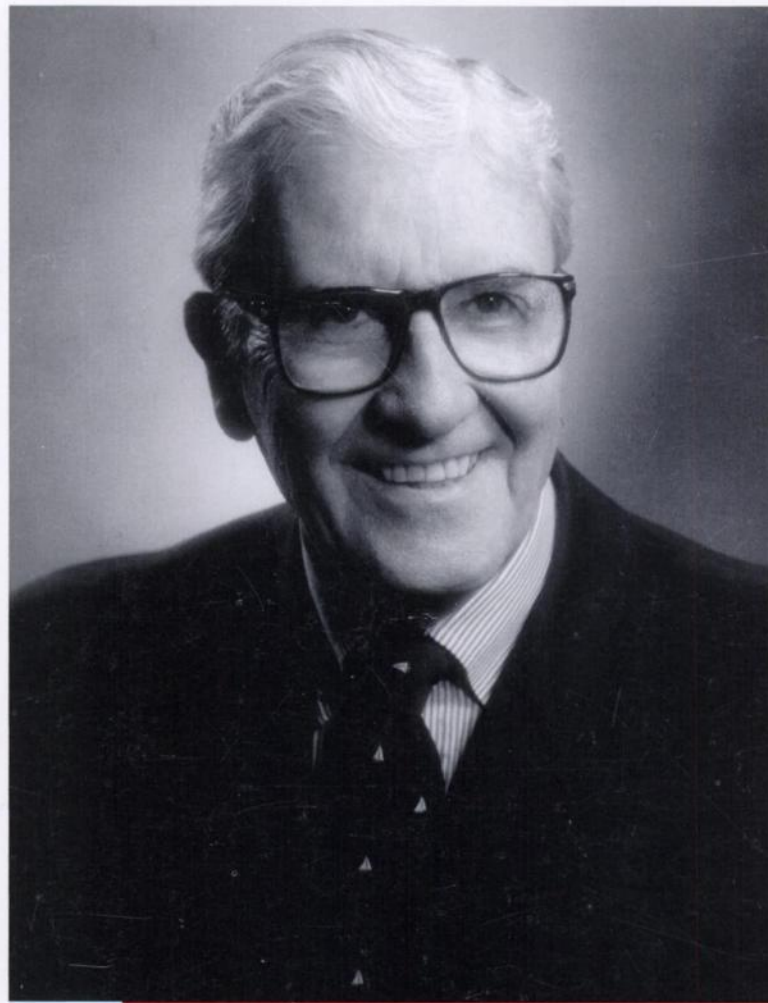




# Cancer Research

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH



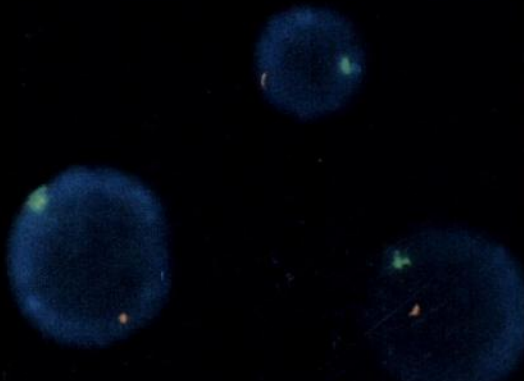
April 1, 1994  
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*Sex mismatch research of bone marrow transplants.  
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# 85th Annual Meeting of the AMERICAN ASSOCIATION FOR CANCER RESEARCH

April 10-13, 1994 San Francisco, CA

An Outstanding Scientific Program That Integrates the Most Recent Findings in Basic and Clinical Cancer Research

## SCIENTIFIC SESSIONS

**Sat. Afternoon  
April 9**  
**Methods Workshop: Confocal Microscopy and Quantitative Image Analysis.** James P. Slattery, Stephen J. Lockett, Curtis T. Thompson, D.R. Sandison  
**Methods Workshop: Quantitative Genotyping and Phenotyping Using Flow Cytometry and Fluorescence in Situ Hybridization.** Fredrika M. Robertson, Joe W. Gray, Steven Sherwood, Dan Pinkel  
**Plenary Session: The Biological and Clinical Roles of Genetic Markers** - Karen S. H. Antman, Leland H. Hartwell, Thea D. Tlsty, Eric J. Stanbridge, Ilan R. Kirsch, Stephen H. Friend  
**G. H. A. Clowes Memorial Award Lecture** - Mary-Claire King  
**Symposium: Recent Advances in Environmental Carcinogenesis** - Kenneth Olden, Paul Kleihues, J. Carl Barrett, Frederica Perera, Curtis C. Harris  
**Symposium: Cellular Signaling** - Joseph Schlessinger, Arthur Weiss, Axel Ullrich, Tony Hunter  
**Symposium: AIDS-related Malignancies** - Alexandra M. Levine, Samuel Broder, Barbara Ensoft, Susan E. Krown, Gianluca Guidano  
**Symposium: Solid Tumor Physiology and Therapeutic Approaches** - Beverly A. Teicher, Peter W. Vaupel, Rakesh K. Jain, Chang W. Song, Robert Auerbach  
**Symposium: Conducting Cancer Research among Minority Populations in the United States** - Jose Russo, G. Marie Swanson, Alicia E. Alvarez, Lucille Adams-Campbell, Mary B. Daly, Manuel R. Modiano, Electra D. Paskett, Edward E. Partridge  
**Presidential Address** - Margaret L. Kripke  
**Symposium: Survival and Success in Cancer Research: Toward the Year 2000** - Sandra L. White, John Alderete, Neil J. Clendeninn, Michele K. Evans, Clifton A. Podyry, Eugene Cota-Robles, Nicholas J. Kenney, Carol Wood Moore, Ricardo J. Parker  
**Symposium: Hematological Malignancies: Biology and Therapy** - Riccardo Dalla-Favera, A. Thomas Look, Michael Cleary, Pier-Giuseppe Pelicci, James Ihle  
**Symposium: New Approaches to Cancer Immunotherapy** - Olivera J. Finn, Graeme J. Dougherty, David A. Berd, Pramod K. Srivastava, Philip E. Thorpe, Robert Chesnut  
**Symposium: Retinoids and Cancer** - Lorraine J. Gudax, Keiko Ozato, Joseph F. Grippo, David R. Parkinson, Christine Chomienne  
**Symposium: Transcriptional Control of Cell Proliferation and Differentiation** - Robert N. Eisenman, Inder M. Verma, Michael Levine, Helen Blau  
**Controversy Session: Fat and Breast Cancer: Can an Intervention Trial Resolve the Issue?** - Laurence N. Kolonel, Ross C. Prentice, Walter C. Willett  
**American Cancer Society Award Lecture** - Brian E. Henderson  
**Symposium: Programmed Cell Death** - Stanley J. Korsmeyer, Eileen White, Junying Yuan, Laurie Owen-Schaub, Tyler Jacks  
**Symposium: New Strategies for Immunological Intervention** - Hans Schreiber, You Hui Zhang, Michael P. Bevilacqua, Giorgio Trinchieri, Joseph Ilan, Lee M. Nadler  
**Symposium: Diet and Cancer: The Role of Protective Factors** - Walter C. Willett, John D. Potter, Geoffrey Howe, Michael B. Sporn, William J. Blot  
**Symposium: Basic and Clinical Aspects of Prostate Cancer** - Donald S. Coffey, Norman Greenberg, J. S. Rhim, Robert E. Bookstein, Jonathan W. Simons, William G. Nelson, Kenneth J. Pienta  
**Controversy Session: Is Multidrug Resistance an Important Factor in Therapeutic Outcome?** - William T. Beck, William S. Dalton, Peter J. Houghton, Branimir I. Sikic, S. B. Kaye, Helen S. L. Chan, Igor B. Roninson  
**Business Meeting**  
**Symposium: Basic Science Approaches to Breast Cancer** - Mina J. Bissell, Adrian L. Harris, Suzanne A. W. Fuqua, Helene S. Smith, Ray L. White  
**Symposium: Genetic Basis for Tumor Cell Sensitivity to Radiation** - John B. Little, Albert J. Fornace, Jr., Barbara A. Osborne, Eitel Moustacchi, Michael Christman  
**Symposium: Intermediate Endpoints in Cancer Prevention** - Gary J. Kelloff, Charles W. Boone, Michael Wargovich, Reuben Lotan, David Sidransky  
**Symposium: Pharmacogenetics: Role of Drug Metabolism Polymorphisms in Cancer Chemotherapy** - Frank J. Gonzalez, William E. Evans, Richard Weinshilboum, Robert B. Diasio, Mark J. Ratain  
**Controversy Session: Is Bone Marrow Transplantation Indicated for Adult Acute Leukemia in First Remission?** - Clara D. Bloomfield, Thomas Buchner, Stephen J. Forman  
**Richard and Hinda Rosenthal Foundation Award Lecture** - Marc E. Lippman  
**Symposium: Potential Applications of Advances in Cell and Molecular Biology to New Therapies for Lung Cancer** - John D. Minna, Gail L. Shaw, Adi F. Gazdar, Paul A. Bunn, Jr., David P. Carbone, Jack A. Roth

**Symposium: Genomic Imprinting and Its Role in Cancer** - Andrew P. Feinberg, Uta Francke, Carmen Sapienza, M. Azim Surani, Benjamin Tycko  
**Symposium: Novel Strategies in Chemical Prevention of Cancer** - Paul Talalay, Herrman Adlercreutz, Brian Ketterer, Stephen S. Hecht, Thomas W. Kensler  
**Symposium: Mechanisms and Circumvention of Drug Resistance** - Barton A. Kamen, Mark Meuth, Grant R. Wilkinson, Stanton L. Gerson, Roger G. Deeley  
**C. P. Rhoads Memorial Award Lecture** - Igor B. Roninson  
**Symposium: Tumor Suppressor Genes and Cell Cycle Control** - Michael B. Kastan, David Beach, Ira Herskowitz, James M. Roberts, Jean Y.J. Wang  
**Symposium: Hormonal Carcinogenesis: Epidemiological and Mechanistic Studies** - Barbara S. Hulka, Joachim G. Liehr, Herrman Adlercreutz, George M. Stancel, Kathryn B. Horwitz, Pentti K. Sileri  
**Symposium: Topoisomerase I Inhibitors: Molecules to Medicine** - Randall K. Johnson, Mary-Ann Bjornsti, Sidney M. Hecht, Hirofumi Nakano, Robert P. Hertzberg, Eric K. Rowinsky  
**Bruce M. Cain Award Lecture** - Mansukh C. Wani and Monroe E. Wall  
**Symposium: Integration of Cytokines and Radiation: Biological Basis and Preliminary Clinical Trials** - Zvi Fuks, Ralph R. Weichselbaum, Joost J. Oppenheim, Timothy J. Kinsella, Randy L. Jirtle  
**Symposium: Cell Adhesion in Invasion and Metastasis** - David A. Cheresh, Kenneth Yamada, Richard Assoian, Zena Werb, Ajit Varki  
 Minisymposia, poster discussion sessions, and regular poster sessions will be organized from over 3,800 submitted papers in all areas of cancer research.

## SESSIONS OF PROFFERED PAPERS

### FEES

GENERAL INFORMATION		
Member Registration		\$125*
Nonmember Registration (includes Proceedings)		\$245*
Predoctoral Student and Associate Member Registration		\$60*
Proceedings of the AACR		\$35

\*Discounts applied for registrations received before February 18, 1994.

### Employment Register:

<b>Candidates:</b>		
AACR Members		\$10
Nonmembers		\$25
<b>Employers:</b>		
AACR Members		\$75
Nonmembers		\$125
Commercial Firms		\$275*

\*\$225 for firms in AACR Exhibit Show

## PUBLICATIONS

The *Proceedings of the American Association for Cancer Research* contains abstracts of all papers accepted for presentation by the Program Committee and extended abstracts of symposium presentations and special lectures. The *Proceedings* is received by all members with paid-up subscriptions to AACR journals, or it may be purchased at the time of registration for \$35.

The *Program of the Annual Meeting of the American Association for Cancer Research* is included in the registration fee.

Detailed listings of available positions and prospective candidates will be available for consultation during the Annual Meeting and will be published in the *Proceedings* and in three issues of the Association's journal *Cancer Research*. Interviews will be scheduled in San Francisco.

## EMPLOYMENT REGISTER

Displays by over 100 firms offering the most up-to-date products, services, and publications for both basic and clinical cancer researchers.

## EXHIBIT SHOW

**Upjohn, Ciba-Geigy, and Bristol-Myers Oncology Awards**  
 For presenters of meritorious abstracts as selected by the Program Committee. No formal application necessary. Predoctoral students, postdoctoral fellows, and physicians in training are eligible.

## TRAVEL AWARDS FOR YOUNG INVESTIGATORS

**Comprehensive Minority Biomedical Program of the National Cancer Institute**  
 For predoctoral students, postdoctoral fellows, or physicians in training in the U.S. and Canada from minority groups that have been traditionally underrepresented in cancer research.

## WICR SESSIONS

**Women in Cancer Research** will organize several sessions during the meeting that will be of interest to all registrants.

## DEADLINES

Advance Registration (includes advance mailing of Program and Proceedings)	February 18, 1994
Hotel Reservations	March 7, 1994

## AIR TRAVEL

Special fares available on Delta Air Lines and United Airlines through Uniglobe Travel, 800-243-4370 (from U.S. and Canada only) or 215-628-3322 (FAX).

## CAR RENTAL

Hertz Rent a Car 800-654-2240 Account Number 3353

## INFORMATION AND FORMS

American Association for Cancer Research  
 Public Ledger Building  
 620 Chestnut Street, Suite 816  
 Philadelphia, PA 19106-3483  
 215-440-9300  
 FAX: 215-440-9313

Tues. Afternoon  
April 12

# The American Association for Cancer Research Presents

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## Molecular Biology in Clinical Oncology: A Workshop

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An intensive, one-week summer workshop on molecular biology designed for clinical oncologists in training or in their early academic careers.

July 1-7, 1994  
The Given Institute  
Aspen, Colorado

### ORGANIZERS

STEPHEN H. FRIEND  
Massachusetts General Hospital  
Charlestown, MA

L. MICHAEL GLODÉ  
University of Colorado School  
of Medicine  
Denver, CO

- Lectures by leading experts on molecular biology concepts and the latest developments in molecular oncology such as gene therapy, oncogenes and growth factors, tumor suppressor genes, fusion proteins, genetic mutations, antisense, metastasis, and drug resistance.
- Small group laboratory sessions to demonstrate the important experimental techniques utilized in molecular biology.
- A workshop syllabus containing relevant published papers, references to key articles in the literature, and details on important laboratory procedures.
- Financial support for participants who are physicians in training or oncology fellows.
- Category I CME credits through the University of Colorado School of Medicine.

### Faculty

#### Lectures

STEPHEN H. FRIEND/ Charlestown, MA  
MICHAEL B. KASTAN/ Baltimore, MD  
ANDRÉ BERNARDS/ Charlestown, MA  
HAROLD L. MOSES/ Nashville, TN  
TYLER JACKS/ Cambridge, MA  
ROBERT EISENMAN/ Seattle, WA

A. THOMAS LOOK/ Memphis, TN  
MASAAKI TERADA/ Tokyo, Japan  
ALLEN I. OLIFF/ West Point, PA  
NADIA ROSENTHAL/ Charlestown, MA  
ERIC R. FEARON/ Baltimore, MD  
L. MICHAEL GLODÉ/ Denver, CO

PATRICIA S. STEEG/ Bethesda, MD  
MARC E. LIPPMAN/ Washington, DC  
JOHN R. MURPHY/ Boston, MA  
JACQUELINE LEES/ Charlestown, MA

Additional Speakers to be Announced

#### Laboratory Rotations

MARK S. BOGUSKI/ Bethesda, MD. "Computer Searching in Molecular Biology."  
GAIL HARRISON and L. MICHAEL GLODÉ/ Denver, CO. "Polymerase Chain Reaction Technology."  
JAMES P. HOEFFLER/ Denver, CO. "Transfer of Nucleic Acids and Proteins."  
CORI M. GORMAN/ San Carlos, CA. "Gene Expression Systems."  
LEILE GARCIA/ Denver, CO. "Practical Cytogenetics."

**Application Deadline April 5, 1994**



For further information, contact

American Association for Cancer Research  
Public Ledger Building  
620 Chestnut Street, Suite 816  
Philadelphia, PA 19106-3483  
Telephone: (215) 440-9300 • FAX: (215) 440-9313

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# COVER LEGEND

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## Cancer Research



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This cover features Thomas J. King, Treasurer of the American Association for Cancer Research since 1988. Dr. King joined Robert Briggs in 1950 as a Research Fellow at the Institute for Cancer Research in Philadelphia. In 1952, he and Briggs reported the first successful nuclear transplantation of a multicellular organism using the leopard frog, *Rana pipiens* (Proc. Natl. Acad. Sci. USA, 38: 455-463, 1952). When blastula nuclei were transplanted into previously prepared activated and enucleated eggs, about one-third of the recipient eggs exhibited normal cleavage and blastula formation. These results proved that late blastula nuclei are undifferentiated and are equivalent to the zygote nucleus at the beginning of development. Later tests showed that, as development proceeds, most somatic cell nuclei exhibit an ever decreasing ability to promote the normal development of test eggs.

The stability of the changes that occur in nuclei of late gastrula endoderm was investigated by serial transplantation (T. J. King and R. Briggs, Cold Spring Harbor Symp. Quant. Biol., 21: 271-290, 1956). In these cases, a given group of nuclear transplant embryos represented a clone, all members of which were nucleated by descendants of one original endoderm nucleus. These experiments showed that nuclear changes in differentiating endoderm cells are highly stabilized and heritable.

In 1961, Dr. King and Dr. Robert G. McKinnell initiated the first tests of nuclei of adult cells by transplanting nuclei of the frog renal adenocarcinoma, leading to the development of a number of abnormal larvae which failed to feed and soon died. The most advanced development promoted by nuclei from adult cells was the production in 1983, by Drs. Marie A. DiBerardino and Nancy Hoffner, of swimming tadpoles from erythrocyte nuclei of *Rana* transplanted and incubated in the cytoplasm of maturing oocytes. In modified form, the nuclear transplantation procedure has been extended by others to several species of amphibia, *Drosophila*, fish, and the mouse.

In 1972, Drs. King and Briggs were corecipients of the prestigious Charles-Leopold Mayer Prize, Academie de Science, Institut de France, for their pioneering work.

Born June 4, 1921, in New York City, Dr. King received the B.S. degree from Fordham College. He earned the M.S. and Ph.D. degrees in cell physiology from New York University. In 1967, he left the Institute for Cancer Research to become a Professor of Biology at Georgetown University.

He joined the National Cancer Institute in 1972 and was named Director, Division of Cancer Research, Resources and Centers in 1974. In 1980, he returned to Georgetown as the Director of the Kennedy Institute of Ethics and Professor of Obstetrics and Gynecology. He retired from Georgetown on July 1, 1990, as Deputy Director Emeritus of the Vincent T. Lombardi Cancer Research Center.

Dr. King has had a long association with the American Association for Cancer Research. He was elected an active member in 1957 and served on the Board of Directors from 1978 to 1981. In 1985, he was appointed to a three-year term on the Finance Committee. The membership of the Association elected him Treasurer in 1988. Having served 6 years in the latter post, he will relinquish that office at the Association's 85th annual meeting in April 1994.

Under Dr. King's able leadership as Treasurer, the Association has enjoyed excellent financial stability. The Board of Directors, members of the Association staff, and all of the members of the AACR wish to express their many thanks to him for his unstinting devotion to the welfare of the Association and for his constantly thorough and skillful overseeing of the Association's financial matters.

Sidney Weinhouse