AUTHOR INDEX

January 15, 1990

Allanunis-Turner, J., 278
Allen, P. B. R., 278
Anderson, M. W., 266
Aronyk, K. N., 278
Arrick, B. A., 299
Azuma, I., 345

Bailey, F. C., 318
Bailly, C., 385
Baumal, R., 288
Beauvillain, J. C., 385
Bellanger, J., 438
Bennett, J. A., 415
Bernier, J. L., 385
Beuzeboc, P., 438
Bigner, D. D., 284
Binder, K. A., 328
Bjorn, M. J., 288
Bonnichon, P., 438
Bourget, L., 432
Brunette, E. N., 375

Cameron, R., 256
Chambon, P., 333
Chang-Liu, C.-M., 339
Chapot, B., 245
Chapus, Y., 438
Christoforou, B., 438
Coffey, R. J., 261
Cohen, J. A., 421
Colvin, O. M., 284
Cremer, G. A., 438
Croce, C. M., 221

Day, R. S., 318
Debs, R. J., 375
DeCosse, J. J., 381
de Jong, S., 304
Derynck, R., 299
Deschner, E. E., 381
De Stefani, E., 426
de Vries, E. G. E., 304
Ding, V. D.-H., 256
Dobler, K. D., 278
Dol, O., 444
Dudouet, B., 438
Düzgünes, N., 375

Eastmond, D. A., 393
Elion, G. B., 284
Endoh, K., 240
Estève, J., 426
Ettenson, D., 288
Evelhoch, J. L., 363
Fraden, Y., 293, 432

Friedman, E., 261
Friedman, H. S., 284
Fu, Y., 227
Fuchs, H. J., 375
Fujikawa, S., 358
Fujimoto, I., 444
Fukuda, S., 345
Fulton, D., 278
Furth, L. T., 273

Gauthier, J., 293
Gazdar, A., 421
Germain, G. S., 318
Goppelt-Struebe, M., 323
Granzow, C., 403
Greene, M. L., 421
Grindey, G. B., 318
Guigon, M., 328
Hamada, J.-i., 358
Hass, R., 323
Hénichart, J. P., 385
Hergl, A., 328
Houghton, J. A., 318
Houghton, P. J., 252, 318
Hsu, P.-L., 350
Hsu, S.-M., 350
Huyser-Wierenga, D., 278

Inada, H., 310
Jacob, L., 438
Jacobson, H. L., 415
Jiang, Y.-Z., 245
Jimenez, J. J., 227
Johnson, S. L., 370
Jones, C. A., 339
Jones, P. S., 339

Karmali, R. A., 381
Kern, J. A., 421
Kikuchi, J., 310
Kimura, T., 345
Kinkade, J. M., Jr., 222
Kiue, A., 310
Kobayashi, H., 358
Köhler, L., 323
Kohno, K., 310
Korc, M., 299
Kumada, M., 240
Kuwano, M., 310

Laerum, O. D., 328
Larcombe McDouall, J. B., 363
Lehnert, T., 381
Lei, M., 288

Lessmann, V., 323
Liang, J. C., 370
Liggett, D. T., 375
Lilley, E. R., 284
Lopez, D. M., 227
Louvard, D., 438
Lu, J., 370

Magdelanet, H., 438
Marks, A., 288
Maronpot, R. R., 266
Masurel, D., 252
Maunoury, M. T., 438
McKean, J. D. S., 278
Meistrich, M. L., 370
Mennear, J. H., 266
Merrill, A. H., Jr., 222
Miyakawa, M., 400
Miyakoshi, J., 278
Mizujelewski, G. J., 415
Montesano, R., 245
Mooradian, D. L., 273
Mukai, H., 240
Müller, N. H., 304
Müller, W., 323
Mullick, A., 333
Munekata, E., 240
Muñoz, N., 426

Nabi, I. R., 409
Nagura, H., 400
Nasoulas, G., 403
Nordberg, J., 421
Nowell, P. C., 421

Ohno, T., 345
Ohue, Y., 240
Okumura, M., 310
Owens, N. E., 222

Paradisin, W. M., 393
Patel, K. V., 235
Patterson, R. M., 266
Patton, J. R., 375
Paukovits, W. R., 328
Petruk, K., 278
Philip, R., 375
Pickett, C. B., 256
Pinon, F., 438
Pointereau-Bellanger, A., 438
Ponstingl, H., 403
Pouillard, P., 438
Purchio, A. F., 273

Raz, A., 409
Rehfeldt, W., 323
Ren, J., 358

Resch, K., 323
Reynolds, S. H., 266
Rifkin, J., 261
Robert, J., 432
Robertson, M. L., 393
Robine, S., 438
Robinson, R., 421
Rosenberg, M. C., 284

Sabbioni, G., 245
Salmon, R. J., 438
Sano, T., 310
Sato, S.-i., 310
Schrey, M. P., 235
Schroy, P., 261
Schulte-Hermann, R., 328
Shellito, J. E., 375
Smith, M. T., 393
Sohue, T., 444
Stevens, V. L., 222
Stöhr, M., 403
Sugimura, K., 345
Sumi, Y., 400
Suzuki, K.-i., 310
Suzuki, T., 444

Takeichi, N., 358
Takuwa, N., 240
Takuwa, Y., 240
Tardif, M., 432
Tateishi, R., 444
Teuchmann, S., 426

Urtasun, R. C., 278
van Beek, M. E. A. B., 370
Vasallo, A., 426
Victoria, C. G., 426

Wada, Y., 345
Wainer, L. W., 252
Wang, Y., 227
Watanabe, H., 409
Watson, G., 227
Weiner, D. B., 421
Weir, B., 278
Wild, C. P., 345
Williams, W. V., 421
Winawer, S., 261
Winton, E. F., 222
Witt, B. C., 318
Woloschak, G. E., 339

Yager, J. W., 393
Yamashita, K., 240
Young, C. L., 252

Zijlstra, J. G., 304

450
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 member 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 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</th>
<th>Notification of Candidate</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1</td>
<td>May</td>
</tr>
<tr>
<td>July 1</td>
<td>September</td>
</tr>
<tr>
<td>October 1</td>
<td>December</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, 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 seconder 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
[Until March 1, 1990] [After March 1, 1990]
330 Market Street Public Ledger Building
Second Floor 6th & Chestnut Streets
Philadelphia, PA 19106 Suite 816
215/440-9300 Philadelphia, PA 19106

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 elected 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: ___________________________ CANDIDATE SECONDED BY: ___________________________

(Please type or print) (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.
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 postdoctoral 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
330 Market Street - Second Floor
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 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 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 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.

(This form may be reproduced.)
**AMERICAN ASSOCIATION FOR CANCER RESEARCH**  
**EIGHTY-FIRST ANNUAL MEETING**  
May 23–26, 1990  
Washington Convention Center  
Washington, D.C.

**ADVANCE REGISTRATION FORM**  
(please print or type)

<table>
<thead>
<tr>
<th>NAME:</th>
<th>Last</th>
<th>First/Middle Initial</th>
<th>First Name for Badge</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS:</td>
<td>Institution</td>
<td>State or Province</td>
<td>Postal Code</td>
</tr>
<tr>
<td>Street, Building, or Post Office Box</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
<td>Telephone</td>
<td></td>
</tr>
</tbody>
</table>

- Check this box if you have a physical disability and special requirements for transportation, hotel accommodations, or other facilities connected 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
- Biostatistics
- Carcinogenesis
- Cellular Biology & Genetics
- Clinical Investigations
- Endocrinology
- Epidemiology
- Immunology
- Molecular Biology
- Preclinical Pharmacology & Experimental Therapeutics
- Virology
- Other (please specify):

**ARE YOU THE PRESENTER OF AN ABSTRACT SUBMITTED FOR THE 1990 AACR MEETING?**  
- Yes  
- No

**ON WHICH DAYS WILL YOU ATTEND THE 1990 AACR ANNUAL MEETING?**  
- Wednesday, May 23  
- Thursday, May 24  
- Friday, May 25  
- Saturday, May 26

**WILL YOU ATTEND THE ASCO MEETING IN WASHINGTON?**  
- Yes  
- No

**ON WHICH DAYS WILL YOU ATTEND THE 1990 ASCO ANNUAL MEETING?**  
- Sunday, May 20  
- Monday, May 21  
- Tuesday, May 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. currency, and all checks must be drawn on a U.S. bank. Payment must accompany this form; purchase orders will not be accepted as payment. Honorary and emeritus members may register gratis.

<table>
<thead>
<tr>
<th>FEES</th>
<th>METHOD OF PAYMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active/Corresponding Member Rate</td>
<td>$65</td>
</tr>
<tr>
<td>Honorary/Emeritus Member Rate</td>
<td>$0</td>
</tr>
<tr>
<td>Nonmember Rate</td>
<td>$125</td>
</tr>
<tr>
<td>(includes a copy of AACR Proceedings)</td>
<td></td>
</tr>
<tr>
<td>Associate Member/Student Rate*</td>
<td>$35</td>
</tr>
<tr>
<td>(does not include a copy of AACR Proceedings)</td>
<td></td>
</tr>
<tr>
<td>AACR Proceedings†</td>
<td>$25</td>
</tr>
<tr>
<td>Overseas Airmail Surcharge‡</td>
<td>$22</td>
</tr>
<tr>
<td>Total Enclosed or Charged</td>
<td></td>
</tr>
</tbody>
</table>

**THE DEADLINE FOR REGISTRATION BY MAIL IS MARCH 30, 1990**

*Students must enclose a statement, signed by the registrar, dean, or department head of their university or college on official letterhead, confirming their status. Special student rates are available only to predoctoral students. 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 advance registration deadline as review of the associate membership application may delay registration.

†AACR members with paid-up subscriptions to Cancer Research receive the Proceedings automatically. Members who check this box and pay the $25 fee 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 air mail — printed matter before the annual meeting.

Mail all advance registration forms with applicable fees to Annual Meeting Registration, American Association for Cancer Research, Inc., 330 Market Street – 2nd Floor, Philadelphia, PA 19106. Receipts will be sent to you in April. AACR members in good standing will receive copies of the Program and Proceedings prior to the meeting. Nonmember and student advance registrants residing in the U.S. and Canada will also receive the Program before the meeting and (if they have purchased it) the Proceedings. Please note that nonmember registrants receive a copy of the Proceedings automatically, but if students are to receive a copy of this document before the meeting, it must be purchased at the time of advance registration.

**REFUND POLICY**

Refunds on registration fees will be granted on written request received in the AACR Office by May 18, 1990. 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 $25 will be deducted from all refunds to cover administrative costs. Proceedings are not returnable, and an additional $25 will be deducted from refunds to nonmembers and students if this document has already been mailed.

(This form may be reproduced)