignant lesions
CG1-07	Toxicology and carcinogenesis
CG1-08	Drug metabolizing enzymes
CG1-09	GSH/GST
CG1-10	Other
CG2	**Molecular Carcinogenesis: Metabolism, DNA Lesions, Mutagenesis, and Repair**
CG2-01	Biochemical aspects of carcinogen function: enzymatic bioactivation
CG2-02	Biochemistry of DNA repair
CG2-03	DNA adducts: identification and conformational effects
CG2-04	DNA adducts: repair and sequence specificity
CG2-05	Genetic and cytogenetic alterations
CG2-06	Metabolism and activation of carcinogens in animal models and humans
CG2-07	Molecular responses to DNA damage
CG2-08	Mutagenesis
CG2-09	Mutational spectrum of carcinogens
CG2-10	Oxygen radicals
CG2-11	Other
CG3	**Promotion and Progression**
CG3-01	Cellular transformation
CG3-02	Growth factors in progression
CG3-03	Mesenchymal/epithelial interactions
CG3-04	Signal transduction
CG3-05	Tumor promotion and progression
CG3-06	Other

EP EPIDEMIOLOGY

EP1	**Analytical Epidemiology in Populations**
EP1-01	Behavioral epidemiology
EP1-02	Cancer in minority and medically underserved populations
EP1-03	Diet, nutrition, and lifestyle factors
EP1-04	Environmental and occupational etiology
EP1-05	Radiation exposure and cancer risk
EP1-06	Gene-environment interactions
EP1-07	Human tumor viruses and other infectious agents in susceptible populations
EP1-08	Genetic polymorphisms and metabolizing enzymes
EP1-09	Preneoplastic lesions
EP1-10	Methodology, computer modeling, and biostatistics
EP1-11	Other
EP2	**Genetic and Molecular Epidemiology**
EP2-01	Genetic markers and biomarkers in epidemiology
EP2-02	Familial cancer genetics
EP2-03	Cancer syndromes
EP2-04	Genotype/phenotype correlations in cancer families
EP2-05	Susceptibility and risk assessment
EP2-06	Genetic counseling and ethical issues
EP2-07	Cancer surveillance in high-risk populations
EP2-08	Proactive cancer screening
EP2-09	Other

PR PREVENTION

PR1	**Preclinical Prevention Studies: Markers and Mechanisms**
PR1-01	Animal/transgenic models in promotion and prevention
PR1-02	Biological and biochemical mechanisms in prevention
PR1-03	Biomarkers and intervention studies
PR1-04	Molecular markers in prevention research
PR1-05	Caloric restriction
PR1-06	Cellular models in prevention research
PR1-07	Chemoprevention
PR1-08	Diet, nutrition, and cancer
PR1-09	Genetic influences on diet and cancer
PR1-10	Genetic susceptibility and prevention
PR1-11	Hormones and chemoprevention
PR1-12	Modulators of arachidonic acid metabolism
PR1-13	Other
PR2	**Clinical Prevention Studies**
PR2-01	Biomarkers and intervention studies
PR2-02	Chemoprevention trials
PR2-03	Studies at the interface of cancer prevention and chemotherapy
PR2-04	Physiological and lifestyle effects on chemoprevention
PR2-05	Prevention clinical trials
PR2-06	Prevention of second cancers
PR2-07	Prevention studies in high-risk populations
PR2-08	Other

CL CLINICAL RESEARCH

CL1	**Phase I Clinical Trials**
CL1-01	Phase I Clinical Trials
CL2	**Phase II-III Clinical Trials**
CL2-01	AIDS-related malignancies
CL2-02	Brain/central nervous system cancers
CL2-03	Breast cancer
CL2-04	Colon and other gastrointestinal cancers
CL2-05	Head and neck cancers
CL2-06	Leukemias and lymphomas
CL2-07	Lung cancer
CL2-08	Melanoma and skin cancer
CL2-09	Ovarian and other gynecological cancers
CL2-10	Pediatric malignancies
CL2-11	Prostate and other genitourinary tract cancers
CL2-12	Sarcomas
CL2-13	Other
CL3	**Organ-Site Specific Studies: Preclinical Research (Tumor Biology/Translational Research/ Experimental Therapeutics)**
CL3-01	AIDS-related malignancies
CL3-02	Brain/central nervous system cancers
CL3-03	Breast cancer
CL3-04	Colon and other gastrointestinal cancers
CL3-05	Head and neck cancers
CL3-06	Leukemias and lymphomas
CL3-07	Lung cancer
CL3-08	Melanoma and skin cancer
CL3-09	Ovarian and other gynecological cancers
CL3-10	Pediatric malignancies
CL3-11	Prostate and other genitourinary tract cancers
CL3-12	Sarcomas
CL3-13	Secondary cancers
CL3-14	Animal/transgenic models of molecular progression
CL3-15	Other
CL4	**Clinical Pharmacology**
CL4-01	Clinical drug resistance
CL4-02	Clinical toxicology
CL4-03	Biodistribution/availability
CL4-04	Pharmaceutics and monitoring
CL4-05	Prodrugs and activation strategies
CL4-06	Other
CL5	**Modality-based Clinical Research**
CL5-01	Cell-based therapeutics
CL5-02	Differentiation therapy
CL5-03	Gene therapy clinical trials
CL5-04	Hematopoietic colony stimulating factors
CL5-05	Mechanism-based combination chemotherapy
CL5-06	Multimodality therapy
CL5-07	Adjuvant chemotherapy
CL5-08	Clinical reversal of multidrug resistance
CL5-09	Transplantation: bone marrow and other stem cell approaches
CL5-10	Alternative medicine research
CL5-11	Other
CL6	**Molecular Biology/Oncology in the Clinic**
CL6-01	Advances in genome scanning relevant to the clinic
CL6-02	Comparative genomic hybridization from the bench to the clinic
CL6-03	Cytogenetics and clinical molecular genetics
CL6-04	Minimal residual disease
CL6-05	Molecular markers of metastasis and progression
CL6-06	Oncogene-based molecular diagnosis and prognosis
CL6-07	Tumor staging: correlation of clinical and molecular markers
CL6-08	Other
CL7	**Supportive Care and Psychosocial Aspects of Cancer**
CL7-01	Cancer information access and dissemination
CL7-02	Pain research
CL7-03	Palliative care
CL7-04	Psychosocial aspects of cancer
CL7-05	Other

EN ENDOCRINOLOGY/ PRECLINICAL AND CLINICAL

EN1	**Molecular and Preclinical Endocrinology: Receptors and Signal Transduction**
EN1-01	Cytokines and receptors
EN1-02	Growth factors and cell surface receptors
EN1-03	Developmental control of hormone receptors
EN1-04	Hormonal control of cell growth and death
EN1-05	Hormone action and inhibitors
EN1-06	Hormones and differentiation
EN1-07	Hormone receptor networks: signal transduction
EN1-08	Nuclear receptors: structure and function
EN1-09	New ligands

EN1-10 Preclinical studies of endocrine-related cancers
EN1-11 Protein-protein and co-factor interactions
EN1-12 Receptor crosstalk and signaling
EN1-13 Retinoids and receptors
EN1-14 Steroid hormones and receptors
EN1-15 Thyroid hormones and receptors
EN1-16 Other

EN2 Clinical Endocrinology
EN2-01 Hormonal carcinogenesis
EN2-02 Retinoid-based cancer therapy
EN2-03 Hormone receptors and diagnosis/prognosis
EN2-04 Hormone synthesis, metabolism, and inhibitors
EN2-05 Neuroendocrine and other endocrine factors
Endocrine-related cancers: organ sites
EN2-06 Breast
EN2-07 Ectopic hormone production
EN2-08 Gynecological
EN2-09 Prostate/genitourinary
EN2-10 Other
EN2-11 Other

IM IMMUNOLOGY/PRECLINICAL AND CLINICAL

IM1 Tumor Immunobiology: Experimental and Preclinical
IM1-01 Animal/transgenic models for tumor immunology
IM1-02 Antigenic modulation
Cancer vaccines
IM1-03 DNA-based vaccines
IM1-04 Oncogene-directed immunotherapy/vaccines
IM1-05 Tumor suppressor-directed immunotherapy/vaccines
IM1-06 Viral immunology and vaccines
IM1-07 Immunodeficiency/immunosuppression (including AIDS and AIDS-related malignancies)
IM1-08 Immunomodulation
IM1-09 Integrins and cell adhesion molecules
IM1-10 Lymphokines, cytokines, and growth factors
IM1-11 Nonspecific effector mechanisms
IM1-12 Specific immunomechanisms
IM1-13 Tumor antigens
IM1-14 Other

IM2 Clinical Immunology: Biological Therapy
IM2-01 Antibodies/immunoconjugates
IM2-02 Cancer vaccines
IM2-03 Cellular immunotherapy
IM2-04 Lymphokines and growth factors
IM2-05 Immunodiagnosis
IM2-06 Immunotherapy of human cancer
IM2-07 Transplantation: control of rejection
IM2-08 Other

PT PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

(See also CLINICAL RESEARCH, Organ-Site Specific Studies: Preclinical Research (Tumor Biology/Translational Research/Experimental Therapeutics) and Clinical Pharmacology)

PT1 Drug Discovery: Design, Screening, and Delivery
PT1-01 Human xenograft models for drug discovery
PT1-02 Biochemical modulators of the therapeutic index
PT1-03 Combination chemotherapy
PT1-04 Differentiation therapy
PT1-05 Drug design: rational/empirical
PT1-06 Combinatorial chemistry-based drug design
PT1-07 Drug screening
PT1-08 New targets
PT1-09 Novel drug delivery systems
PT1-10 Other

PT2 Mechanisms of Drug Action
PT2-01 Cell cycle mechanisms for anticancer drug action
PT2-02 Cellular responses to anticancer drugs
PT2-03 Drug-mediated stimulation of cell death pathways
PT2-04 Intracellular targets
PT2-05 Modulation of DNA repair
PT2-06 Oncogenic transcription factors as targets
PT2-07 Secondary targets
PT2-08 Other

PT3 Drug Resistance I - Multidrug Resistance
PT3-01 Biochemistry of membrane metabolism and transport
PT3-02 Drug transport and metabolism
PT3-03 Non-p-glycoprotein multidrug resistance
PT3-04 P-glycoprotein structure and function
PT3-05 Reversal of multidrug resistance (preclinical)
PT3-06 Other

PT4 Drug Resistance II
PT4-01 Drug transport and metabolism
PT4-02 Glutathione metabolism
PT4-03 Natural products, synthetic drugs, and nucleotide analogs
PT4-04 Novel mechanisms
PT4-05 Regulation of gene expression in drug resistance
PT4-06 Reversal of drug resistance
PT4-07 Other

PT5 Pharmacology and Preclinical Toxicology
PT5-01 Cellular pharmacology
PT5-02 Pharmacogenetics
PT5-03 Pharmacokinetics and pharmacodynamics
PT5-04 Preclinical toxicology
PT5-05 Other

PT6 Therapeutic Agents I (Small Molecule Approaches)
PT6-01 Alkylating agents
PT6-02 Antifolates
PT6-03 Chemopreventive therapeutic agents
PT6-04 Ether lipids
PT6-05 Farnesyl transferase inhibitors
PT6-06 Novel antitumor agents
PT6-07 Oncogene-based therapeutics: small molecules
PT6-08 Platinum complexes
PT6-09 Tyrosine kinase and phosphatase inhibitors
PT6-10 Other

PT7 Therapeutic Agents II (Biological Approaches)
PT7-01 Antireceptors
PT7-02 Antisense oligonucleotides
PT7-03 Antiviral therapy
PT7-04 Apoptosis: therapeutic manipulation
PT7-05 Growth factor receptors and other surface antigens as targets for therapy
PT7-06 Oncogenes, tumor suppressor genes, and gene products as targets for therapy
PT7-07 Protein kinases and phosphatases as targets for therapy
PT7-08 Other

PT8 Experimental Gene Therapy
PT8-01 Vector systems and targeting strategies
PT8-02 Cell-type targeted vectors
PT8-03 TK-based suicide gene therapy
PT8-04 Cell-type specific expression regulation of suicide genes
PT8-05 Antisense/ribozyme decoys
PT8-06 Delivery systems: nonbiological, *e.g.* liposomes
PT8-07 Hematopoietic progenitor cell targeting
PT8-08 Other

PT9 Topoisomerases, Other DNA-reactive Agents, Tubulin Agents
PT9-01 DNA-reactive agents
PT9-02 Topoisomerases
PT9-03 Tubulin agents
PT9-04 Other

RR RADIOBIOLOGY/RADIATION ONCOLOGY

RR1 Experimental Radiobiology
RR1-01 ATM: structure-function
RR1-02 ATM: genomic aspects and mutations
RR1-03 Cell cycle, differentiation, and apoptosis in radiation responses
RR1-04 Cytogenetic responses to radiation
RR1-05 DNA damage, mutagenesis, and repair
RR1-06 Experimental radiotherapeutics
RR1-07 Genetic and epigenetic control of radiosensitivity
RR1-08 Hyperthermia
RR1-09 Membrane targets for radiation
RR1-10 Molecular mechanisms/radiation-induced gene expression
RR1-11 Photobiology
RR1-12 Photodynamic therapy
RR1-13 Predictive assays for radiation sensitivity
RR1-14 Oncogenes and tumor suppressor genes in radiation responses
RR1-15 Radiation-induced biochemical alterations: conformation and function
RR1-16 Radiation-induced transformation and carcinogenesis
RR1-17 Radiation resistance
RR1-18 Radiolabelled antibodies in diagnosis and localization
RR1-19 Radioprotectors and radiosensitizers
RR1-20 Tumor oxygenation and modification
RR1-21 Other

RR2 Radiation Oncology, Preclinical and Clinical
RR2-01 Clinical radiotherapeutic studies
RR2-02 Combination therapies
RR2-03 Drug-radiation interactions
RR2-04 Modification of radiation sensitivity and injury
RR2-05 Radiation-induced late effects - second cancers
RR2-06 Radiation resistance
RR2-07 Radiolabelled antibodies in diagnosis and localization
RR2-08 Radioprotectors and radiosensitizers
RR2-09 Other

1998 Annual Meeting
American Association for Cancer Research

FOR OFFICE USE ONLY
TEMP. ABSTRACT NO. _____

COPYRIGHT TRANSFER/CONFLICT OF INTEREST DISCLOSURE FORM

Your abstract will not be considered unless this form is completed, signed, and enclosed with your submission.

NAME OF PRESENTER: _____

TITLE OF ABSTRACT: _____

_____

COPYRIGHT TRANSFER

As the PRESENTER and as an author of this abstract, on behalf of all the authors (check appropriate box and affix signature):

☐ I hereby transfer copyright of this abstract to the American Association for Cancer Research (AACR), Inc., in the event that this abstract is published in the *Proceedings of the American Association for Cancer Research.* I understand by this transfer that the authors relinquish all exclusive rights of copyright ownership to the abstract, including without limitation all 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. I understand the AACR, Inc., as copyright owner, has sole authority to grant permission to reproduce the abstract.

☐ This abstract was prepared by an employee or employees of the United States Federal Government. Therefore, I am unable to transfer rights to AACR, Inc.

_____ _____

Signature of Presenter Date

CONFLICT OF INTEREST DISCLOSURE

The American Association for Cancer Research (AACR) is committed to ensuring the integrity of its scientific, educational, and research programs and therefore requires disclosure of any financial or other interests which might be construed as resulting in an actual, potential, or apparent conflict. The existence of financial interests or other relationships of a commercial nature is not regarded by the AACR as creating a presumption of impropriety. Rather, AACR's policy represents a recognition of the many factors which can influence judgments about research data and a desire to make as much information as possible available to those reviewing the data.

The PRESENTER is required to disclose any financial or other relationships with an entity having a commercial interest **in the particular subject matter of his or her abstract**. A commercial interest exists not only where the entity's products or services are the subject of the abstract, but also where the entity's products or services are in competition with those under consideration. This form must be submitted by all PRESENTERS of abstracts whether or not there is such a relationship. Please indicate if you or any individual with whom you directly share income has a relationship requiring disclosure, including:

NO	YES	
☐	☐	Employment.
☐	☐	Consultancy within the past two years.
☐	☐	Ownership interests (including stock options) in a start-up company, the stock of which is not publicly traded.
☐	☐	Ownership interest (including stock options but excluding indirect investments through mutual funds and the like) valued at $1,000 or more in a publicly traded company.
☐	☐	Research funding.
☐	☐	Honoraria directly received from an entity in excess of $2,000 per year or $5,000 over a three-year period.
☐	☐	Paid expert testimony.
☐	☐	Membership on an entity's Board of Directors or its advisory committees.

IF YOU ANSWERED YES TO ANY OF THESE QUESTIONS, PLEASE DESCRIBE THE NATURE OF THE INTEREST AND/OR RELATIONSHIP, IDENTIFYING THE RELEVANT COMMERCIAL ENTITY (attach additional sheets as required).

_____

_____

_____

_____

I represent that the information reported above is accurate. I understand that, where appropriate, this information may be disclosed publicly. I further understand that the AACR reserves the right to replace me in a scientific or educational program, decline to publish my work, or otherwise limit my participation in the annual meeting if it believes that a significant conflict of interest exists. Finally, I understand that failure to complete this Disclosure Form will disqualify me from making a presentation at the annual meeting.

Submitted by: _____ Date: _____

Signature of Presenter

Deadline: October 28, 1997
Enclose:

___ Original abstract form plus 3 photocopies. (This form must be filled out **completely**. Requested signatures must appear on all copies.)

___ Your floppy disk, if you are submitting a copy of your abstract on disk

___ Check for US$40 payable to AACR, Inc., **OR** authorization to charge US$40 to credit card (see Item 8, below).

___ A completed and signed original plus 1 copy of the Copyright Transfer/Conflict of Interest Disclosure Form

___ Acknowledgment Card (completed and stamped).

___ A self-addressed, stamped envelope.

ABSTRACT FORM

AACR Annual Meeting
March 28-April 1, 1998
New Orleans, LA

DO NOT FOLD

FOR OFFICE USE ONLY	
Perm. Abst. No.	Temp. Abst. No.
CK / Other / NP	

Analysis of nucleotide-binding site mutants indicates a non-efflux component in P-glycoprotein-mediated drug resistance. Schott, B., Morse, B.S., Polonskaia, M., Stein, W., Mechetner, E.B., Chen, T.L., Chisholm, R.L., and Roninson, I.B. University of Illinois at Chicago, Chicago, IL 60607, Hebrew University, Jerusalem, Israel 91904, Oncotech, Inc., Irvine, CA 92714, Northwestern University, Chicago, IL 60611.

P-glycoprotein (Pgp), a multidrug resistance efflux pump, contains two nucleotide-binding sites (NBS) responsible for its ATPase activity. We have introduced K→M substitutions at positions 433 and/or 1076 of the two NBS of the human MDR1 Pgp. Analysis of LMtk⁻ transfectants expressing different Pgp mutants showed that simultaneous mutation of both NBS results in complete loss of the ability to confer drug resistance. Pgps carrying mutations in either one of the two ABC retained about 15% of their ability to confer resistance to vinblastine and vincristine, but not to other Pgp-transported drugs. Single-mutant Pgps showed decreased binding of a photoactive ATP analog and complete or nearly complete loss of ATPase activity. Wild-type and single-mutant transfectants that were equally resistant to vinblastine drastically differed in their vinblastine transport. Vinblastine accumulation and efflux in single-mutant transfectants was similar to control cells rather than to wild-type Pgp transfectants. Confocal microscopy analysis of intracellular distribution of a fluorescent vinblastine derivative revealed plasma membrane staining which was specific to single-mutant transfectants. Vinblastine resistance and membrane staining in the transfectants were similarly affected by anti-Pgp monoclonal antibody UIC2. These results suggest that plasma membrane sequestration is a component of Pgp-mediated drug resistance.

Type abstract within black lines. See sample abstract.

1. Category and Subclassification (see Pages 8-10): Type the five-character code in the blocks provided, for example,

B	L	4	-	0	1

P	T	3	-	0	4

2. Abstract is SPONSORED by: 2309 **Member No.**
(See Directory of Members for Member No.)

Igor Boris Roninson — Name (Please Print)
University of Illinois at Chicago — Address
900 South Ashland
Chicago, Illinois — City, State
60607 — Zip/Postal Code
USA — Country
312-996-3486 — Telephone No.
312-413-8358 — FAX No.
roninson@uic.edu — E-Mail Address

3. As the **SPONSOR** of this abstract and on behalf of all the authors, I hereby indicate my support for the data contained herein.

Igor Boris Roninson — Signature of SPONSOR

4. (Complete **only** if **SPONSOR** is an **Associate Member**) I, the undersigned **Active or Corresponding Member** in good standing, **Emeritus**, or **Honorary Member**, **endorse** the content of this abstract, for which the above-named **Associate Member** is sponsor and presenter. (See regulations applying to Associate Members on Page 3.)

_____ Name (Please Print)
_____ Signature _____ Member No.

5. Eligibility for Young Investigator Awards (American and International)

☐ A. The **PRESENTER** of this abstract is a medical or graduate student, physician in training, or postdoctoral fellow.

☐ B. The **PRESENTER** meets the criteria in Box A above **and** is **also** a minority scientist as defined by the National Cancer Institute (see Page 5).

6. Abstract is to be **PRESENTED** by: _____ **Member No.**
(If an AACR Member.)

Brigitte Schott — Name (Please Print)
University of Illinois at Chicago — Address
900 South Ashland
Chicago, Illinois — City, State
60607 — Zip/Postal Code
USA — Country
312-413-5392 — Telephone No.
312-413-3128 — FAX No.
bschott@uic.edu — E-Mail Address

7. As the **PRESENTER** and as an author of this abstract and on behalf of all the authors, I hereby give exclusive permission to the American Association for Cancer Research, Inc. to record my presentation at the 1998 Annual Meeting and to collect all revenue from subsequent audiocassette sales. I also acknowledge that I am enclosing a completed, signed original and 1 copy of the Copyright Transfer/Conflict of Interest Disclosure Form.

Brigitte Schott — Signature of PRESENTER

8. Payment of US$40 Abstract Submission Fee.

___Check is enclosed. *Please list name of PRESENTER on the check.*

___I authorize you to charge my credit card for the abstract submission fee.

☐ VISA ☐ MasterCard ☐ American Express

_____ _____
Card No. Expiration Date

_____ _____
Cardholder Name (PRINT) Signature

Please check all the information you have entered for correctness and adherence to AACR submission rules. Infractions of sponsorship regulations will result in the rejection and return of the abstract to the SPONSOR without consideration by the Program Committee. Infractions of format, including forms submitted without the required signatures, will result in a fee of US$40 which will be billed to the SPONSOR.

Deadline: October 28, 1997
Enclose:

____ Original abstract form plus 3 photocopies. (This form must be filled out **completely**. Requested signatures must appear on all copies.)

____ Your floppy disk, if you are submitting a copy of your abstract on disk

____ Check for US$40 payable to AACR, Inc., **OR** authorization to charge US$40 to credit card (see Item 8, below).

____ A completed and signed original plus 1 copy of the Copyright Transfer/Conflict of Interest Disclosure Form

____ Acknowledgment Card (completed and stamped).

____ A self-addressed, stamped envelope.

ABSTRACT FORM

AACR Annual Meeting
March 28-April 1, 1998
New Orleans, LA

DO NOT FOLD

FOR OFFICE USE ONLY	
Perm. Abst. No.	Temp. Abst. No.
CK / Other	/ NP

1. Category and Subclassification (see Pages 8-10): Type the five-character code in the blocks provided, for example,

B	L	1	–	0	1

			–		

Type abstract within black lines. See sample abstract.

2. Abstract is SPONSORED by: _____ **Member No.**
(See Directory of Members for Member No.)

_____Name
(Please Print)

_____Address

_____

_____City,State

Zip/
_____ Postal Code _____Country

_____Telephone No. _____ FAX No.

_____E-Mail Address

3. As the **SPONSOR** of this abstract and on behalf of all the authors, I hereby indicate my support for the data contained herein.

_____ **Signature of SPONSOR**

4. (Complete **only** if **SPONSOR** is an **Associate Member**) I, the undersigned **Active or Corresponding Member** in good standing, **Emeritus**, or **Honorary Member**, **endorse** the content of this abstract, for which the above-named **Associate Member** is sponsor and presenter. (See regulations applying to Associate Members on Page 3.)

_____Name
(Please Print)

_____Signature _____Member No.

5. Eligibility for Young Investigator Awards (American and International)

☐ A. The **PRESENTER** of this abstract is a medical or graduate student, physician in training, or postdoctoral fellow.

☐ B. The **PRESENTER** meets the criteria in Box A above **and** is **also** a minority scientist as defined by the National Cancer Institute (see Page 5).

6. Abstract is to be **PRESENTED** by: _____ **Member No.**
(If an AACR Member.)

_____Name
(Please Print)

_____Address

_____

_____City,State

Zip/
_____ Postal Code _____Country

_____Telephone No. _____ FAX No.

_____E-Mail Address

7. As the **PRESENTER** and as an author of this abstract and on behalf of all the authors, I hereby give exclusive permission to the American Association for Cancer Research, Inc. to record my presentation at the 1998 Annual Meeting and to collect all revenue from subsequent audiocassette sales. I also acknowledge that I am enclosing a completed, signed original and 1 copy of the Copyright Transfer/Conflict of Interest Disclosure Form.

_____ Signature of PRESENTER

8. Payment of US$40 Abstract Submission Fee.

___Check is enclosed. *Please list name of PRESENTER on the check.*

___I authorize you to charge my credit card for the abstract submission fee.

☐ VISA ☐ MasterCard ☐ American Express

_____ _____
Card No. Expiration Date

_____ _____
Cardholder Name (PRINT) Signature

Please check all the information you have entered for correctness and adherence to AACR submission rules. Infractions of sponsorship regulations will result in the rejection and return of the abstract to the SPONSOR without consideration by the Program Committee. Infractions of format, including forms submitted without the required signatures, will result in a fee of US$40 which will be billed to the SPONSOR.

Deadline: October 28, 1997
Enclose:

- ____ Original abstract form plus 3 photocopies. (This form must be filled out **completely**. Requested signatures must appear on all copies.)
- ____ Your floppy disk, if you are submitting a copy of your abstract on disk
- ____ Check for US$40 payable to AACR, Inc., **OR** authorization to charge US$40 to credit card (see Item 8, below).
- ____ A completed and signed original plus 1 copy of the Copyright Transfer/Conflict of Interest Disclosure Form
- ____ Acknowledgment Card (completed and stamped).
- ____ A self-addressed, stamped envelope.

ABSTRACT FORM

AACR Annual Meeting
March 28-April 1, 1998
New Orleans, LA

DO NOT FOLD

FOR OFFICE USE ONLY	
Perm. Abst. No.	Temp. Abst. No.
CK / Other / NP	

1. Category and Subclassification (see Pages 8-10): Type the five-character code in the blocks provided, for example,

B	L	1	–	0	1

			–		

Type abstract within black lines. See sample abstract.

2. Abstract is SPONSORED by: _____ **Member No.**
(See Directory of Members for Member No.)

_____Name
(Please Print)

_____Address

_____

_____City,State

Zip/
_____ Postal Code _____Country

_____Telephone No. _____ FAX No.

_____E-Mail Address

3. As the **SPONSOR** of this abstract and on behalf of all the authors, I hereby indicate my support for the data contained herein.

_____ **Signature of SPONSOR**

4. (Complete **only** if **SPONSOR** is an **Associate Member**) I, the undersigned **Active or Corresponding Member** in good standing, **Emeritus**, or **Honorary Member**, **endorse** the content of this abstract, for which the above-named **Associate Member** is sponsor and presenter. (See regulations applying to Associate Members on Page 3.)

_____Name
(Please Print)

_____Signature _____Member No.

5. Eligibility for Young Investigator Awards (American and International)

☐ A. The **PRESENTER** of this abstract is a medical or graduate student, physician in training, or postdoctoral fellow.

☐ B. The **PRESENTER** meets the criteria in Box A above **and** is **also** a minority scientist as defined by the National Cancer Institute (see Page 5).

6. Abstract is to be **PRESENTED** by: _____ **Member No.**
(If an AACR Member.)

_____Name
(Please Print)

_____Address

_____

_____City,State

Zip/
_____ Postal Code _____Country

_____Telephone No. _____ FAX No.

_____E-Mail Address

7. As the **PRESENTER** and as an author of this abstract and on behalf of all the authors, I hereby give exclusive permission to the American Association for Cancer Research, Inc. to record my presentation at the 1998 Annual Meeting and to collect all revenue from subsequent audiocassette sales. I also acknowledge that I am enclosing a completed, signed original and 1 copy of the Copyright Transfer/Conflict of Interest Disclosure Form.

_____ Signature of PRESENTER

8. Payment of US$40 Abstract Submission Fee.

___Check is enclosed. *Please list name of PRESENTER on the check.*

___I authorize you to charge my credit card for the abstract submission fee.

☐ VISA ☐ MasterCard ☐ American Express

_____ _____
Card No. Expiration Date

_____ _____
Cardholder Name (PRINT) Signature

Please check all the information you have entered for correctness and adherence to AACR submission rules. Infractions of sponsorship regulations will result in the rejection and return of the abstract to the SPONSOR without consideration by the Program Committee. Infractions of format, including forms submitted without the required signatures, will result in a fee of US$40 which will be billed to the SPONSOR.

AMERICAN ASSOCIATION FOR CANCER RESEARCH

Guidelines for Application for Active and Corresponding Membership

BENEFITS OF MEMBERSHIP

The American Association for Cancer Research (AACR), a scientific society of over 13,000 laboratory and clinical cancer researchers, was founded in 1907 to facilitate communication and dissemination of knowledge among scientists and others dedicated to the cancer problem; to foster research in cancer and related biomedical sciences; to encourage the presentation and discussion of new and important observations in the field; to foster public education, science education, and training; and to advance the understanding of cancer etiology, prevention, diagnosis, and treatment throughout the world.

Members of the AACR enjoy the following benefits:

1. the privilege of sponsoring a proffered paper (abstract) for consideration for presentation at the AACR annual meeting;
2. subscriptions to the Association's high-quality journals *Cancer Research, Clinical Cancer Research, Cell Growth & Differentiation*, and *Cancer Epidemiology, Biomarkers & Prevention* at reduced member rates;
3. an advance copy of the Program and *Proceedings of the American Association for Cancer Research* that contains over 4,000 abstracts of proffered papers presented at the annual meeting;
4. reduced registration rates at annual meetings;
5. priority notice of small, focussed meetings in the AACR's exciting series of Special Conferences in Cancer Research;
6. substantially reduced registration rates for Special Conferences;
7. opportunities for participation in AACR meetings in North America and abroad with other scientific societies around the world;
8. receipt of AACR Newsletters and other important announcements;
9. early notification of and reduced rates for participation in the AACR Employment Register;
10. an up-to-date Membership Directory of over 13,000 member researchers in the cancer field;
11. the professional benefits of AACR's public education activities concerning funding for cancer research and press coverage of the latest research findings;
12. the opportunity to participate in three Summer Workshops that foster knowledge in the cancer field for young investigators;
13. the facilitation of informal scientific exchange with leading researchers in the cancer field; and
14. many more ongoing benefits.

QUALIFICATIONS FOR MEMBERSHIP

Active membership in the AACR is open to investigators who live in the Americas. Individuals who have conducted two years of research resulting in peer-reviewed publications relevant to cancer, or who have made substantial contributions to cancer research in an administrative or educational capacity, are eligible. If a candidate has conducted research in an area of biomedical science related to cancer, he or she will qualify for membership. Evidence of patents relevant to cancer research may be submitted as qualifications for membership in lieu of peer-reviewed publications.

Corresponding membership is open to persons who are not residents of the Americas. The qualifications for corresponding membership are the same as those indicated above for active membership. Visiting scientists from outside the Americas who intend to return to their countries of origin by the anticipated time of election should apply for corresponding membership. All other visiting scientists should apply for active membership and transfer to corresponding status upon leaving the Americas.

Graduate and medical students, postdoctoral fellows, and physicians in training who do not yet meet the above qualifications for active or corresponding membership should apply for associate membership. Forms for associate membership are available from the AACR Office.

PROCEDURES FOR APPLICATION

There are three deadlines for the receipt of a membership application: January 1, May 1, and September 1 of each year. The Membership Committee will review all complete applications for active membership that have been received by these deadlines and will submit recommendations on each candidate to the Board of Directors which formally elects all members. The same procedure is followed by the Special Memberships Committee which receives applications for corresponding membership. Candidates will be notified according to the following schedule:

Receipt of Application in AACR Office	Notification of Candidate
January 1	March
May 1	July
September 1	November

A complete application consists of the following material:

1. 6 copies of the form on the opposite side of this page, with all requested information provided.
2. 5 copies of the candidate's most current curriculum vitae and bibliography.
3. 5 copies of a letter of recommendation from a nominator who is an active, corresponding, emeritus, or honorary member of the AACR (at least one copy must be a signed, original letter). This letter should describe the candidate's achievements in laboratory research, clinical investigations, or epidemiological research, and it should affirm that this research adheres to accepted ethical scientific standards. –OR– The nominator may sign the application form where indicated under the heading, "STATEMENT OF SUPPORT" (at least one copy of the form must be the signed original).
4. 5 copies of a letter of recommendation as described in Item 3 above from a seconder who is an active, corresponding, emeritus, or honorary member of the AACR (at least one copy must be a signed, original letter). –OR– The seconder may sign the application form where indicated under the heading, "STATEMENT OF SUPPORT" (at least one copy of the form must be the signed original).
5. 5 reprints of each of two publications on which the candidate appears as author. As noted above, evidence of patents developed by the candidate may be submitted in lieu of one or both of the publications. If submitting patents, supply patent number and year awarded.

All material should be collated into five complete sets with the original application form as a covering document and sent to the address given below. Questions regarding procedures for membership application may also be directed to the following address:

Membership Services Department
American Association for Cancer Research
Public Ledger Building, Suite 826
150 S. Independence Mall West
Philadelphia, PA 19106-3483
Phone: 215/440-9300
FAX: 215/440-9412
E-mail: aacr@aacr.org

RESPONSIBILITIES OF MEMBERSHIP

Candidates should be aware of the following responsibilities of membership in the AACR. Active members must pay annual dues. In 1998 annual dues for active members are $175, $100 of which is designated for AACR journal subscriptions. Newly elected members of the AACR who have already purchased subscriptions to *Cancer Research, Clinical Cancer Research, Cell Growth & Differentiation*, or *Cancer Epidemiology, Biomarkers & Prevention* at the higher, nonmember rates will receive reimbursement of the unused portion of those subscriptions once their first year's membership dues are paid in full.

Corresponding members are required to pay dues ($90 in 1998) and may, if they wish, subscribe to *Cancer Research, Clinical Cancer Research, Cell Growth & Differentiation*, or *Cancer Epidemiology, Biomarkers & Prevention* at reduced member rates.

Applicants elected in March will be responsible for payment of that year's dues; applicants elected in July and November will pay dues for the following year. Applicants elected in March and July will be eligible to sponsor an abstract for the next annual meeting. Every effort will be made to afford the same opportunity to applicants elected in November.

Margaret Foti, Ph.D.
Executive Director

AMERICAN ASSOCIATION FOR CANCER RESEARCH, INC.

Public Ledger Building • Suite 826 • 150 S. Independence Mall West • Philadelphia, PA 19106-3483

Application for Active or Corresponding Membership

NAME OF CANDIDATE: _____ DATE OF BIRTH: _____
LAST FIRST M.I. Month / Day / Year

PRESENT POSITION/TITLE: _____

INSTITUTIONAL AFFILIATION: _____

INSTITUTIONAL ADDRESS: _____

_____
(City) (State/Province) (Country) (Postal Code)

TELEPHONE NUMBER: _____ FAX NUMBER: _____
(If outside the United States list country and city codes.)

E-MAIL ADDRESS: _____

PRIMARY FIELD OF RESEARCH (Please check only one):

_____Biochemistry and Biophysics
_____Cellular Biology and Genetics
_____Epidemiology
_____Preclinical Pharmacology and Experimental Therapeutics
_____Biostatistics
_____Clinical Investigations
_____Immunology
_____Virology
_____Carcinogenesis
_____Endocrinology
_____Molecular Biology and Genetics
_____Other: _____ (Please specify)

ACADEMIC DEGREES (Including where and when granted)

_____

_____

_____

EXPERIENCE SINCE HIGHEST DEGREE WAS GRANTED (Please list most recent first)

_____

_____

_____

PUBLICATIONS (Reprints of two peer-reviewed articles on which the candidate appears as an author must accompany this application. For these two articles list the authors, title, journal, volume, inclusive pages, and year. Do not submit abstracts. If submitting patents, supply patent number and year awarded.)

_____

_____

_____

CANDIDATE IS APPLYING FOR (Check one): ☐ Active Membership ☐ Corresponding Membership

CANDIDATE NOMINATED BY*: _____
(Please print)

CANDIDATE SECONDED BY*: _____
(Please print)

STATEMENT OF SUPPORT

Instead of submitting letters of recommendation, either the nominator or the seconder or both may complete the following section:

I acknowledge by signing this statement of support, that this candidate adheres to accepted ethical scientific standards and has or will make a long-term contribution to cancer research.

Signature of Nominator: _____ Date: _____

Signature of Seconder: _____ Date: _____

See Guidelines for Application on the reverse side of this form for further instructions.

*Both nominator and seconder must be Active, Corresponding, Emeritus, or Honorary members of the AACR in good standing.

AMERICAN ASSOCIATION FOR CANCER RESEARCH

Guidelines for Application for Associate Membership

QUALIFICATIONS FOR MEMBERSHIP

Associate membership is open to graduate students, medical students, postdoctoral fellows, and physicians in training who are following a course of study or who are working in a research program relevant to cancer. Scientists in training who already have a substantial record of publications may wish to apply for active or corresponding membership which confers full benefits of membership.

BENEFITS OF MEMBERSHIP

The American Association for Cancer Research (AACR), a scientific society consisting of laboratory and clinical cancer researchers, was founded in 1907 to facilitate communication and dissemination of knowledge among scientists and others dedicated to the cancer problem; to foster research in cancer and related biomedical sciences; to encourage presentation and discussion of new and important observations in the field; to foster public education, science education, and training; and to advance the understanding of cancer etiology, prevention, diagnosis, and treatment throughout the world. Associate members of the AACR enjoy the following benefits:

1. the privilege of sponsoring a proffered paper (abstract) for consideration for presentation at the AACR annual meeting provided that (a) the associate member is the presenter of the paper and (b) an active, corresponding, emeritus, or honorary member in good standing of the AACR also signs the abstract of the paper in support of the work. (In this instance, the member who cosigns the abstract does not lose his or her own sponsorship privilege.);
2. optional subscriptions to the Association's high-quality journals: *Cancer Research, Clinical Cancer Research, Cell Growth & Differentiation*, and *Cancer Epidemiology, Biomarkers & Prevention* at reduced member rates; beginning in 1998 associate members will be able to purchase AACR jounals for half the price of a regular member subscription;
3. an advance copy of the scientific Program and (if one has been purchased by the associate member) the *Proceedings of the American Association for Cancer Research* that contains over 4,000 abstracts of proffered papers presented at the annual meeting;
4. the privilege of registering for the annual meeting at the low associate member rate;
5. the privilege of electing an Associate Member Council that organizes programs benefitting associate members and that presents their concerns to the AACR Board of Directors;
6. the opportunity to stand for election to the Associate Member Council;
7. preferred access to the AACR Employment Register;
8. priority notification of events in the AACR's series of special conferences on timely subjects in the field;
9. substantially reduced registration rates at special conferences;
10. the receipt of AACR newsletters, meeting announcements, and an up-to-date Membership Directory;
11. the opportunity to participate in three Summer Workshops that foster knowledge in the cancer field for young investigators; and
12. the facilitation of informal scientific exchange with leading researchers in the cancer field.

PROCEDURES FOR APPLICATION

Persons wishing to apply for associate membership must use the official application form on the reverse side of these instructions. Each candidate for associate membership must be nominated by an active, corresponding, emeritus, or honorary member in good standing of the AACR. Three completed copies of the form should be submitted; at least one of these copies must carry the original signatures of both the candidate and the nominator. In addition, the candidate should submit one copy of his or her curriculum vitae. The application may be submitted to the Association Office at any time.

After review of applications for associate membership, the Executive Director will notify candidates of their election or deferral within one month of the receipt of the application form. A check for one year's dues payment must accompany the application. Dues for 1997 are $45 for associate members residing in the Americas and $55 for residents of other countries. This fee will be refunded to any candidate deemed to be ineligible for associate membership. Checks should be in U.S. currency, made payable to AACR, Inc., and drawn on a U.S. bank. Send the three copies of the application form and the appropriate dues payment to:

Membership Services Department
American Association for Cancer Research
Public Ledger Building, Suite 826
150 S. Independence Mall West
Philadelphia, PA 19106-3483
Phone: 215/440-9300
Fax: 215/440-9412
Email: aacr@aacr.org

RESPONSIBILITIES OF MEMBERSHIP

Associate members must pay annual dues in an amount to be determined by the AACR Board of Directors. Dues for 1997 have been set at $45 per year for residents of the Americas and $55 for residents of other countries. If an application is submitted by August 31, the accompanying dues payment will be credited to the current year. Candidates submitting applications between September 1 and December 31 may indicate whether they wish their dues payments credited to the current or forthcoming year. Candidates should be aware, however, that associate members may sponsor an abstract for the annual meeting only if their dues for the current year are paid. For example, an associate member submitting an abstract in October 1997 for the forthcoming annual meeting must have paid dues for 1997. Any newly elected associate members of the AACR who have already purchased subscriptions to *Cancer Research, Clinical Cancer Research, Cell Growth & Differentiation*, or *Cancer Epidemiology, Biomarkers & Prevention* at the higher, nonmember rate will receive a refund for the unused portion of that subscription upon receipt of their payment for a member's subscription.

Each Fall the AACR will send to current associate members an invoice for dues for the forthcoming year. Payment of this invoice must be accompanied by a statement signed by the associate member's registrar, dean, or department head, verifying the member's current academic status. The Association's By-Laws state that dues are payable for each year in advance by January 1 of the year to which they should be applied. An individual may be an associate member for a maximum of five years. Each year in which an individual pays dues will count as one full year of associate membership. Thus, an associate member who pays dues for 1997 may retain associate membership until December 31, 2001. The Board of Directors may terminate the membership of an associate member whose dues are in arrears for two years.

Margaret Foti, Ph.D.
Executive Director

AMERICAN ASSOCIATION FOR CANCER RESEARCH, INC.

Public Ledger Building • Suite 826 • 150 S. Independence Mall West • Philadelphia, PA 19106-3483

Application for Associate Membership

NAME OF CANDIDATE: _____ DATE OF BIRTH: _____
LAST FIRST M.I. Month / Day / Year

INSTITUTIONAL AFFILIATION: _____

INSTITUTIONAL ADDRESS: _____

_____
(City) (State/Province) (Country) (Postal Code)

TELEPHONE NUMBER: _____ FAX NUMBER: _____
(If outside the United States list country and city codes.)

E-MAIL ADDRESS: _____

PRESENT ACADEMIC STATUS/TITLE (Please check only one):

_____Graduate Student _____Medical Student Gender: ☐ Male ☐ Female

_____Physician in Training _____Postdoctoral Fellow

PRIMARY FIELD OF RESEARCH (Please check only one):

_____Biochemistry and Biophysics _____Biostatistics _____Carcinogenesis

_____Cellular Biology and Genetics _____Clinical Investigations _____Endocrinology

_____Epidemiology _____Immunology _____Molecular Biology and Genetics

_____Preclinical Pharmacology and Experimental Therapeutics _____Virology _____Other: _____
(Please specify)

ACADEMIC DEGREES (Please indicate degree(s) acquired to date along with the name of the academic institution and date of receipt. Provide information on degree currently being sought and the anticipated date of completion of this degree program.)

_____

_____

_____

RELEVANT RESEARCH EXPERIENCE NOT RELATED TO COURSE WORK (Please list most recent first.)

_____

_____

_____

PUBLICATIONS (List the authors, title, journal, volume, inclusive pages, and year of any article in a peer-reviewed journal on which the candidate appears as an author. Do not list abstracts. Continue on a separate sheet, if necessary.)

_____

_____

_____

CANDIDATE NOMINATED BY*: _____
(Please print)

SIGNATURES

I hereby apply for associate membership in the American Association for Cancer Research. I have read the instructions on the reverse side of this form, and I understand the privileges and responsibilities of this class of membership. I certify that the statements on this application are true.

Signature of Candidate: _____ Date: _____

I recommend this candidate for Associate Membership in the American Association for Cancer Research. To the best of my knowledge, the candidate is qualified for this class of membership, and the statements on this application are true.

Signature of Nominator*: _____ Date: _____

Submit three copies of this form. At least one copy must contain the original signatures of the candidate and the nominator. In addition, submit one copy of your curriculum vitae. Enclose a check in U.S. funds, made payable to AACR, Inc., and drawn on a U.S. bank for one year's dues. For 1997 dues are $45 for Associate Members residing in the Americas and $55 for residents of other countries.

Check one of the following boxes only if this form is being submitted between September 1 and December 31:
The enclosed dues payment should be applied to the ☐ current calendar year ☐ forthcoming calendar year.
(NOTE: If dues are applied to the forthcoming year, membership will take effect on January 1, but the candidate will not be eligible to sponsor an abstract for presentation at the annual meeting in March or April of that year.) See Guidelines for Application on the reverse side of this form for further instructions.

*Nominator must be Active, Corresponding, Emeritus, or Honorary member of the AACR in good standing.

AUDIO & VIDEO CASSETTE ORDER FORM

AMERICAN ASSOCIATION FOR CANCER RESEARCH

88TH ANNUAL MEETING

April 12 - 16, 1997 • San Diego, CA

AUDIO CASSETTE DISCOUNTS

1 - 5 cassettes	$11.50
6 - 11 cassettes	5% discount
12 - 24 cassettes	10% discount
25 - 48 cassettes	15% discount
49+	20% discount

PROGRAMS CONSIST OF 1, 2 OR 3 CASSETTES.

PRICES ARE LISTED BEFORE PROGRAM TITLES.

☐CAN 700 **(3 cass., $34.50)** Public Session: Progress and New Hope in the Fight Against Cancer: A Public Forum Highlighting the Latest Discoveries

☐CAN 701 **(2 cass., $23)** Educational Session 2: Cancer Research in the Post-Genome Era

☐CAN 702 **(3 cass., $34.50)** Methods Workshop 1: Bioinformatics in Cancer Research

☐CAN 703 **(2 cass., $23)** Methods Workshop 2: Differential Display in Gene Discovery and Functional Analysis

☐CAN 704 **(2 cass., $23)** Methods Workshop 3: Protein-Protein Interactions

☐CAN 705 **(2 cass., $23)** Educational Session 4: Nonviral Delivery Systems for Gene Therapy

☐CAN 706 **(2 cass., $23)** Educational Session 5: The Biology of Cancer Metastasis

☐CAN 707 **(2 cass., $23)** Educational Session 1: Genetics and Biochemistry of Programmed Cell Death

☐CAN 708 **(2 cass., $23)** Educational Session 3: Telomerase, Cellular Senescence, and Cancer

☐CAN 709 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Molecular Approaches to the Management of Ovarian Cancer *(Robert C. Bast, Jr.)*

☐CAN 710 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Transcriptional Models and Drug Discovery *(William G. Kaelin, Jr.)*

☐CAN 711 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Research Issues and Special Populations *(Otis W. Brawley)*

☐CAN 712 **(1 cass., $11.50)** Meet the Expert Sunrise Session: Cancer Vaccines *(David P. Carbone)*

☐CAN 713 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Chemoprevention in Transgenic Animals *(James M. Phang)*

☐CAN 714 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Advances in Stem Cell Transplantation *(Elizabeth J. Shpall)*

☐CAN 715 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Interactions of Membrane Lipids and Kinases: Novel Targets for Radiation Killing *(Ralph R. Weichselbaum)*

☐CAN 716 **(2 cass., $23)** Plenary Session: Genetic Predisposition to Cancer

☐CAN 717 **(1 cass., $11.50)** Presentation by the Director of the National Cancer Institute *(Richard D. Klausner)*

☐CAN 718 **(1 cass., $11.50)** Thirty-Seventh G.H.A. Clowes Memorial Award Lecture: "bcl-2 Gene Family and the Regulation of Cell Death" *(Stanley J. Korsmeyer)*

☐CAN 719 **(3 cass., $34.50)** Minisymposium Pharmacology/Therapeutics 11: Molecular Mechanisms Controlling Sensitivity to Antifolates

☐CAN 720 **(3 cass., $34.50)** Minisymposium Radiobiology/Radiation Oncology 2: Genetic Determinants of Cellular Response to Radiation

☐CAN 721 **(2 cass., $23)** Minisymposium Biology 6:Proteinases: Invasion and Regulation

☐CAN 722 **(2 cass., $23)** Minisymposium Epidemiology/Prevention 2: Genetic Susceptibility

☐CAN 723 **(2 cass., $23)** Symposium 1: Genes, Cell Proliferation, and Antineoplastic Drugs

☐CAN 724 **(2 cass., $23)** Symposium 2: Acute Myeloid Leukemia

☐CAN 725 **(2 cass., $23)** Symposium 3: New Techniques for Molecular Diagnostics

☐CAN 726 **(2 cass., $23)** Symposium 4: Behavioral and Psychosocial Methods in Cancer Epidemiology and Control

☐CAN 727 **(1 cass., $11.50)** Second Joseph H. Burchenal AACR Clinical Research Award: "Antigen Receptors as Targets for Immunotherapy of Lymphoma" *(Ronald Levy)*

☐CAN 728 **(2 cass., $23)** Minority Issues Committee Careers Symposium

☐CAN 729 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Advances in the Management of AIDS-related Malignancies *(Ellen G. Feigal)*

☐CAN 730 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: How to Get Your New Idea into the Clinic — Experiences with Antiangiogenesis Agents *(Elise C. Kohn)*

☐CAN 731 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: The Biological Basis of the New International Classification of Lymphomas *(Elaine S. Jaffe)*

☐CAN 732 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: *FHIT* Gene Alterations in Cancer *(Kay Huebner)*

☐CAN 733 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Advances in Oncological Imaging *(Michael J. Welch)*

☐CAN 734 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Cancer Survivorship Research *(Anna T. Meadows)*

☐CAN 735 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: p53 and Genetic Instability *(Geoffrey M. Wahl)*

☐CAN 736 **(2 cass., $23)** Symposium 5: Demystifying the Role of Cytokines in Tumor Immunobiology: Status and Future Utility

☐CAN 737 **(2 cass., $23)** Symposium 6: Epidemiology and Pathogenesis of Secondary Cancers

☐CAN 738 **(2 cass., $23)** Symposium 7: Animal Models for Functional Analysis of Tumor Suppressor Genes

☐CAN 739 **(3 cass., $34.50)** Minisymposium Pharmacology/Therapeutics 17: Molecular Mechanisms of Drug Resistance

☐CAN 740 **(2 cass., $23)** Minisymposium Molecular Biology/Biochemistry 11: Novel Tumor Suppressor Genes and New Interactions of Known Tumor Suppressor Genes

☐CAN 741 **(2 cass., $23)** Minisymposium Clinical Investigations 4: Clinical Relevance of p53 Mutations

☐CAN 742 **(3 cass., $34.50)** Minisymposium Carcinogenesis 6: Gene Regulation in Tumor Initiation, Promotion, and Progression

☐CAN 743 **(1 cass., $11.50)** Controversy Session 1: What is the Role of Prophylactic Surgery in Breast and Ovarian Cancer?

☐CAN 744 **(1 cass., $11.50)**
- Presentation of the Fifth Gertrude Elion Cancer Research Award
- Presidential Address: "Cancer Genetics is a Little Like Insanity; We Have Gotten It from Our Kids! A Perspective on Past and Future Lessons from Genetic Studies of Childhood Cancer *(Louise C. Strong)*

☐CAN 745 **(1 cass., $11.50)** Sixth American Cancer Society Award Lecture on Cancer Epidemiology and Prevention: "Etiology, Natural History, Management, and Molecular Genetics of HNFCC (Lynch Syndromes): Genetic Counseling Implications" *(Henry T. Lynch)*

☐CAN 746 **(2 cass., $23)** Minisymposium Pharmacology/Therapeutics 23: Human Gene Therapy: Clinical Trials and New Approaches

☐CAN 747 **(2 cass., $23)** Minisymposium Biology 14: Regulation of Apoptosis

☐CAN 748 **(3 cass., $34.50)** Minisymposium Immunology/Biological Therapy 7: Tumor Antigen Presentation, Costimulation, Normal and Abnormal T-Cell Activation

☐CAN 749 **(3 cass., $34.50)** Minisymposium Molecular Biology/Biochemistry 15: Regulation of Gene Expression in Signal Transduction

☐CAN 750 **(2 cass., $23)** Symposium 8: Prostate Cancer

☐CAN 751 **(2 cass., $23)** Symposium 9: Cell Cycle Regulation

☐CAN 752 **(2 cass., $23)** Symposium 10: Gene Interactions with the Environment/Carcinogenesis

☐CAN 753 **(1 cass., $11.50)** "NCI Listens": A Session Organized by the National Cancer Institute's Board of Scientific Advisors

☐CAN 754 **(1 cass., $11.50)** Annual Business Meeting of the American Association for Cancer Research, Inc.

☐CAN 755 **(1 cass., $11.50)** NCI Training Branch Workshop

☐CAN 756 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Approaches to Using Genes as Cancer Therapies *(Jack A. Roth)*

☐CAN 757 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Mechanisms Regulating p53 Function *(Guillermina Lozano)*

☐CAN 758 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Farnesyl Transferase Inhibitors: Attacking the Molecular Basis of Cell Transformation *(Allen I. Oliff)*

☐CAN 759 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: *Helicobacter pylori* as a Carcinogen *(Pelayo Correa)*

☐CAN 760 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: New Approaches to Overcoming Multidrug Resistance *(Alan F. List)*

☐CAN 761 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: Human Cancer Genetics Travels to Cyberspace *(Kenneth H. Buetow)*

☐CAN 762 **(1 cass., $11.50)** Meet-the-Expert Sunrise Session: DNA Methylation in Cancer *(Stephen B. Baylin)*

☐CAN 763 (1 cass., $11.50) NIH Grants: So What's New?
☐CAN 764 (2 cass., $23) Symposium 11: Novel Clinical Trials Based on Genetics and Molecular Therapeutics
☐CAN 765 (2 cass., $23) Symposium 12: Identification and Management of Genetic-High-Risk Individuals
☐CAN 766 (2 cass., $23) Symposium 13: Mechanisms of Cellular Senescence
☐CAN 767 (2 cass., $23) Minisymposium Pharmacology/Therapeutics 29: Drug Targeting
☐CAN 768 (3 cass., $34.50) Minisymposium Endocrinology and Signal Transduction 5: Novel Pathways in Endocrine Signal Transduction
☐CAN 769 (3 cass., $34.50) Minisymposium Clinical Investigations 9: From Biology to the Clinical Management of Breast Cancer
☐CAN 770 (2 cass., $23) Minisymposium Biology 18:Regulation of Cell Cycle
☐CAN 771 (1 cass., $11.50) Late-Breaking Research Session
☐CAN 772 (1 cass., $11.50) Twenty-First Richard and Hinda Rosenthal Foundation Award Lecture: "There are no Bad Anticancer Agents - Only Bad Clinical Trial Designs" *(Daniel D. Von Hoff)*
☐CAN 773 (1 cass., $11.50) Sixteenth Bruce F. Cain Memorial Award Lecture: "DNA Topoisomerases in Cell Proliferation and Cell Death *(Leroy Fong Liu)*
☐CAN 774 (3 cass., $34.50) Minisymposium Pharmacology/Therapeutics 35: DNA Repair and Drug Resistance
☐CAN 775 (3 cass., $34.50) Minisymposium Biology 23: Induction and Inhibition of Angiogenesis
☐CAN 776 (3 cass., $34.50) Minisymposium Clinical Investigations 11: Applied and Molecular Biology for Diagnosis and Clinical Studies in Urological Malignancies
☐CAN 777 (3 cass., $34.50) Minisymposium Epidemiology/Prevention 10: Biomarkers and Chemoprevention Studies
☐CAN 778 (2 cass., $23) Symposium 14: Breast Cancer Genes *(Tom Frank's presentation not recorded)*
☐CAN 779 (2 cass., $23) Symposium 15: Apoptosis and Cancer Therapy
☐CAN 780 (2 cass., $23) Symposium 16: Cellular Responses to Endogenous *versus* Environmentally Induced DNA Damage
☐CAN 781 (1 cass., $11.50) DeWitt S. Goodman Lecture: "Methyl Insufficiency in Cancer" *(Lionel A. Poirier)*
☐CAN 782 (1 cass., $11.50) Sixteenth Cornelius P. Rhoads Memorial Award Lecture: Tumor Suppressor Gene Mutations in Mice *(Tyler Jacks)*
☐CAN 783 (1 cass., $11.50) Meet-the-Expert Sunrise Session: Challenges in the Clinical Development of Growth-modulating Agents *(Daniel D. Von Hoff)*
☐CAN 784 (2 cass., $23) Meet-the-Expert Sunrise Session: Barrett's Esophagus: A Model of Human Neoplastic Progression *(Brian J. Reid)*
☐CAN 785 (1 cass., $11.50) Meet-the-Expert Sunrise Session: Colon Cancer Genes *(Stanley R. Hamilton)*
☐CAN 786 (1 cass., $11.50) Meet-the-Expert Sunrise Session: Retinoids and Cancer Chemoprevention *(Waun Ki Hong)*
☐CAN 787 (1 cass., $11.50) Meet-the-Expert Sunrise Session: Reversion of Human Breast Epithelial Tumor Cells and Tumors by Manipulation of the Microenvironment: Implications for Epithelial Biology and Tumor Therapy *(Mina J. Bissell)*
☐CAN 788 (1 cass., $11.50) Meet-the-Expert Sunrise Session: Tumor Virology *(Philip J. Browning)*
☐CAN 789 (1 cass., $11.50) Meet-the-Expert Sunrise Session: Transcriptional Control of Programmed Cell Death in the Genesis and Therapy of Human Acute Leukemias *(A. Thomas Look)*
☐CAN 790 (1 cass., $11.50) Symposium 17: Diagnostic, Prognostic, and Therapeutic Aspects of Tumor Suppressor Genes
☐CAN 791 (2 cass., $23) Symposium 18: Signaling Pathways for Novel Therapeutics
☐CAN 792 (2 cass., $23) Symposium 19: Telomerase and Clinical Applications
☐CAN 793 (3 cass., $34.50) Minisymposium Pharmacology/Therapeutics 42: Thymidylate Synthase Inhibitors
☐CAN 794 (3 cass., $34.50) Minisymposium Immunology/Biological Therapy 12: Cancer Vaccines
☐CAN 795 (2 cass., $23) Minisymposium Carcinogenesis 16: Biomarkers in Risk Assessment
☐CAN 796 (3 cass., $34.50) Minisymposium Molecular Biology/Biochemistry 26: Signal Transduction II
☐CAN 797 (1 cass., $11.50) Controversy Session 2: Estrogen Replacement Therapy: Beneficial or Harmful?
☐CAN 798 (1 cass., $11.50) Controversy Session 3:What Are the Appropriate Therapeutic Uses of Hematopoietic Growth Factors?
☐CAN 799 (2 cass., $23) Minisymposium Pharmacology/Therapeutics 44: Signal Transduction: Tyrosine Kinase Inhibitors
☐CAN 7100 (2 cass., $23) Minisymposium Biology 29: TGFB
☐CAN 7101 (3 cass., $34.50) Minisymposium Molecular Biology/Biochemistry 27: Telomerase II
☐CAN 7102 (3 cass., $34.50) Minisymposium Carcinogenesis 17: Molecular Responses to DNA Damage
☐CAN 7103 (2 cass., $23) Symposium 20: Metastasis, Invasion, and Angiogenesis: Mechanisms and Therapeutic Strategies
☐CAN 7104 (2 cass., $23) Symposium 21: Colon Cancer

The following programs will be available on video cassette (Allow 4 - 6 weeks for delivery.)
EACH VIDEO PROGRAM CONSISTS OF ONE CASSETTE, $39.00

☐CAN 744V (1 cass., $39)
- Presentation of the Fifth Gertrude Elion Cancer Research Award
- Presidential Address: "Cancer Genetics is a Little Like Insanity; We Have Gotten It from Our Kids! A Perspective on Past and Future Lessons from Genetic Studies of Childhood Cancer *(Louise C. Strong)*

☐CAN 745V (1 cass., $39) Sixth American Cancer Society Award Lecture on Cancer Epidemiology and Prevention: "Etiology, Natural History, Management, and Molecular Genetics of HNFCC (Lynch Syndromes): Genetic Counseling Implications" *(Henry T. Lynch)*
☐CAN 772V (1 cass., $39) Twenty-First Richard and Hinda Rosenthal Foundation Award Lecture: "There are no Bad Anticancer Agents - Only Bad Clinical Trial Designs" *(Daniel D. Von Hoff)*
☐CAN 773V (1 cass., $39) Sixteenth Bruce F. Cain Memorial Award Lecture: "DNA Topoisomerases in Cell Proliferation and Cell Death *(Leroy Fong Liu)*
☐CAN 782V (1 cass., $39) Sixteenth Cornelius P. Rhoads Memorial Award Lecture: Tumor Suppressor Gene Mutations in Mice *(Tyler Jacks)*

BONUS OPTION
BUY ENTIRE SET OF VIDEO CASSETTES, AND RECEIVE A 10% DISCOUNT.

PLEASE COMPLETE AND RETURN ENTIRE FORM

PLEASE PRINT CAN

SUB-TOTAL AUDIO TAPE ORDER $ _____
SUB-TOTAL VIDEO TAPE ORDER $ _____
(IL RESIDENTS ADD 8.75% SALES TAX) $ _____
AUDIO $4.00 SHIPPING & HANDLING $ $4.00
VIDEO $4.00/TAPE inside U.S.; $8.00 outside U.S.; S & H ($24 MAX) $ _____
TOTAL (IN U.S. FUNDS) $ _____

SEND TO: TEACH 'EM, 160 EAST ILLINOIS ST., CHICAGO, IL 60611
PHONE: (312) 467-0424 • FAX: (312) 467-9271 • TOLL-FREE: 1-800-225-3775
E-MAIL: teachem@bonus-books.com

VIDEO ORDERS
(Please check one)
☐ VHS
☐ PAL *($15 conversion surcharge)*

☐ CHECK ENCLOSED PAYABLE TO TEACH 'EM
☐ VISA ☐ MC ☐ AMEX
$25 MINIMUM ON CREDIT CARD ORDERS
CARD # _____
EXPIRATION DATE _____

NAME _____ TITLE _____
ORGANIZATION _____
ADDRESS (NO PO BOXES) _____ CITY _____ STATE _____ ZIP _____
SIGNATURE _____ TELEPHONE ( ) _____

PLEASE NOTE: Any defective tapes will be replaced, but tapes are nonrefundable.

SEPTEMBER 26-30, 1997

Tumor Suppressor Genes

Co-Sponsored by the National Cancer Institute of Canada
Chairpersons: Stephen H. Friend, Seattle, WA; Philip Branton, Montreal, Quebec, Canada
Victoria Conference Centre, Victoria, BC, Canada

OCTOBER 17-21, 1997

Transcriptional Control of Proliferation, Differentiation, and Development

Chairpersons: Robert N. Eisenman, Seattle, WA; Elaine V. Fuchs, Chicago, IL
The Sagamore Resort, Bolton Landing (Lake George), NY

DECEMBER 12-16, 1997

DNA Methylation, Imprinting, and the Epigenetics of Cancer

Chairpersons: Peter A. Jones, Los Angeles, CA; Stephen B. Baylin, Baltimore, MD; Timothy H. Bestor, New York, NY
El Conquistador Resort and Country Club, Las Croabas, PR

JANUARY 9-13, 1998

Molecular Mechanisms of Apoptosis Regulation

Chairpersons: John C. Reed, La Jolla, CA; Vishva M. Dixit, Ann Arbor, MI
Renaissance Esmeralda Resort, Indian Wells (Palm Springs), CA

JANUARY 24-28, 1998

Angiogenesis and Cancer

Chairpersons: Judah Folkman, Boston, MA; Michael Klagsbrun, Boston, MA
Hyatt Orlando, Orlando, FL

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
Abstract Deadline: October 28, 1997

JUNE 14-18, 1998

Proteases and Protease Inhibitors in Cancer

Co-Sponsored by the Danish Society for Pathology
Chairpersons: Keld Dano, Copenhagen, Denmark; Henri Rochefort, Montpellier, France; Lynn M. Matrisian, Nashville, TN
Nyborg Strand Conference Center, Fyn, Denmark

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: aacr@aacr.org

SATURDAY, MARCH 28, 1998

8:00 a.m.-1:30 p.m.	Associate Member Council Grant Writing Session
9:00 a.m.-8:00 p.m.	On-site Registration
10:00 a.m.-12:00 noon	Public Session
12:00 noon-6:30 p.m.	Educational Sessions
2:00-6:00 p.m.	Methods Workshops
6:30-8:00 p.m.	WICR Guest Lecture and Reception
8:00-10:00 p.m.	Opening Mixer

SUNDAY, MARCH 29, 1998

7:00 a.m.-4:00 p.m.	On-site Registration
7:00-8:00 a.m.	Meet-the-Expert Sunrise Sessions
8:00 a.m.-12:15 p.m.	Opening Events:
8:00 -9:00 a.m.	Presidential Address
9:00 a.m.-12:00 noon	Plenary Session
12:00 noon-12:15 p.m.	Elion Award Ceremony
8:00 a.m.-12:00 noon	Poster Sessions
12:00 noon-5:00 p.m.	Exhibit Show Kickoff
12:15 p.m.-1:15 p.m.	Clowes Award Lecture
1:15-5:15 p.m.	Poster and Poster Discussion Sessions
1:30-5:00 p.m.	Minisymposia
2:15-4:45 p.m.	Symposia
5:30-6:30 p.m.	AACR-Pezcoller Foundation Award Lecture
6:30-9:00 p.m.	Minority Issues Committee Careers in Cancer Research Symposium
8:00-10:30 p.m.	Annual Reception for All Registrants

MONDAY, MARCH 30, 1998

7:00 a.m.-4:00 p.m.	On-site Registration
7:00-8:00 a.m.	Meet-the-Expert Sunrise Sessions
8:00-10:30 a.m.	Symposia
8:00 a.m.-12:00 noon	Poster and Poster Discussion Sessions
8:15-11:45 a.m.	Minisymposia
10:00 a.m.-4:00 p.m.	Exhibit Show
10:45 a.m.-12:00 noon	Controversy Sessions
12:00 noon-1:00 p.m.	AACR-Burchenal Award Lecture
1:00-2:15 p.m.	Controversy Session
1:00-5:00 p.m.	Poster and Poster Discussion Sessions
1:15-2:15 p.m.	AACR-American Cancer Society Award Lecture
1:30-5:00 p.m.	Minisymposia
2:30-5:00 p.m.	Symposia
5:15-6:30 p.m.	Annual Business Meeting of Members

TUESDAY, MARCH 31, 1998

7:00 a.m.-4:00 p.m.	On-site Registration
7:00-8:00 a.m.	Meet-the-Expert Sunrise Sessions
8:00-10:30 a.m.	Symposia
8:00 a.m.-12:00 noon	Poster and Poster Discussion Sessions
8:15-11:45 a.m.	Minisymposia
10:00 a.m.-4:00 p.m.	Exhibit Show
10:45 a.m.-12:15 p.m.	Late-Breaking Research Session
12:15-1:15 p.m.	Rosenthal Foundation Award Lecture
1:15-5:15 p.m.	Poster and Poster Discussion Sessions
1:30-2:30 p.m.	Cain Award Lecture
1:30-5:00 p.m.	Minisymposia
2:45-3:45 p.m.	Rhoads Award Lecture
4:00-6:30 p.m.	Symposia

WEDNESDAY, APRIL 1, 1998

7:00 a.m.-2:00 p.m.	On-site Registration
7:00-8:00 a.m.	Meet-the-Expert Sunrise Sessions
7:30 a.m.-11:30 noon	Poster Discussion Sessions
8:00-10:30 a.m.	Symposia
8:00 a.m.-12:00 noon	Poster Sessions
8:15 a.m.-11:45 a.m.	Minisymposia
9:00 a.m.-12:00 noon	Exhibit Show
10:45 a.m.-12:00 noon	Controversy Sessions
12:00 noon-4:00 p.m.	Poster Discussion Sessions
12:15-3:45 p.m.	Minisymposia
12:30-3:00 p.m.	Symposia
4:00 p.m.	Annual Meeting Ends

Guidelines for Submitting Disks to American Association for Cancer Research Publications

The word processing packages that we prefer are as follows:

- MacWrite
- Microsoft Word (DOS, Windows, and Macintosh)
- WordPerfect (DOS, Windows, and Macintosh)
- XyWrite (DOS and Windows)

Also acceptable:

- Ability
- AmiPro
- $A_{M}S$-TEX
- Appleworks
- ArborTEX
- ArborText
- ClarisWorks WP
- CPT 8000
- CTOS
- Diablo
- DisplayWrite
- Duet
- Einstein
- Enable
- EXP
- Final Word
- FullWrite
- GemWord Plus
- IBM Writing Assistant
- Interleaf
- LATEX
- Latex
- Leading Edge
- Lotus Manuscript
- Lotus Write
- Mass 11
- MS Windows Write
- MS Works
- MS Works WP Mac
- Multimate
- Multimate Advantage
- Nibia
- Nisus (to ASCII file)
- Notewriter
- Obun
- OfficeWriter
- PC Write
- PFS First Choice
- Professional Write
- Q&A Write
- Quark XPress
- RagTime MS Works (to ASCII file)
- Rich Text Format
- RSG (to ASCII file)
- Signature
- SLITEX
- SmartWhere
- SmartWrite II
- SoloWriter
- Sprint
- Stx
- SunWrite
- Symphony
- TEX
- TEX78
- Text EXecutive
- Textures
- Total Word
- Troff
- μTEX
- Volkswriter
- VuWriter
- Wang OIS
- Wang WPS
- Wang Writer
- Window Works
- Windows Write
- WiziWord
- Wordstar
- Wordstar 2000
- WriteNow
- Xerox

Software packages that we are unable to translate:

- FrameMaker
- PageMaker
- Ready, Set, Go
- Scientific Writer

Disks produced on IBM or IBM-compatible computers are preferred, but those produced on some Apple or Wang computers can also be converted. Because of the file structures and internal coding, we cannot accept disks created on desktop publishing systems or those created on proprietary typesetting systems. We also cannot guarantee that all special characters can be translated. Tabular and mathematical material, such as equations, will not be captured from the disk but will be rekeyed.

To expedite work and for your own security, we do require that you submit a hard copy printout of the disk file. The tables and equations will be keyed from this hard copy. We also need to know the name of the file to be converted, the type of hardware (e.g., IBM PC) on which the files were created, the operating system (e.g., DOS 3.3), and the version of the software (e.g., WordPerfect 5.1) used to create the file.

PLEASE FILL OUT ALL INFORMATION ON REVERSE SIDE AND SUBMIT THIS FORM WITH YOUR DISK. DISKS WILL NOT BE PROCESSED WITHOUT THIS INFORMATION.

DISK SUBMISSION FORM

AACR journals are now using personal computers to copyedit manuscripts accepted for publication. When submitting a revised manuscript, authors are encouraged to submit an electronic disk of the paper along with the required four hard copy printouts. Disks will ultimately be returned to the authors.

See reverse for the word processing packages that can be accepted.

File preparation

Please be sure that the file you send is the most recent version of the manuscript and that it matches the most recently submitted printed copy. The file should contain all the parts of the manuscript in **one** file. Mathematical and tabular material, however, will be processed in the traditional manner and may be excluded from the disk file.

Note: AACR does not assume responsibility for errors in conversion of customized software, newly released software, or special characters.

Please label the outside of the disk with the journal name, the first author's name, a partial title of the manuscript, and the name of the computer file used to access the manuscript on disk. To process your disk efficiently, we need the following information. Please be sure to provide **ALL** the information.

Name used to access paper on disk: _____
Name of computer used (*e.g.*, IBM/PS2): _____
Operating system and version (*e.g.*, DOS 3.3): _____
Word processing program and version (*e.g.*, WordPerfect 5.0): _____
[See reverse for acceptable programs.]

Manuscript number: _____
First author: _____
Corresponding author (if different from first author): _____
Telephone/FAX numbers: _____

Cancer Epidemiology Biomarkers & Prevention

Continued

Letters to the Editor

AACR Bulletin Board

ASPO Bulletin Board

Instructions for Authors

October 1997
Volume Six
Number Ten
Pages 757–860
ISSN 1055-9965

Cancer Epidemiology Biomarkers & Prevention

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

Editorial

Research Articles

Continued on Inside Back Cover