Membrane Transport in Multidrug Resistance, Development, and Disease
(co-sponsored by the National Cancer Institute of Canada)

March 10–14, 1991
Banff Centre, Banff, Alberta, Canada

CONFERENCE COCHAIRPERSONS
SUSAN B. HORWITZ / Bronx, NY VICTOR LING / Toronto, Ontario, Canada

PROGRAM COMMITTEE
GIOVANNA F.-L. AMES / Berkeley, CA CAROL E. CASS / Edmonton, Alberta, Canada
ANNA MARIA CASAZZA / Wallingford, CT PHILIPPE GROS / Montreal, Quebec, Canada
JOHN RIORDAN / Toronto, Ontario, Canada

SCIENTIFIC PROGRAM
The Future of Medical Genetics
VICTOR LING / Toronto, Canada
LOUIS SIMINOVITCH / Toronto, Canada

Phosphorylation and Signal Transduction
I. BERNARD WEINSTEIN / New York, NY
DAVID L. GARBERS / Nashville, TN
RANDALL R. REED / Baltimore, MD

Membrane Pumps and Channels
WILLIAM T. BECK / Memphis, TN
WILLIAM A. CATTERALL / Seattle, WA
HARVEY F. LODISH / Cambridge, MA
REINHART A. F. REITHEMIE / Toronto, Canada

Multidrug Resistance
SUSAN B. HORWITZ / Bronx, NY
IGOR B. RONINSON / Chicago, IL
TAKASHI TSURUO / Tokyo, Japan
MICHAEL M. GOTTESMAN / Bethesda, MD
BRUCE A. CHABNER / Bethesda, MD

P-Glycoprotein Homologs and Development
PHILIPPE GROS / Montreal, Canada

The Cystic Fibrosis Gene and Its Product
RICHARD BOUCHER / Chapel Hill, NC
LAP-CHEE TSUI / Toronto, Canada
MICHAEL J. WELSH / Iowa City, IA
JOHN R. RIORDAN / Toronto, Canada

P-Glycoprotein Homologs and Development
PHILIPPE GROS / Montreal, Canada

Permease Systems in Bacteria and Eukaryotes
ERNEST M. WRIGHT / Los Angeles, CA
GIOVANNA F.-L. AMES / Berkeley, CA
H. RONALD KABACK / Los Angeles, CA

Information and Application Forms
American Association for Cancer Research
Public Ledger Building, Suite 816
Sixth and Chestnut Streets
Philadelphia, PA 19106
215-440-9300 215-440-9313 (FAX)

Application Deadline:
December 3, 1990

Late applications will be accepted on a space-available basis.
Announcement

"Oncogenic Mechanisms in Radiation-Induced Cancer"

A Workshop Cosponsored by the
General Motors Cancer Research Foundation
and the
Radiation Research Society

Dates & Location:
16-19 January 1991
Holiday Inn University Park
Fort Collins, CO 80526

Format & Topics:
Invited lectures & posters;
dominant & recessive oncogene action,
mutation & neoplastic transformation,
repair/misrepair of radiation damage,
biological extrapolation

For registration form (due 11/9/90) and details write to:
Dr. M.M. Elkind, Department of Radiology & Radiation Biology,
Colorado State University, Fort Collins, CO 80523.
Limited support for student travel is available.

Help us to serve you better.....

SUBSCRIPTION QUESTIONS
OR PROBLEMS? *
Call us on our free line, 1-800-638-6423
to get your problem solved. In Maryland
call 1-800-638-4007.
We can help you most efficiently if the
mailing label from your latest issue is in
front of you when you call. If the prob-
lem concerns your payment, please
have your canceled check in front of
you so that we can solve the problem
over the phone. For speedier service,
refer to the six digit number at the end
of the top line of your address label.

Subscription Fulfillment Department
Williams & Wilkins
428 East Preston Street
Baltimore, Maryland 21202

* Members of the American Association for Cancer Research should
direct all subscription inquiries and changes of address to: Member
Services, AACR, Public Ledger Bldg., 6th & Chestnut Sts., Suite 816,
Phila., PA 19106.

Remember, your zip code provides faster, more direct
delivery of your journals. Use it on all correspondence, too.
BENEFITS OF MEMBERSHIP

The American Association for Cancer Research (AACR) is a scientific society consisting of laboratory and clinical cancer researchers. It was founded in 1907 “to bring together active investigators of the cancer problem for presentation and discussion of new or significant observations; and to foster research in cancer and other phenomena of growth.” Members of the AACR enjoy the following benefits:

1. subscriptions to the journals Cancer Research and Cell Growth & Differentiation at the reduced member rate;
2. the privilege of sponsoring an abstract for presentation at the AACR annual meeting;
3. an advance copy of the Program and Proceedings pertaining to each annual meeting;
4. a reduced registration rate at all scientific meetings;
5. early notification of events in the AACR’s series of special conferences;
6. subscriptions to any future AACR journals at reduced rates;
7. reduced rates for the AACR Employment Register;
8. the benefit of AACR’s public education activities;
9. the receipt of AACR newsletters, meeting announcements, and an up-to-date membership directory.

QUALIFICATIONS FOR MEMBERSHIP

Active membership in the AACR is open to investigators who live in the Americas, and who have conducted two years of meritorious research that has resulted in publications relevant to cancer. If a candidate is working in a research area not directly related to the cancer field but has conducted research of exceptional scientific merit, he or she may also qualify for membership.

Corresponding membership is open to qualified persons who are not residents of the Americas. The requirements for corresponding membership are the same as those for active membership. Visiting scientists from outside the Americas who intend to return to their countries of origin soon after submitting their applications should apply for corresponding membership. All other individuals should apply for active membership and transfer to corresponding status at a later date if they should leave the Americas.

PROCEDURES FOR APPLICATION

There are three deadlines for receipt of a membership application: March 1, July 1, and October 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 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
March 1 May
July 1 September
October 1 December

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, 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 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, emeritus, or honorary member of the AACR (at least one copy must be a signed, original letter).—OR—The seconder 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.

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
6th & Chestnut Streets
Philadelphia, PA 19106
215/440-9300

RESPONSIBILITIES OF MEMBERSHIP

Candidates should be aware of the following responsibilities of membership in the AACR. Active members must pay annual dues, a major portion of which is designated for a subscription to at least one of the AACR’s publications. Newly elected members of the AACR who have already purchased subscriptions to Cancer Research or Cell Growth & Differentiation at the higher, nonmember rate will receive reimbursement of the unused portion of those subscriptions once their first year’s membership dues are paid in full.

All corresponding members elected after May 23, 1985, are required to pay an annual assessment in lieu of dues. This assessment, which is equivalent to that portion of the regular dues that pertains to support of activities other than publications, is imposed to defray the cost of sending AACR publications to members outside the Americas. Corresponding members may, if they wish, subscribe to Cancer Research or Cell Growth & Differentiation at the reduced member rate.

Applicants selected in May will be responsible for payment of that year’s dues; applicants elected in September and December will pay dues in the following year. Applicants elected in May and September 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 December.

Margaret Foti
Executive Director
APPLICATION FOR MEMBERSHIP

CATEGORY OF MEMBERSHIP: □ Active □ Corresponding

NAME OF CANDIDATE: ___________________________ DATE OF BIRTH: ________________
PRESENT POSITION/TITLE: ___________________________
INSTITUTIONAL AFFILIATION: ___________________________
INSTITUTIONAL ADDRESS: ___________________________

(City) (State/Province) (Country) (Postal Code)
TELEPHONE NUMBER: ___________________________
FAX NUMBER: ___________________________

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 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.)

________________________________________________________

________________________________________________________

________________________________________________________

CANDIDATE NOMINATED BY: ___________________________ (Please type or print)
CANDIDATE SECONDED BY: ___________________________ (Please type or print)

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.

* Nominators must be active, 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 live in the Americas and who are following a course of study or who are working in a research program relevant to cancer.

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 bring together active investigators of the cancer problem for presentation and discussion of new or significant observations; and to foster research in cancer and other phenomena of growth." Associate members of the AACR enjoy the following benefits:

1. the privilege of sponsoring an abstract for presentation at the AACR annual meeting provided that (a) the associate member is the presenter of the abstract and (b) an active member in good standing of the AACR also signs the abstract in support of the work (in this instance, the active member who co-signs the abstract does not lose his or her own sponsorship privilege);
2. an advance copy of the 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. an optional subscription to the journal Cancer Research at the reduced member rate;
6. subscriptions to any future AACR journals at reduced member rates;
7. early notification of events in the AACR's new series of small scientific meetings on timely scientific topics;
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 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 active member 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 in the amount of $20, which represents one year's dues payment, must accompany the application. 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 $20 dues payment to:

American Association for Cancer Research
Public Ledger Building
Suite 816
6th & Chestnut Streets
Philadelphia, PA 19106
215/440-9300

RESPONSIBILITIES OF MEMBERSHIP

Associate members must pay annual dues in an amount to be determined by the AACR Board of Directors. Dues for 1989 have been set at $20 per year. 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 December 1989 for the forthcoming annual meeting must have paid dues for 1989. Any newly elected associate members of AACR who have already purchased subscriptions to 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 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 on or before January 1 of that year. 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 1989 may retain associate membership until December 31, 1993. The Board of Directors may terminate the membership of any associate member whose dues are in arrears for two years.

Margaret Foti,
Executive Director
**APPLICATION FOR ASSOCIATE MEMBERSHIP**

**NAME OF CANDIDATE:**______________________________ **DATE OF BIRTH:**__________________________

**INSTITUTIONAL AFFILIATION:** _____________________________________________________________

**INSTITUTIONAL ADDRESS:**

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

**TELEPHONE NUMBER:** ____________________________

**FAX NUMBER:** ________________________________

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

- [ ] Graduate Student
- [ ] Medical Student
- [ ] 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 COURSEWORK** (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 for $20 in U.S. funds made payable to AACR, Inc. and drawn on a U.S. bank. Check one of the following boxes only if this form is being submitted between September 1 and December 31:

- [ ] current
- [ ] forthcoming

The enclosed dues payment should be applied to the _____________ calendar year.

**(NOTE: If dues are applied to the forthcoming year, membership will take effect on January 1.) See Guidelines for Application on the reverse side of this form for further instructions.**
AACR SPECIAL CONFERENCE IN CANCER RESEARCH

Developmental Genetics of Childhood Cancer
February 8-11, 1991
Catamaran Resort Hotel, San Diego, California

CONFERENCE CHAIRPERSON
ALFRED G. KNUDSON, JR./Philadelphia, PA

PROGRAM COMMITTEE
GARRETT M. BRODEUR/St. Louis, MO
WEBSTER K. CAVENEE/Montreal, PQ, Canada
STEPHEN H. FRIEND/Charlestown, MA
GEORGE F. VANDE WOUDE/Frederick, MD

TENTATIVE SCIENTIFIC PROGRAM

Keynote Address
ALFRED G. KNUDSON, JR./Philadelphia, PA

Regulation of the Cell Cycle
IRA M. HERSKOWITZ/San Francisco, CA
LELAND H. HARTWELL/Seattle, WA
GEORGE F. VANDE WOUDE/Frederick, MD
JEAN Y. J. WANG/La Jolla, CA

Concepts of Development and Pattern Formation
DOUGLAS MELTON/Cambridge, MA
H. ROBERT HORVITZ/Cambridge, MA
ANTHONY P. MAHOWALD/Chicago, IL
LEWIS WOLPERT/London, England

Developmental Tumors of Mesoderm
WEBSTER K. CAVENEE/Montreal, PQ, Canada
ERIC OLSEN/Houston, TX
DAVID HOUSMAN/Cambridge, MA
STEPHEN H. FRIEND/Charlestown, MA

Tumors of the Nervous System
BERND R. SEIZINGER/Boston, MA
GARRETT M. BRODEUR/St. Louis, MO
MARK A. ISRAEL/San Francisco, CA

Developmental Genetics of Hematopoietic Malignancies
CARLO M. CROCE/Philadelphia, PA
JOHN GROFFEN/Los Angeles, CA
HITOSHI SAKANO/Berkeley, CA

Information and Application Forms
American Association for Cancer Research
Public Ledger Bldg., Suite 816
Sixth and Chestnut Streets
Philadelphia, PA 19106
215-440-9300 215-440-9313 (FAX)

Application Deadline:
November 12, 1990

Late applications will be accepted on a space-available basis.