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BENEFITS OF MEMBERSHIP
The American Association for Cancer Research (AACR), a scientific society of over 10,000 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. an advance copy of the Program and Proceedings of the American Association for Cancer Research pertaining to each annual meeting;
3. reduced registration rates at annual meetings;
4. priority notice of small, focussed meetings in the AACR's exciting series of Special Conferences in Cancer Research;
5. an up-to-date Membership Directory of thousands of researchers in the cancer field;
6. opportunities for participation in AACR meetings in North America and abroad with other scientific societies around the world;
7. receipt of AACR Newsletters and other important announcements;
8. early notification of and reduced rates for participation in the AACR Employment Register;
9. an up-to-date Membership Directory of thousands of researchers in the cancer field;
10. the professional benefits of AACR's public education activities concerning funding for cancer research and press coverage of the latest research findings;
11. participation in Summer Workshops that foster networking opportunities and science education for young investigators; and
12. 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:

<table>
<thead>
<tr>
<th>Receipt of Application in AACR Office</th>
<th>Notification of Candidate</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1</td>
<td>March</td>
</tr>
<tr>
<td>May 1</td>
<td>July</td>
</tr>
<tr>
<td>September 1</td>
<td>November</td>
</tr>
</tbody>
</table>

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 supply the responses requested at the bottom of the application form in the section entitled "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 secondor who is an active, corresponding, emeritus, or honorary member of the AACR (at least one copy must be a signed, original letter). -OR- The secondor may supply the responses requested at the bottom of the application form in the section entitled "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:
American Association for Cancer Research
Public Ledger Building, Suite 816
150 S. Independence Mall West
Philadelphia, PA 19106-3483
Phone: 215-440-8500
FAX: 215-440-9313

RESPONSIBILITIES OF MEMBERSHIP
Candidates should be aware of the following responsibilities of membership in the AACR. Active members must pay annual dues. In 1996 annual dues for active members are $160, $95 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 ($80 in 1995) 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
Executive Director
**APPLICATION FOR ACTIVE OR CORRESPONDING MEMBERSHIP**

**NAME OF CANDIDATE:** 
LAST FIRST M.I. 

**DATE OF BIRTH:** 

**PRESENT POSITION/TITLE:** 

**INSTITUTIONAL AFFILIATION:** 

**INSTITUTIONAL ADDRESS:**

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

**TELEPHONE NUMBER:** 
**FAX NUMBER:**

**E-MAIL NUMBER (CARRIER):** 

**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** (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 NOMINATED BY**: 
(Please print)

**CANDIDATE SECONDED BY**: 
(Please print)

**CANDIDATE IS APPLYING FOR** (Check one): □ ACTIVE □ CORRESPONDING MEMBERSHIP

**STATEMENT OF SUPPORT** (in place of letters of recommendation)
Instead of submitting letters of recommendation, either the nominator or the seconder or both may complete the following section:

How long has the candidate worked in the field of cancer research? ____ years
Will the candidate make a long-term contribution to cancer research? Yes No
Does the candidate's research adhere to accepted ethical standards? Yes No
I therefore recommend this candidate for membership in the American Association for 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.

(This form may be reproduced.)
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 paper 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. 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 which contains abstracts of all papers being presented at each annual meeting;
3. the privilege of registering for the annual meeting at the low student rate (This rate is otherwise available only to predoctoral students.);
4. preferred access to the AACR Employment Register;
5. optional subscriptions to the Association’s high-quality journals Cancer Research, Cell Growth & Differentiation, Cancer Epidemiology, Biomarkers & Prevention, and Clinical Cancer Research at reduced member rates;
6. priority notification of events in the AACR’s series of special conferences on timely subjects in the field;
7. reduced registration rates at special conferences;
8. the receipt of AACR newsletters, meeting announcements, and an up-to-date membership directory; and
9. 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. The application form 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 1994 are $30 for associate members residing in the Americas and $40 for residents of other countries. For 1995 these rates are $35 and $45, respectively. 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 1994 for the forthcoming annual meeting must have paid dues for 1994. Any newly elected associate members of the AACR who have already purchased subscriptions to Cancer Research, Cell Growth & Differentiation, Cancer Epidemiology, Biomarkers & Prevention, and Clinical Cancer Research 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 current 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 1994 may retain associate membership until December 31, 1998. The Board of Directors may terminate the membership of an associate member whose dues are in arrears for two years.

Margaret Foti
Executive Director
AMERICAN ASSOCIATION FOR CANCER RESEARCH, INC.
Public Ledger Building · Suite 816 · 150 S. Independence Mall West · Philadelphia, PA 19106-3483

APPLICATION FOR ASSOCIATE MEMBERSHIP

NAME OF CANDIDATE: ____________________________ DATE OF BIRTH: ____________
LAST FIRST M.I.
INSTITUTIONAL AFFILIATION: ____________________________________________
INSTITUTIONAL ADDRESS: ______________________________________________

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

TELEPHONE NUMBER: __________________________________ FAX NUMBER: ____________

PRESENT ACADEMIC STATUS/TITLE (Please check only one): ___________________________
___ Graduate Student ___ Medical Student ___ Postdoctoral Fellow

PRIMARY FIELD OF RESEARCH (Please check one):
___ Biochemistry and Biophysics ___ Biostatistics ___ Carcinogenesis
___ Cellular Biology and Genetics ___ Clinical Investigations ___ Endocrinology
___ Epidemiology ___ Immunology ___ Molecular Biology and Genetics
___ Preclinical Pharmacology and ___ Virology ___ Other: ______________________
Experimental Therapeutics

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 type or print name of AACR active member in good standing.)

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. 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 1994 dues are $30 for associate members residing in the Americas and $40 for residents of other countries. For 1995, these rates will be $35 and $45, respectively.

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 ___ 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.

(This form may be reproduced.)
ADVANCE REGISTRATION FORM

AMERICAN ASSOCIATION FOR CANCER RESEARCH
86TH ANNUAL MEETING - TORONTO, ONTARIO, CANADA - March 18-22, 1995

Return to
American Association for Cancer Research • Public Ledger Building, Suite 816
150 S. Independence Mall West • Philadelphia, PA 19106-3483 • FAX: 215-440-9313

DEADLINES:
• February 3, 1995 for reduced rates and to ensure receipt of meeting materials by mail in late February or early March
• February 24, 1995 for all registration by mail (Registration forms received after this date will not be accepted.
  Registration will be conducted at the Metro Toronto Convention Centre from March 18-22.)
• March 15, 1995 to cancel registration and receive refund less cancellation fee (US$25/C$35)

(Please print)

NAME: ____________________________ TITLE: ____________________________
Last First/Middle Initial ACR Member Number

ADDRESS: ____________________________ Institution
Street, Building, or Post Office Box ____________________________ State or Province ____________________________ Zip/Postal Code ____________________________ Country (if not U.S.) ____________________________

TELEPHONE NO.: ____________________________ FAX NO.: ____________________________

☐ Check this box if you have a physical disability and have special requirements for transportation, hotel accommodations, or other facilities in connection with the meeting. A member of the Association Staff will contact you.

WHAT IS YOUR PRIMARY FIELD OF RESEARCH (Please check only one):
☐ Biochemistry and Biophysics ☐ Carcinogenesis ☐ Cellular Biology & Genetics ☐ Clinical Investigations
☐ Endocrinology ☐ Epidemiology ☐ Experimental Therapeutics ☐ Immunology ☐ Molecular Biology & Genetics
☐ Prevention ☐ Radiobiology/Radiation Oncology ☐ Virology ☐ Other (please specify): ____________________________

ARE YOU THE PRESENTER OF AN ABSTRACT SUBMITTED FOR THE 1995 AACR MEETING? ☐ Yes ☐ No

ON WHICH DAYS WILL YOU ATTEND THE 1995 AACR ANNUAL MEETING?
☐ Saturday, March 18 ☐ Sunday, March 19 ☐ Monday, March 20 ☐ Tuesday, March 21 ☐ Wednesday, March 22

PAYMENT OF REGISTRATION

Fees may be paid by check or with a MasterCard, VISA, American Express, or Eurocard account. All payments must be made in U.S. or Canadian currency, and all checks must be drawn on a U.S. or Canadian bank. Payment must accompany this form; purchase orders will not be accepted as payment. Honorary members may register gratis.

On or Before After
Feb. 3 Feb. 3 US$/C$ US$/C$
☐ Active/Corresponding Member Rate 105/150 135/193
☐ Nonmember Rate 220/315 255/365
☐ Emeritus Member Rate (includes a copy of AACR Proceedings) 50/72 50/72
☐ Associate Member/Student Rate* (does not include a copy of AACR Proceedings) 50/72 60/86
☐ AACR Proceedings* 35/50 35/50
☐ Workshop/Education Session Fee (Members and Students @ US$35/C$50; Nonmembers @ US$50/C$72) ____________
☐ Overseas Airmail Surcharge† 22/32 N.A.
☐ Program on Diskette (check below) 15/22 15/22
☐ IBM 5 1/4" ☐ IBM 3 1/2" ☐ Macintosh 3 1/2"

TOTAL ENCLOED OR CHARGED ____________________________

☐ Check payable to AACR, Inc. in U.S. or Canadian currency, drawn on a U.S. or Canadian bank

METHOD OF PAYMENT

☐ MasterCard ☐ VISA ☐ American Express ☐ Eurocard

☐ Person/Institution Issuing Check Check No. ____________________________

Card Number ____________________________ Expiration Date ____________________________

☐ Additional copy of the Proceedings

*Students must enclose a statement, signed by the registrar, dean, or department head of their university or college on official letterhead, confirming their status. Postdoctoral fellows or physicians in training do not qualify for the student registration rate unless they are Associate Members of the AACR. An application for Associate Membership may accompany this form, but these should be submitted well before the February 3 deadline, as review of the Associate Membership application may delay registration.

+AACR members with paid-up subscriptions to an AACR journal and registrants who pay the nonmember fee receive the Proceedings automatically. If these members or nonmembers check this box and pay the fee, they will receive an additional copy of the Proceedings.

Optional payment for registrants outside of the U.S. and Canada only. Registrants paying this surcharge will receive meeting publications via airmail-printed matter before the annual meeting.

AACR members in good standing will receive copies of the Program and Proceedings prior to the meeting. Nonmember and student registrants who meet the February 3 deadline will also receive the Program and (if they have purchased it) the Proceedings prior to the meeting. Nonmembers and students who do not meet the deadline must pick up publications at the meeting site.

REFUND POLICY

Refunds on registration fees will be granted on written request received in the AACR Office by March 15, 1995. Requests received after this date will not be honored. Receipts and badges (if they have been mailed) must be returned to the AACR Office with the refund request. A cancellation fee of US$25/C$35 will be deducted from all refunds to cover administrative costs.

(32) This form may be reproduced.)
The Program of the 1995 Annual Meeting of the American Association for Cancer Research is now available on diskettes for either IBM PC and compatible or Macintosh computers.

The computerized AACR Meeting Program provides abstract numbers, titles, author names, dates, times, and locations of scheduled presentations. It includes a modified version of the powerful search software produced by Research Information Systems, Inc., for Reference Update, a microcomputer-based reference retrieval service. Using this software, you can:

- Define search strategies with any combination of author names, words, phrases, and session titles
- Quickly search through more than 3900 presentations
- View on the computer screen all the events that interest you
- Print a personal meeting itinerary that "flags" potential scheduling conflicts

To order your set of diskettes, check the appropriate box on your advance registration form or complete the diskette order form below and mail it to the AACR Headquarters Office no later than February 17, 1995. Payment must accompany your order. The price per set of diskettes is $15.

If you order by February 17, your diskettes will be mailed to you approximately two weeks before the meeting.

ORDER FORM
AACR Annual Meeting Program on Diskettes

Please send me ___ set(s) of the 1995 AACR Annual Meeting Program on Diskettes @ $15/set.

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Computer Diskette Order
American Association for Cancer Research
Public Ledger Building, Suite 816
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Philadelphia, PA 19106-3483
Guidelines for Submitting Disks to American Association for Cancer Research Publications

The word processing packages that we prefer are as follows:

- XyWrite III Plus (for the IBM)
- WordPerfect 4.2, 5.0, 5.1 (for the IBM)
- WordPerfect (for the Mac)
- Wordstar (for the IBM)
- Microsoft Word (for the IBM)
- Microsoft Word Macintosh
- WordPerfect (for the Mac)
- Wang OIS (WPS)

Also acceptable:

- Apple II DOS 3.3
- Apple with Appworks Software
- Apple III Plus DOS 3.3
- Apple Macintosh 400K Disc/
  MacWrite 2.2 (text)
- Apple Macintosh Plus 800K Disc/
  MacWrite 4.5 (text)
- CPT 8000
- DEC WPS-8
- DEC Decmate II
- DEC Decmate III
- Display Write 3
- Display Write 4
- IBM Displaywriter Word Processor 6580
- Lanier Business One Step
- Lanier No Problem
- Lanier Super No Problem
- MASS-11 PC
- Multimate
- PC Write
- PFS Professional Write
- Volkswriter 4.0

New releases of word processing software are not always immediately available for conversion. In addition, 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.

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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: ____________________________________________________

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EDUCATIONAL SESSIONS
86TH AACR ANNUAL MEETING
Saturday, March 18, 1995, 4:00-6:00 p.m.

Four educational sessions will be offered simultaneously during the upcoming annual meeting. A registration fee of US$35 or C$50 for members and predoctoral students, and US$50 or C$72 for nonmembers will be charged. The intent of these sessions is to provide an overview of an important area of cancer research for scientists who are not specialists in the area. Speakers have been asked to cover all significant developments in the fields. Registrants in each session will receive a syllabus including a selected bibliography of highly relevant articles.

Educational Session 1
Molecular Modeling to Medical Monitoring: The Development of New Anticancer Agents

Chairperson
DANIEL D. VON HOFF, Cancer Therapy and Research Center, San Antonio, TX.

Elegant basic cancer research frequently culminates in the development of a potentially therapeutic agent. However, an incomplete understanding of the difficulties in carrying a new therapeutic agent from the bench to the bedside frequently results in a tremendous slowing down of the drug development process. Currently, the time it takes to develop a new anticancer drug is approximately seven years from the time it is conceived until the first trial in patients (the IND), plus an additional seven years from the time the first patient is treated until the drug is approved by regulatory agencies.

The purpose of this educational session is to educate attendees on what preclinical work is necessary to obtain an IND for the first clinical trial in patients. A second part of the session will deal with special problems in the design of clinical trials including Phase I, Phase II, and Phase III studies. Discussions will center around agents which are particularly difficult to develop (such as angiogenesis inhibitors or differentiating agents). Finally, the development of agents for prevention -- a particularly challenging area of clinical trials research -- will be discussed. It is hoped that attendees will emerge from the session with a greater understanding of the steps necessary for the translation of a basic science finding from the bench to the bedside.

Program

Overview. Daniel D. Von Hoff.

What Is Really Necessary for Beginning a Trial with a New Agent in Patients? David Ross Parkinson, National Cancer Institute, Bethesda, MD.

Special Problems in the Design of Clinical Trials. Daniel D. Von Hoff.

Clinical Trials with Prevention Agents. David S. Alberts, University of Arizona Cancer Center, Tucson, AZ.

Educational Session 2
Gene Therapy

Chairperson
ALBERT B. DEISSEROTH, UT M.D. Anderson Cancer Center, Houston, TX.

Current approaches to the use of genetic modification of somatic cells for the treatment of cancer will be reviewed including: genetic chemoprotection (to protect the normal hematopoietic cells from chemotherapy induced myelosuppression); recombinant anticancer vaccines; adenoviral vectors for cancer therapy; and molecular immunoenhancement therapy for cancer.

Program

Recombinant Vaccines for Cancer Therapy. Jeffrey Schlam, National Cancer Institute, Bethesda, MD.


Genetic Immunoenhancement for Gene Therapy. Gary Nabel, University of Michigan Medical Center, Ann Arbor, MI.

Adenoviruses in Genetic Therapy. Ronald Crystal, Cornell University Medical College, New York, NY.
Deficits in DNA repair have recently been firmly associated with both inherited and sporadic human cancers. The enzymes have been annotated as "molecules of the year". We will consider the recent reports on multiple mutations in cancer, the relationship of altered DNA repair to microsatellite instability, the occurrence of microsatellite instability in inherited human colon cancer, and the reports on microsatellite instability in both sporadic malignancies and premalignant diseases. Emphasis in this session will be on methods, clinical implications, hands-on assays, and prognostic implications.

Program

Multiple Mutations in Cancer. Lawrence A. Loeb.
DNA Replication, Fidelity, and Mismatch Repair in Cancer. Thomas A. Kunkel, N.I.E.H.S., Research Triangle Park, NC.
Defective Mismatch Repair in Colorectal Cancer. C. Richard Boland, University of Michigan, Ann Arbor, MI.
Microsatellite Instability in Pancreatic Cancer and Non-Hereditary Colon Cancer. Teri Brentnall, University of Washington, Seattle, WA.

Educational Session 4
Cytochrome P450

Chairperson

COLIN R. JEFCOATE, University of Wisconsin, Madison, WI.

An understanding of the cytochrome P450 subfamily of genes is important to several areas of cancer research including tumor biology, carcinogenesis, pharmacology, and therapeutics. This session will explore the many facets of Cytochrome P450 and its implications for future research. It will be of interest to both basic and clinical scientists in the field.

Program

Overview of Cytochrome P450. Colin R. Jefcoate.

Human Polymorphisms, Drug Metabolism, and Chemotherapy. F. Peter Guengerich, Vanderbilt University School of Medicine, Nashville, TN.

The Role of Cytochrome P450 in Target Tissues as an Activator of Carcinogens. John J. Reiners, Jr., Wayne State University, Detroit, MI.
METHODS WORKSHOPS

86TH AACR ANNUAL MEETING
Saturday, March 18, 1995, 2:00-6:00 p.m.

Two state-of-the-art methods workshops will be offered simultaneously during the upcoming annual meeting. A registration fee of US$35 or C$50 for members and predoctoral students, and US$50 or C$72 for nonmembers will be charged. The intent of these sessions is to provide a detailed description of new research techniques and to illustrate their potential for cancer research. Registrants in each session will receive a syllabus including a selected bibliography of highly relevant articles.

Methods Workshop 1
General, In Situ, and Quantitative PCR

Chairperson
SARASWATI SUKUMAR, Johns Hopkins School of Medicine, Baltimore, MD

The advent of PCR has revolutionized the field of cancer by facilitating genetic analysis of the scantiest resources of fresh as well as archival tissue material. Human tumors are comprised of heterogeneous mixtures of different cell populations, many of which represent past steps in tumor progression. Therefore the identification of mutations in specific cell types and topographic locations can provide information on the timing of events in tumor progression and growth.

Selective ultraviolet radiation fractionation (SURF), using UV to destroy the DNA present in undesirable cells, facilitates the microdissection of fixed tissue specimens. Information is obtained not only on the presence of a mutation, but also the specific types of cells which harbor the mutation. Differential display was developed as a tool for comparative studies at the level of mRNA expression in eukaryotic cells. A comparison of mRNA species from the same tissue origin, such as the normal and tumor cells, allows identification of both up- and down-regulated genes of interest. The genetic suppressor element technology allows the identification of novel genes and their functions as well as the discovery of new functions for known genes through targeted gene inactivation or down modulation. Identification of new suppressor genes, genes associated with drug resistance, genes supporting pathogenic viruses, and apoptotic genes are some applications of this method. Finally, fine structure analysis for altered genes requires a battery of tests based on allele-specific detection of mutations in oncogenes, tumor suppressor genes, and imprinted genes. PCR-based methods that allow the detection of incipient tumors and minimal residual disease will be discussed.

Registrants should have prior knowledge and experience with the PCR technique. Written material will be given to each attendee that provides detailed protocols and troubleshooting advice. The specific techniques to be discussed are particularly useful in pathology and the genetic analysis of tumors.

Program

Direct Analysis of Human Tumor Progression with Selective Ultraviolet Radiation Fractionation: Back to the Future. Darryl Shibata, University of Southern California, Los Angeles, CA.

Genetic Suppressor Elements as a Tool for Gene Identification. Tatyana Holzmayer, Ingenex, Menlo Park, CA.

Analysis of Altered Gene Expression in Cancer by Differential Display. Peng Liang, Dana-Farber Cancer Institute, Boston, MA.

Allele-Specific Detection of Mutated Oncogenes and Tumor Suppressor Genes. Saraswati Sukumar.

Methods Workshop 2
Gene Targeting and Gene Trapping in Mice

Chairpersons
ANDRAS NAGY, Mount Sinai Hospital, Toronto, Canada
JANET ROSSANT, Mount Sinai Hospital, Toronto, Canada

The ability to manipulate the mammalian genome by means of introducing genetic alterations into mouse embryonic stem (ES) cells and hence into mice, has revolutionized the genetic analysis of biological processes including cancer. In this workshop, the technology of targeted mutagenesis as well as the techniques required to manipulate ES cells and make mouse chimeras will be described in detail. Novel approaches to generate site-specific and tissue-specific targeted mutations will be described, as well as methodologies to identify and mutate novel genes using gene trap vectors.

Program

Gene Targeting in Embryonic Stem Cells. Ramiro Ramirez-Solis, Texas A & M University, Houston, TX.
ES Cells, Making Chimeras, and Analyzing Embryos. Richard Behringer, M. D. Anderson Hospital, Houston, TX.
Capturing Genes Important in Mouse Development. William Skarnes, The University of Edinburgh, Edinburgh, Scotland.
REGISTRATION FORM
METHODS WORKSHOPS AND EDUCATIONAL SESSIONS

PLEASE TYPE OR PRINT INFORMATION REQUESTED BELOW
Persons wishing to attend a methods workshop or educational session must be registered for the AACR Annual Meeting and must pay an additional fee of US$35 or C$50 for members and predoctoral students, and US$50 or C$72 for nonmembers.

1. SELECT SESSION: Check the box next to the one methods workshop or educational session you wish to attend. You may attend only one session for which you are registered.

☐ Methods Workshop 1: General, In Situ, and Quantitative PCR. Saraswati Sukumar, Chairperson. (Note: If you check this box, please complete Section 5 below as well.)

☐ Methods Workshop 2: Gene Targeting and Gene Trapping in Mice. Janet Rossand and Andras Nagy, Chairpersons. (Note: If you check this box, please complete Section 5 below as well.)


☐ Educational Session 2: Gene Therapy. Albert B. Deisseroth, Chairperson.

☐ Educational Session 3: Genetic Instability in Cancer. Lawrence A. Loeb, Chairperson.

☐ Educational Session 4: Cytochrome P450. Colin R. Jefcoate, Chairperson.

2. NAME: ____________________________
   Last First M.I.

3. ADDRESS: ____________________________
   Institution ____________________________
   Street, Building, or P.O. Box ____________________________
   City ____________________________ State or Province ____________________________ Postal Code ____________________________
   Country ____________________________ Telephone ____________________________ FAX ____________________________

4. REGISTRATION STATUS (Check 1): ___ I have already registered for the AACR Annual Meeting. ___ My Annual Meeting Registration Form is enclosed.

5. SUPPLEMENTAL QUESTIONS FOR REGISTRANTS FOR METHODS WORKSHOP 1 ONLY:
   A. Do you routinely use the PCR technique? ___ Yes ___ No
   B. Are you a pathologist interested in genetic analysis? ___ Yes ___ No
   C. Do you have prior gene cloning experience? ___ Yes ___ No
   D. Do you intend to use the techniques described in this workshop in the near future? ___ Yes ___ No

6. SUPPLEMENTAL QUESTIONS FOR REGISTRANTS FOR METHODS WORKSHOP 2 ONLY:
   A. Do you have hands-on experience with any of the following:
      i. culturing mouse embryonic stem cells ___ Yes ___ No
      ii. generating mouse chimeras ___ Yes ___ No
      iii. design of targeted mutagenesis vectors ___ Yes ___ No
   B. What is the current status of ES cell/mutagenesis technology in your lab? (Check only 1) ___ ongoing, active, and successful ___ in initial stages of establishment ___ not yet part of my program
   C. What are the areas in which you most need practical information? (Check as many as apply.)
      ___ how to make standard targeted mutations ___ how to culture ES cells
      ___ how to analyze embryonic mutant phenotypes ___ how to make chimeras
      ___ how to develop more specific targeted mutations ___ how to use ES cells to find and mutate novel genes
      ___ other (specify) ____________________________

THE DEADLINE FOR REGISTRATION BY MAIL IS FEBRUARY 17, 1995
If space permits, registrations will be accepted after this date and at the annual meeting.

(This form may be reproduced.)
AMERICAN ASSOCIATION FOR CANCER RESEARCH
86th Annual Meeting

Donald S. Coffey, Program Chairperson
Metro Toronto Convention Centre, Toronto, Ontario, Canada
March 18-22, 1995

Titles of Major Sessions
(Confirmed Chairpersons in Parentheses)

G.H.A. Clowes Memorial Award Lecture
(Bert Vogelstein)

Presidential Address (Edward Bresnick)
American Cancer Society Award Lecture
(Frederick P. Li)

Richard and Hinda Rosenthal Foundation Award Lecture (Ellen S. Vitetta)
Cornelius P. Rhoads Memorial Award Lecture (Eric S. Lander)
Bruce F. Cain Memorial Award Lecture (Kenneth R. Harrap)

PLENARY SESSION
Integrated View of the Cancer Cell
(Edward S. Coffey)

Symposia

Growth Factors, Their Receptors and Differentiation (Angie Rizzino)
Oligonucleotide-mediated Modulation of Mammalian Gene Expression (Kevin J. Scanlon)
Biomarkers of Carcinogenesis (David Sidransky)
DNA Repair Pathways: Recent Surprises (Philip C. Hanawalt)
Mechanistic Basis of Ethnic Differences in Cancer Risk (Kenneth Olden)
Genetic Susceptibility to Cancer (Kenneth W. Kinzler)
Combinatorial Libraries for Cancer Research and Drug Discovery (Sydney E. Salomon)
Telomeres and Telomeras (Carol W. Greider and Jerry W. Shay)
Immunotherapy: Tumor Vaccines (David A. Berd)
Glycosylation Defining Malignancy (Sen-ichirom Nakomori)
New Strategies and Targets for Chemotherapy (Joseph R. Bertino and Eddie Reed)
The Biology of Radiation Oncology (H. Rodney Withers and C. Norman Coleman)
Genes, Development and Cancer (Eric N. Olson)
Dietary Intervention in Hormonal Carcinogenesis (Diane F. Birt and Lovell A. Jones)
Translational Research in Breast Cancer (Marc E. Lippman)
DNA Methylation (Peter A. Jones and Stephen B. Baylin)

Genetic Approaches to Invasion and Metastasis (Robert S. Kerbel and Patricia S. Steeg)
The Role of Stromal-Epithelial Interactions in Growth and Neoplasia (Leland W. K. Chung)
Contribution of Environmental Factors to Cancer (Kenneth Olden)
Cell Transplantation and High Dose Chemotherapy (Peter J. Quesenberry)
Signal Transduction and Gene Control and Development (James E. Darnell)
Natural Products in Chemoprevention of Cancer (Michael B. Sporn)
The Cell Cycle and Tumor Suppressor Genes (Thea D. Tlsty)
Transcription Factors in Development and Neoplasia (Frank J. Rauscher III)
Gene Therapy in Cancer Clinical Trials (Jonathan W. Simons)
GraftversusTumor Effects (Richard J. O'Reilly)
Angiogenic Control of Tumor Growth (Judah Folkman and Adrian L. Harris)
Extracellular Matrix, Gene Expression and Cell Signalling (Hynda K. Kleinman)
Apoptosis (Alan R. Eastman)
Cancer Prevention and Intermediate Biomarkers (Peter Greenwald)

CONTROVERSY SESSIONS
Breast Cancer Prevention: What Will We Advise Women with BRCA1? (Louise C. Strong)
Does the Current Body Burden of Dioxin Pose a Risk to the Health of the North American Population? (Alan Poland)
What Are the Limits and Benefits of Protein Specific Antigen as a Screening Tool? (John Trachtenberg)
Is Mammmography Before Age 50 Beneficial? (Virginia L. Earnest)
Is Bone Marrow Transplantation Indicated for Breast Cancer? (Nancy E. Davidson)
Are Estrogens Implicated in Breast Cancer? (Lovell A. Jones)

MEET-THE-EXPERT SUNRISE SESSIONS
Pediatric Malignancies (Joseph V. Simone)
A Primer on Analyzing Clinical Trials (Steven Piantadosi)
Farnesyl Transferase as a Target for Therapy (Alexander W. Wood)
Multidrug Resistance (Victor Ling)
Is a Mutagenic Event Involved in Initiation? (Ann R. Kennedy)
Everything You Always Wanted to Know About Prostatic Cancer but Were Afraid to Ask (John T. Isaacs)
Colon Cancer (Ronald N. Buick)
The Use of Hematopoietic Cells to Support High-Dose Chemotherapy (Elizabeth J. Shpall)
Multivariate Determinants of Radiocurability (Richard P. Hill)
Glutathione and Associated Enzymes in Anticancer Drug Response (Kenneth D. Tew)
Gene Therapy for Urological Cancers (Jonathan W. Simons)
Chemical and Viral Etiologies of Liver Cancer: Application of Mechanistic Knowledge to Prevention Interventions (John D. Groopman)
Human AH Receptor and Human Responses to Dioxins (Allen B. Okey)
Organ-specific Carcinogenesis (Location, Location, Location) (Cheryl Lyn Walker)
Pharmacokinetic/Pharmacodynamic Relationships in Cancer Chemotherapy (Merrill J. Egorin)
Cellular and Molecular Biology Underlying Relationships Between Major Forms of Human Lung Cancer (Stephen B. Baylin)
Prostate-specific Gene Expression in Transgenic Mice (Norman M. Greenberg)
Tyrosine Kinases and Phosphatases Molecular Determinants of Multidrug Resistance (Elizabeth W. Newcomb)

METHODS WORKSHOPS*
General, In Situ, and Quantitative PCR (Sarawati Sukumar)
Gene Targeting and Gene Trapping in Mice (Janet Rossant and Andras Nagy)

EDUCATIONAL WORKSHOPS*
Molecular Modeling to Medical Monitoring: The Development of New Anticancer Agents (Daniel D. Von Hoff)
Gene Therapy (Albert B. Deisseroth)
Genetic Instability in Cancer (Lawrence A. Loeb)
Cytochrome P450 (Colin R. Jefcoate)

*Additional application and registration fee required