Instructions for Authors

Scope
Cancer Epidemiology, Biomarkers & Prevention publishes original research on cancer causation and prevention in humans. The following topics are of special interest: descriptive, analytical, biochemical and molecular epidemiology; the use of biomarkers to study the neoplastic and preneoplastic processes in humans; chemoprevention and other types of prevention trials; and the role of behavioral factors in cancer etiology and prevention.

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

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

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

Editorial Policy
When a manuscript is received for consideration, the Editors assume that no similar paper has been or will be submitted for publication elsewhere. Further, it is understood that all authors listed on a manuscript have agreed to its submission. Upon acceptance, authors must transfer copyright to the American Association for Cancer Research, Inc., the publisher and copyright owner of the journal, prior to publication. The Editors endorse the principles embodied in the Declaration of Helsinki and expect that all investigations involving humans will have been performed in accordance with these principles. A copy of the Declaration is available from the American Medical Association, 535 North Dearborn Street, Chicago, IL 60610.

Manuscript Submission
Mail manuscripts directly to Dr. Pelayo Correa, Editor-in-Chief. Submit four original sets (not photocopies) of illustrations along with four copies of the manuscript. Illustrations will be returned to the author if the paper is not accepted for publication. If a manuscript is closely related to papers that are in press or have been submitted elsewhere, please provide copies of those papers with your submission. The publisher welcomes disks to expedite production of accepted manuscripts. If your paper is accepted for publication, you will receive instructions and a form for disk submission. Hard copy of the manuscript must accompany your disk. FAX transmission and overnight delivery service will be used to expedite review and publication.

Format
Manuscripts must be written succinctly in clear, grammatical English. Define abbreviations in an inclusive footnote to the text. Double-space on 8 1/2 x 11-inch paper. Dot-matrix printing is not acceptable. The format is as follows:
1. Title page, including title, authors, and affiliations;
2. A running title of fewer than 50 characters;
3. Text, arranged in this order: Abstract (not more than 250 words), Introduction, Materials and Methods, Results, Discussion, Acknowledgments, References;
4. Footnotes, on a page separate from the text. Designate footnotes consecutively with superscript Arabic numerals;
5. Tables, on pages separate from the text, with descriptive titles and/or legends;
6. Figure legends, on pages separate from the text. Define all symbols and include staining for halftones, where applicable.

References
Include only those articles that have been published or are in press. Unpublished data or personal communications must be cited as footnotes to the text. Personal communications should be substantiated by a letter of permission. Number references in the order of their first mention in the text. Citations should not be limited to references. References must be double-spaced.

Sample references:

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

The complete expense of reproducing color photographs will be charged to the author. Submit color illustrations on flexible backing.

Proofs
Page proofs must be returned to the office of the American Association for Cancer Research within 48 hours of receipt. Return proofs by overnight mail. Proofs not received by the deadline will be published without the authors' corrections. Accepted manuscripts are regarded as final copy and should not be altered substantially in proof, except for correction of printer's errors.

For More Information, Contact:
Dr. Pelayo Correa, Editor-in-Chief, CEBP, Department of Pathology, Louisiana State University Medical Center, 1901 Perdido Street, New Orleans, LA 70112-1393. Telephones: (504)529-2848; (504)568-6035; FAX: (504)529-2849.
Or:
FELLOWSHIP PROGRAMS IN EPIDEMIOLOGY AND BIOSTATISTICS

The Epidemiology and Biostatistics Program at the National Cancer Institute is responsible for intramural and collaborative investigations into the distribution, causes, and natural history of cancer, and the means for its prevention. Comprehensive approaches are employed to study environmental and host determinants of cancer, with emphasis placed on interdisciplinary investigations that integrate epidemiologic and laboratory approaches. Areas of special interest for investigation include occupation, radiation, diet/nutrition, genetics, medications, infectious agents, lifestyle factors, environmental pollution, and statistics.

A variety of training fellowship programs are available to physicians and non-physician scientists for full-time research in epidemiology and biostatistics. In addition, physicians may qualify for training fellowships that have both clinical and epidemiologic/biostatistical components, and which are designed to fulfill subspecialty requirements for Medical Oncology and Pediatric Hematology-Oncology. Fellowship appointments are within the U.S. Public Health Service (PHS) and are usually for a three year period, but may be extended based on performance. Benefits and salaries vary according to the type of appointment. A limited appointment in the PHS Commissioned Corps is available to eligible candidates. Salaries range from $26,000 to $70,000 for physicians and $18,000 to $59,500 for other scientists.

ELIGIBILITY
Fellowships are available to highly qualified applicants with a variety of academic, clinical, and research backgrounds. Applicants should hold a medical degree or doctoral-level degree, or be pursuing such a degree in epidemiology, biostatistics or other relevant area of biomedical research. Fellowships are limited to U.S. citizens or resident aliens eligible for citizenship within four years. Applications are accepted on a continuing basis.

HOW TO APPLY
Please send a curriculum vitae, bibliography, a statement of research interests, and three letters of recommendation to:

Dr. Joseph F. Fraumeni, Jr. or Dr. Michael Alavanja
Epidemiology and Biostatistics Program
Division of Cancer Epidemiology
National Cancer Institute
National Institutes of Health
Executive Plaza North, Room 543
Bethesda, Maryland 20892
(301) 496-1611

FACULTY POSITION
CANCER EPIDEMIOLOGIST

The Department of Public Health Sciences, Bowman Gray School of Medicine is searching for a Cancer Epidemiologist to join the Cancer Control Program at the Comprehensive Cancer Center of Wake Forest University. The cancer control program is in a period of rapid growth and offers multiple opportunities for research including community-based research and collaboration with community physicians in a five-state area, as well as with basic and clinical scientists in the Medical School.

The Department of Public Health Sciences offers unique opportunities for interdisciplinary research, with faculty expertise in cancer control, epidemiology, biostatistics, nutrition, social and behavioral sciences, and health services research. The Cancer Center’s clinical trials program, supported by the National Cancer Institute, conducts trials in leukemia, lymphoma, colorectal, breast, lung, gynecologic and pediatric cancers.

Applicants should hold a Ph.D. degree in a public health field or an M.D. degree with advanced training in epidemiology. The candidate should have demonstrated research expertise in one or more aspects of cancer epidemiology, nutrition, chemoprevention, or control. This is a tenure track position at the assistant or associate professor level.

Interested applicants should send their curriculum vitae and the name of three professional references to Electra D. Paskett, Ph.D., Section on Epidemiology, Department of Public Health Sciences, Bowman Gray School of Medicine of Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157-1063, (919) 716-6946. AA/EOE.

CANCER. IT'S SIMPLY NOT WHAT IT USED TO BE.

Over the last 40 years, research programs supported by the American Cancer Society have made increasing progress in the treatment, detection and prevention of cancer.

In 1966 alone, the Society funded over 700 projects conducted by the most distinguished scientists and research institutions in the country.

Which is why, this year, hundreds of thousands of people will be successfully treated for the disease.

We are winning.

But we need you to help keep it that way.

AMERICAN CANCER SOCIETY
Help us keep winning.
AMERICAN ASSOCIATION FOR CANCER RESEARCH

GUIDELINES FOR APPLICATION FOR ACTIVE AND CORRESPONDING MEMBERSHIP

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*, *Cell Growth & Differentiation*, and *Cancer Epidemiology, Biomarkers & Prevention* 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>in AACR Office</td>
<td>in May</td>
</tr>
<tr>
<td>March 1</td>
<td>May</td>
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<tr>
<td>July 1</td>
<td>September</td>
</tr>
<tr>
<td>October 1</td>
<td>December</td>
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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
Public Ledger Building
620 Chestnut St.
Suite 816
Philadelphia, PA 19106-3483
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, Cell Growth & Differentiation*, or *Cancer Epidemiology, Biomarkers & Prevention* 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, Cell Growth & Differentiation*, or *Cancer Epidemiology, Biomarkers & Prevention* 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: ____________________________

LAST NAME   FIRST NAME   M.I.

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
- Cellular Biology and Genetics
- Clinical Investigations
- Epidemiology
- Immunology
- 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.

* Both nominator and seconder 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 cosigns 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. optional subscriptions to the journals Cancer Research, Cell Growth & Differentiation, and Cancer Epidemiology, Biomarkers & Prevention 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
620 Chestnut St.
Suite 616
Philadelphia, PA 19106-3483
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 1992 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 1991 for the forthcoming annual meeting must have paid dues for 1991. Any newly elected associate members of the AACR who have already purchased subscriptions to Cancer Research, Cell Growth & Differentiation, or Cancer Epidemiology, Biomarkers & Prevention at the higher, nonmember rate will receive a refund for the unused portion of that subscription upon receipt of their payment for a member’s subscription.

Each Fall the AACR will send to current associate members an invoice for dues for the forthcoming year. Payment of this invoice must be accompanied by a statement signed by the associate member’s 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 on or before 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 1991 may retain associate membership until December 31, 1995. The Board of Directors may terminate the membership of an associate member whose dues are in arrears for two years.

Margaret Foti,
Executive Director
APPLICATION FOR ASSOCIATE MEMBERSHIP

NAME OF CANDIDATE: ______________________________ LAST  FIRST  M.I.  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, but the candidate will not be eligible to sponsor an abstract for presentation at the annual meeting in May of that year.) See Guidelines for Application on the reverse side of this form for further instructions.

* Nominator must be active, emeritus, or honorary member of the AACR.

(This form may be reproduced.)
Letter. Kosaku Sakamoto
Letter. A. K. M. Shamsuddin
Reply. Alan R. Kristal

Salt Intake and Stomach Cancer: Some Contrary Evidence
Gary D. Friedman and Julie Parsonnet
Research Articles

A Case-Control Study of the Etiology of Ewing's Sarcoma

Medical History and the Risk of Non-Hodgkin's Lymphomas
Carlo La Vecchia, Eva Negri, and Silvia Franceschi

Prostate-specific Antigen Levels and Subsequent Prostate Cancer: Potential for Screening
Kathy J. Helzlsouer, John Newby, and George W. Comstock

Racial Differences in Prostate-specific Antigen Levels in Patients with Local-Regional Prostate Cancer
Srivasan Jayakumar, Theodore Karrison, Ralph R. Weiselbaum, Sameer Chan, Sveed Farhat Quadri, and Azhar M. Awan

Association of Serum Ferritin Levels with the Risk of Stomach Cancer
Abraham Nomura, Po Huang Chyou, and Grant S. Stemmermann

Immunohistochemical Evidence of p53 Overexpression in Gastric Epithelial Dysplasia
Massimo Rugge, Yih Hong Shao, Pelavo Correa, Raffaele Butt, and Francesco DiMarino

Effects of Breast Cancer Treatments on Plasma Nutrient Levels: Implications for Epidemiological Studies
Nancy Potischman, Tim Byles, Leah Houghton, Martin Root, Lakuma Nenoto, and T. Colin Campbell

Cell Proliferation in Rat Colon Measured with Bromodeoxyuridine, Proliferating Cell Nuclear Antigen, and [3H]Thymidine
Frank Richter, Astrid Richter, Kan Yang, and Martin Lipkin

Urinary 6β-Hydroxycortisol/Cortisol Ratios Measured by High-Performance Liquid Chromatography for Use as a Biomarker for the Human Cytochrome P-450 3A4
Els Joellenbeck, Zheng Qian, Audrey Zarba, and John D. Groopman

A Prospective Study of hprt Mutant and Mutation Frequencies in Treated Cancer Patients
Michele Caggana, Howard F. Tiber, C. Norman Coleman, Peter March, John K. Clark, and Karl L. Kelsey

Impact of a Physician Intervention Program to Increase Breast Cancer Screening
Mary L. Costanza, Jane G. Zupka, D. Robert Harris, David Hosmer, Robin BARTH, Victoria P. Gaw, Harry L. Greene, and Anne M. Stoddard

Breast Self-Examination Proficiency and Training Effects: Women at Increased Risk of Breast Cancer
Michael E. Stegman, Patti Wilcox, and Anne Marie Huchskap

Review

Apoptosis in the Genesis and Prevention of Cancer
Henry J. Thompson, Robert Strang, and Pepper L. Schein

Continued on Inside Back Cover