82nd Annual Meeting of the
AMERICAN ASSOCIATION FOR CANCER RESEARCH

Featuring the most up-to-date research findings in the cancer field. The AACR's Annual Meeting is the scientific meeting you must attend to learn about the latest developments in both laboratory and clinical cancer research.

MAJOR SCIENTIFIC EVENTS

Special Session

Discoveries and Opportunities in Cancer Research - A Celebration of the 50th Anniversary of Cancer Research - Bernard Weinstein, Carlo M. Croce, Curtis C. Harris, Lance A. Liotta, Jonathan W. Uhr, Peter M. Howley, Karen S. H. Antman, Steven A. Rosenberg, Eli Glasstein

Plenary Sessions

Molecular Mechanisms of Tumor Suppressor Genes and Oncogenes - Lewis T. Williams, Daniel Dimaio, Edward Harlow, Daniel A. Haber

Protooncogenes and Tumor Suppressor Genes: Development and Cancer - George F. Vande Woude, Andrew McMahon, Luis Parada, Raymond L. White

Molecular Pathogenesis of Lung Cancer - John D. Minna, R. Ilona Linneola, Curtis C. Harris, Hildegard M. Schuller

Genetic Changes in Cancer: Implications for Diagnosis and Treatment in the 1990's (sponsored jointly with the American Society of Clinical Oncology) - Janet D. Rowley, Ruth Sager, Michelle M. Le Beau, Razelle Kurzrock

Symposia

Negative Growth Regulators - Harold L. Moses, Anita B. Roberts, Francis W. Ruscetti, Edward B. Leif, Rick Derynk

Multiple Primary Cancers: Epidemiology and Molecular Mechanisms - Louise C. Strong, Margaret A. Tucker, Stephen H. Friend, David W. Yandell, Takashi Sugimura

Molecular Biology of DNA Damage and Repair - Larry H. Thompson, Wilhelm A. Boht, Louise Frazer, Jan H. J. Hoepfner, Deborah E. Barnes

Cell Cycle Control in Eukaryotes Large and Small - Fred R. Cross, James M. Roberts, Ted Weinert, William Dunphy

Hormones and Cancer - Marc E. Lippman, Gerald R. Cunha, Max S. Wicha, Henri Rochefort, Malcolm G. Parker

Ethnic Differences in Cancer Etiology - Pelayo Corea, Raymond S. Greenberg, Brian E. Henderson, William J. Blot, Thomas B. Becker, Lawrence N. Kolonel, Allen Herman


Recombinant DNA Approaches to Drug Development - Ira Pastan, Michael Blasee, Sherie L. Morrison, Dennis R. Burton

The Nuclear Matrix and the Malignant Cell - Sheldon Penman, Jeffrey Nickerson, Ronald Berezney, Donald S. Coffey, Roel van Driel

Molecular Epidemiology - Gerald N. Wogan, Paolo Vineis, John D. Groups, William P. Bennett, Thomas R. Skopek

Current Status of the Human Genome Project - Mortimer L. Mendelson, Charles R. Cantor, David W. Anthony V. Carrano, Lloyd M. Smith

Clonal Evolution in Cancer - Peter C. Nowell, Isaiah J. Fiddler, Webster K. Cavenee, Thea D. Tlsty

Drug Delivery Systems - Robert Langer, Henry Brem, Gabriel Lopez Berstein, Ellen S. Vitta, Michael W. Fanger

Tumor Vaccines and Active Immunotherapy - Ronald B. Herberman, Thierry Boon, Olivia J. Finn, Suyu Shu, Philip O. Livingston, Donald L. Morton

Special Lectures

Presidential Address - I. Bernard Weinstein
Columbia University, New York, NY

Cleaves Award Lecture - Michael H. Wigler
Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

Rosenthal Award Lecture - Owen W. Witte
UCLA School of Medicine, Los Angeles, CA

Cain Award Lecture - Michael B. Sporn
National Cancer Institute, Bethesda, MD

Rhoads Award Lecture - Richard C. Mulligan
Whitehead Institute for Biomedical Research, Cambridge, MA

Sessions of Preferred Papers

Minisymposia, poster discussion sessions, and regular poster sessions will be organized from over 2,600 submitted papers in all areas of cancer research.

Meet the Expert Sunrise Sessions

Do Human Tumors Arise from Normal Cellular Processes? - Lawrence A. Loeb

Tumor Promotion: A Trivial Process with a Sophisticated Molecular Basis - Stuart H. Yuspa

Tumor Immunology: Is There a Future? - Margaret L. Kripke

Minority Issues Committee Symposium

Careers and Opportunities in Cancer Research: Research and Survival in the 1990's - Lovell A. Jones, Cecil B. Pickett, Kenneth Olden, Lydia Villa-Komaroff

Women in Cancer Research Mentoring Session

Surviving as a Cancer Researcher in the 1990's: Creative Solutions - Helene S. Smith, Andrew M. Mastro, Anna Maria Casazza, Mary Woolley, Linda Cadigan, Nita Cintor, Collette Freeman

Pre-Meeting Workshops

Tuesday, May 14
Separate registration fee required; advance registration recommended.

Antisense, Oligonucleotides, and Polymerase Chain Reaction - Michael I. Sherman, Additional Speakers to be Announced

Genetically Engineered Antibodies for Cancer Immunotherapy - Ralph A. Reifeld, Stephen D. Gillies, George E. Mark III, Mark Whitlow, Dennis R. Burton

FEES

Member Registration $90*
Nonmember Registration
(includes Proceedings) $155*
Predoctoral Student and Associate Member Registration $40**
Workshop Registration $50
Proceedings of the AACR $25

*$15 discount for advance registration received by March 22, 1991.
**$5 discount for advance registration received by March 22, 1991.

PUBLICATIONS

The Proceedings of the American Association for Cancer Research contains all abstracts deemed acceptable by the Program Committee and extended abstracts of symposium and plenary session presentations and special lectures. The Proceedings is received by all subscribers to the journals Cancer Research and Cell Growth & Differentiation, or it may be purchased at the time of registration for $25. The Program of the Annual Meeting of the American Association for Cancer Research is included in the registration fee.

EMPLOYMENT REGISTER

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 two issues of the Association's journal Cancer Research. Interviews will be scheduled in Houston.

TRAVEL AWARDS FOR YOUNG INVESTIGATORS

Upjohn Awards

For presenters of meritorious abstracts selected by the Program Committee. No formal application necessary. Predoctoral students, postdoctoral fellows, and physicians in training are eligible. Upjohn Company sponsors awards to investigators in North America; Upjohn International, Inc., to investigators in other countries.

Comprehensive Minority Biomedical Program of the National Cancer Institute

For predoctoral students, postdoctoral fellows, or physicians in training in the United States and Canada from minority groups that have been traditionally underrepresented in cancer research.

DEADLINES

Advance Registration (includes advance mailing of Program and Proceedings) March 22, 1991

Hotel Reservations April 22, 1991

AIR TRAVEL

United Airlines 800-521-4041 Refer to File Number 445MY

Delta Air Lines 800-241-6760 Refer to File Number R187

CAR RENTAL

Budget Rent a Car 800-772-3773 800-266-8900 (from Canada)

INFORMATION AND FORMS

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Following the discovery of the powerful carcinogenicity of nitrosamines in animal models by Magee and Barnes (Cancer Research Cover, June 1970) and Druckrey (Cancer Research Cover, September 1973), questions were raised as to their role in human cancer causation. This likelihood was fostered by Sander (Cancer Research Cover, September 15, 1989), who discovered that nitrosamines can be formed in foods; by Hoffmann and Hecht (Cancer Research Cover, March 1, 1988), who found specific nitrosamines in tobacco, produced from nitrite, stemming from the reduction of ubiquitous nitrate; and by Correa and Tannenbaum (Lancet, 2: 58–62, 1975; 1: 629–632, 1983), who found nitroso compound formation in vivo.

Ohshima and Bartsch, featured on this cover, developed a simple, sensitive, and noninvasive method for the estimation of endogenous nitrosation in humans, the so-called N-nitrosoproline (NPRO) test (Cancer Res., 41: 3658–3662, 1981). It measures the excretion of NPRO and other nitrosated amino acids in the urine as an index of endogenous nitrosation, following ingestion of precursors. This test has, for the first time, provided a reliable technique to investigate in humans the kinetics of endogenous nitrosation and the effects of dietary modifiers.

Use of the NPRO test on subjects at high risk for cancers of the esophagus (Cancer Res., 46: 1485–1491, 1986; Mutat. Res., 238: 255–267, 1990), oral cavity, stomach, and urinary bladder has revealed, in most instances, higher exposures to endogenously formed nitroso derivatives. Individual exposure was greatly affected by dietary modifiers or disease state. The NPRO test showed that moderate doses of vitamin C efficiently lowered the body burden of nitroso compounds produced intragastrically. These results disclose an etiological role of nitrite-generated compounds in human cancers and explain epidemiological studies that show protective effects of fruits and vegetables, sources of vitamins C and E, and other nitrosation inhibitors against neoplasms, especially in the upper gastrointestinal tract.

Left: Helmut Bartsch received his Ph.D. in 1968 from the University of Heidelberg, West Germany. He was a postdoctoral fellow with E. C. and J. A. Miller at the McArdle Laboratory for Cancer Research at the University of Wisconsin. Since 1980, he has been Chief of the Unit of Environmental Carcinogens and Host Factors at the International Agency for Research on Cancer, which he joined in 1973. He is also an external faculty member of the Medical School in Hanover, West Germany. In the mid-1970s, he and his group started to integrate laboratory methods through a network of collaborators with the aim of identifying individuals at high risk for certain cancers, due to either elevated exposure to carcinogens or predisposing metabolic host factors. He has organized a series of international scientific meetings on these topics, including conferences on the role of nitroso compounds in human cancer. Right: Hiroshi Ohshima is a graduate of the Tokyo University of Fisheries and received his Ph.D. from the University of Tokyo. From 1975 to 1979 he worked in the Department of Biomedical Research on Foods at the National Institute of Health in Tokyo. In 1979, he joined the International Agency for Research on Cancer, Lyon, France, as a scientist in the Unit of Environmental Carcinogens and Host Factors (ECH).

John H. Weisburger