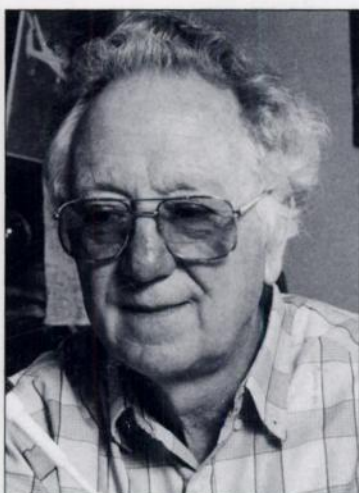




Cancer Research

AN OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH



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**AMERICAN ASSOCIATION FOR CANCER RESEARCH
86th Annual Meeting**



Donald S. Coffey, Program Chairperson

Metro Toronto Convention Centre, Toronto, Ontario, Canada

March 18-22, 1995

Titles of Major Sessions

(Confirmed Chairpersons in Parentheses)

PLENARY SESSION

An Integrated View of the Cancer Cell (Donald S. Coffey)

SYMPOSIA

The Cell Cycle and Tumor Suppressor Genes (Thea D. Tlsty)

DNA Damage and Repair (Philip C. Hanawalt)

Natural Products in Chemoprevention (Michael B. Sporn)

Ribozymes and Antisense Oligonucleotides and the

Alteration of Gene Expression (Kevin J. Scanlon)

Genetic Susceptibility to Cancer (Kenneth W. Kinzler)

Environmental Carcinogens and Their Impact (Kenneth Olden)

Cell Surface Glycosylation Defining Malignancy (Sen-itiroh Hakomori)

Peripheral Stem Cells and High-Dose Chemotherapy

Apoptosis (Alan R. Eastman)

Biology of Radiation Oncology (H. Rodney Withers and additional chairperson to be announced)

Biomarkers of Carcinogenesis (David Sidransky)

Transcription Factors and Carcinogenesis (Frank J. Rauscher)

Gene Therapy in Cancer Clinical Trials

Telomeres and Telomerases (Carol W. Greider and Jerry W. Shay)

Extracellular Matrix, Gene Expression, and Cell Signalling (Hynda K. Kleinman)

Mechanistic Basis for Ethnic Differences in Cancer Risk Signal Transduction and Gene Control and Development

(James E. Darnell)

Angiogenesis (Judah Folkman and Adrian L. Harris)

Genes, Development, and Cancer (Eric N. Olson)

Growth Factors, Their Receptors, and Differentiation

(Angie Rizzino)

New Strategies and Targets for Chemotherapy (Joseph R. Bertino and Eddie Reed)

Genetic Approaches to Invasion and Metastasis (Robert S. Kerbel and Patricia S. Steeg)

Immunotherapy: Tumor Vaccines (David A. Berd)

Graft versus Tumor Effects

Dietary Intervention in Hormonal Carcinogenesis (Diane F. Birt and Lovell A. Jones)

The Role of Stromal-Epithelial Interactions in Growth and Neoplasia (Leland W. K. Chung)

Cancer Prevention and Intermediate Biomarkers (Peter Greenwald)

Translational Research in Breast Cancer

DNA Methylation (Peter A. Jones and Stephen B. Baylin)

METHODS WORKSHOPS

General, *In Situ*, and Quantitative PCR (including Differential Display)

Gene Targeting: Transgenics and Knockouts

CONTROVERSY SESSIONS

Are Estrogens Implicated in Breast Cancer?

Is Mammography Before Age 50 Beneficial?

What Are the Limits and Benefits of the PSA Assay?

Breast Cancer Prevention: What Will We Advise Women with BRCA1?

What Are the Risks of Electromagnetic Fields in Causing Cancer?

Is Bone Marrow Transplantation Indicated for Breast Cancer?

MEET-THE-EXPERT SUNRISE SESSIONS

New Developments in Clinical Pharmacology (Merrill J. Egorin)

Site-specific Gene Expression in Transgenic Animals (Norman Greenberg)

Organ-specific Carcinogenesis (Cheryl Lyn Walker)

Modeling and Analyzing Clinical Trials (Steven Piantadosi)

Multivariate Determinants of Radiocurability

Multidrug Resistance (Victor Ling)

Cytokines, Vaccines, and Gene Therapy (Jonathan W. Simons)

Tyrosine Kinases and Phosphatases

Prostate Cancer (John T. Isaacs)

Lung Cancer

Colon Cancer

Pediatric Malignancies (Joseph V. Simone)

Hematological Malignancies

Stem Cell Transplantation (Elizabeth J. Shpall)

Epidemiology and Cancer Prevention (Elizabeth W. Newcomb)

Is a Mutagenic Event Involved in Initiation? (Ann R. Kennedy)

Glutathione S-Transferase

Farnesyl Transferase as a Target for Therapy (Alexander W. Wood)

Liver Cancer Etiology and Prevention (John D. Groopman)

Biochemical Determinants of Carcinogenesis (Allan B. Okey)

EDUCATIONAL WORKSHOPS

To Be Announced



AMERICAN ASSOCIATION FOR CANCER RESEARCH SCIENTIFIC CONFERENCES

NOVEMBER 7-11, 1994

***Modern Developments in Cancer
Therapeutics***

Joint Meeting with Academia Sinica
Chairpersons: Yung-chi Cheng, New Haven, CT;
Cheng-Wen Wu, Taipei, Taiwan
Academia Sinica, Taipei, Taiwan, R.O.C.

NOVEMBER 29-DECEMBER 4, 1994

***Translational Research in Cancer:
New Opportunities for Progress***

Chairperson: Carlo M. Croce, Philadelphia, PA
Grove Park Inn, Asheville, NC

DECEMBER 8-13, 1994

***Basic and Clinical Aspects of
Prostate Cancer***

Chairperson: Donald S. Coffey, Baltimore, MD
Marriott's Rancho Las Palmas Resort, Rancho
Mirage (Palm Springs), CA

JANUARY 14-19, 1995

***Mechanism of Action of Retinoids,
Vitamin D, and Steroid Hormones***

Chairpersons: Michael B. Sporn, Bethesda, MD;
Ronald M. Evans, San Diego, CA; David
Mangelsdorf, Dallas, TX
Whistler Resort and Conference Centre, Whistler,
B.C., Canada

FEBRUARY 13-18, 1995

***Molecular Biology of Cancer: Implications
for Prevention and Therapy***

Joint Meeting with Japanese Cancer Association
Chairpersons: Lee W. Wattenberg, Minneapolis,
MN; Masaaki Terada, Tokyo, Japan
Maui Marriott Hotel, Maui, HI

MARCH 19-22, 1995

86th Annual Meeting

Chairperson: Donald S. Coffey, Baltimore, MD
Metro Toronto Convention Centre, Toronto,
Ontario, Canada
(Abstract Deadline: October 14, 1994)

APRIL 1-6, 1995

***Signal Transduction of Normal
and Tumor Cells***

Chairperson: Anthony J. Pawson, Toronto,
Ontario, Canada
Banff Centre, Banff, Alberta, Canada

OCTOBER 14-18, 1995

Cytokines and Cytokine Receptors

Chairperson: Steven Gillis, Seattle, WA
The Sagamore, Bolton Landing (Lake George), NY

NOVEMBER 5-9, 1995

***Cancer: The Interface Between
Basic and Applied Research***

Chairpersons: Bert Vogelstein, Baltimore, MD;
Stephen H. Friend, Charlestown, MA; John D.
Minna, Dallas, TX
Stouffer Harborplace Hotel, Baltimore, MD

NOVEMBER 17-21, 1995

***Novel Strategies Against
Resistant Cancers***

Chairpersons: Victor Ling, Toronto, Ontario,
Canada; Daniel D. Von Hoff, San Antonio, TX
Sanibel Harbour Resort & Spa, Ft. Myers, FL

DECEMBER 2-6, 1995

***The Molecular Basis of
Gene Transcription***

Chairperson: Tom Curran, Nutley, NJ
Hotel Del Coronado, Coronado (San Diego), CA

AACR members will receive brochures on the
above special conferences as soon as they are
available. Nonmembers should call or write:

American Association for Cancer Research
Public Ledger Building, Suite 816
150 South Independence Mall West
Philadelphia, PA 19106-3483
215-440-9300 • 215-440-9313 (FAX)

AACR SPECIAL CONFERENCE IN CANCER RESEARCH

Translational Research in Cancer: New Opportunities for Progress

*Supported by a Generous Grant from the
National Institute of Environmental Health Sciences*



November 29 - December 4, 1994
The Grove Park Inn, Asheville, North Carolina

CONFERENCE CHAIRPERSON

Carlo M. Croce / Philadelphia, PA

PROGRAM COMMITTEE

Martin D. Abeloff / Baltimore, MD

Clara D. Bloomfield / Buffalo, NY

Bruce D. Cheson / Bethesda, MD

Robert L. Comis / Philadelphia, PA

Mark A. Israel / San Francisco, CA

Marc E. Lippman / Washington, DC

SCIENTIFIC PROGRAM

Keynote Address

Webster K. Cavenee / La Jolla, CA

Hematopoietic Malignancies - Biology

Max D. Cooper / Birmingham, AL

Edward A. Clark / Seattle, WA

Bice Perussia / Philadelphia, PA

Drew M. Pardoll / Baltimore, MD

Hematopoietic Malignancies - Molecular Biology

Carlo M. Croce / Philadelphia, PA

Eli Canaani / Rehovot, Israel

Stephan W. Morris / Memphis, TN

Hematopoietic Malignancies - Treatment

Albert B. Deisseroth / Houston, TX

Neal A. Flomenberg / Milwaukee, WI

Lee M. Nadler / Boston, MA

Bruce D. Cheson / Bethesda, MD

John C. Reed / La Jolla, CA

Clara D. Bloomfield / Buffalo, NY

Cytogenetics of Solid Malignancies/ Sarcomas/Brain Tumors

Felix Mitelman / Lund, Sweden

Frederic G. Barr / Philadelphia, PA

Mark A. Israel / San Francisco, CA

Mark Noble / London, England

Prostate Cancer and Ovarian Cancer

John T. Isaacs / Baltimore, MD

Donald S. Coffey / Baltimore, MD

Thomas C. Hamilton / Philadelphia, PA

Robert F. Ozols / Philadelphia, PA

Lung Cancer

John D. Minna / Dallas, TX

Susan L. Naylor / San Antonio, TX

Paul A. Bunn, Jr. / Denver, CO

Breast Cancer

Marc E. Lippman / Washington, DC

Ira Pastan / Bethesda, MD

Karl Erik Hellström / Seattle, WA

Charles R. King / Gaithersburg, MD

Lance A. Liotta / Bethesda, MD

Jackson B. Gibbs / West Point, PA

Martin D. Abeloff / Baltimore, MD

Colorectal Cancer

Raymond L. White / Salt Lake City, UT

Richard Fishel / Burlington, VT

Glenn Steele, Jr. / Boston, MA

*Applicants are encouraged to submit abstracts
for poster presentation.*

Information and Application Forms

American Association for Cancer Research
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215-440-9300 215-440-9313 (FAX)

MOLECULAR BIOLOGY OF CANCER: IMPLICATIONS FOR PREVENTION AND THERAPY



Third Joint Conference of the American Association for Cancer Research and the Japanese Cancer Association

Maui Marriott Hotel, Maui, HI
February 13-18, 1995



SCIENTIFIC PROGRAM COMMITTEE

AACR

LEE W. WATTENBERG / Minneapolis
Co-Chairperson
JOSEPH R. BERTINO / New York
WEBSTER K. CAVENEE / La Jolla
WAUN KI HONG / Houston
MICHAEL B. SPORN / Bethesda

JCA

MASAAKI TERADA / Tokyo
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YOSHIYUKI HASHIMOTO / Sendai
HIROO IMURA / Kyoto
NOBUYUKI ITO / Nagoya
TADAO KAKIZOE / Tokyo
TOMOYUKI KITAGAWA / Tokyo
HIROSHI KOBAYASHI / Sapporo
TAKAO SEKIYA / Tokyo
MASANORI SHIMOYAMA / Tokyo
HARUO SUGANO / Tokyo
TAKASHI SUGIMURA / Tokyo
SUKETAMI TOMINAGA / Nagoya
KUMAO TOYOSHIMA / Osaka
TAKASHI TSURUO / Tokyo

SCIENTIFIC PROGRAM

Keynote Addresses

TAKASHI SUGIMURA / Tokyo
LEE W. WATTENBERG / Minneapolis

Differentiation

*TOMOYUKI KITAGAWA / Tokyo
*MICHAEL B. SPORN / Bethesda
HOYOKU NISHINO / Tokyo
LORRAINE J. GUDAS / New York
TOSHIO KUROKI / Tokyo
MARTIN LIPKIN / New York

Signal Transduction

*FRANK McCORMICK / Richmond
*TAKASHI TSURUO / Tokyo
YOSHIMI TAKAI / Osaka
MASABUMI SHIBUYA / Tokyo
I. BERNARD WEINSTEIN / New York
TADATSUGU TANIGUCHI / Osaka

Hormones and Receptors

*KUMAO TOYOSHIMA / Osaka
*BRIAN E. HENDERSON / La Jolla
MICHAEL N. GOULD / Madison
JOHN T. ISAACS / Baltimore
KEN YAMAGUCHI / Tokyo
TADAMITSU KISHIMOTO / Osaka

Multi-Step Carcinogenesis and Genomic Instability I

*HIROO IMURA / Kyoto
*WEBSTER K. CAVENEE / La Jolla
MASAAKI TERADA / Tokyo
RAYMOND L. WHITE / Salt Lake City
MINAKO NAGAO / Tokyo
YUSUKE NAKAMURA / Tokyo

Multi-Step Carcinogenesis and Genomic Instability II

*ALLAN H. CONNEY / Piscataway
*HIROSHI KOBAYASHI / Sapporo
NOBUYUKI ITO / Nagoya
MUTSUO SEKIGUCHI / Fukuoka
THEA D. TLSTY / Chapel Hill
TOSHIKAZU NAKAMURA / Osaka
SHIGEKAZU NAGATA / Osaka
JOSEPH R. BERTINO / New York

Chemoprevention *in Vivo*

*WAUN KI HONG / Houston
*SUKETAMI TOMINAGA / Nagoya
ALLAN H. CONNEY / Piscataway
YASUTOSHI MUTO / Gifu
PETER GREENWALD / Bethesda
SHIGEO HINO / Yonago

Special Lecture

CARLTON GAJDUSEK / Bethesda

Genetic Intervention

*YOSHIYUKI HASHIMOTO / Sendai
*JACK S. COHEN / Rockville
MITSUHIRO YANAGIDA / Kyoto
ERIC J. STANBRIDGE / Irvine
RICHARD C. MULLIGAN / Cambridge
KIYOJI TANAKA / Osaka

Scientists are encouraged to submit abstracts of papers for consideration for poster sessions. Persons in the Americas and countries other than Japan may obtain additional information from the AACR Office.

* designates Session Chairperson

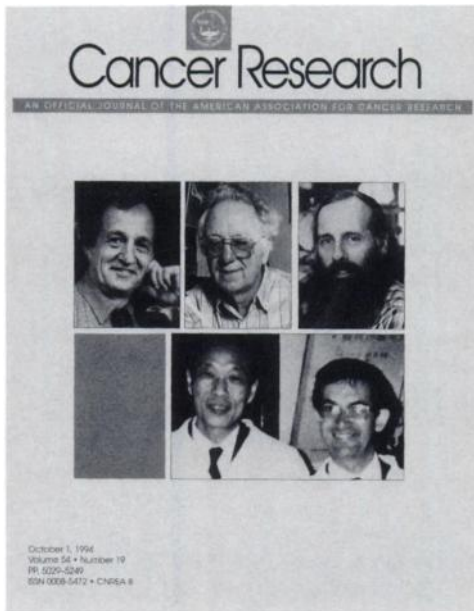
American Association for Cancer Research

Public Ledger Building, Suite 816
150 South Independence Mall West
Philadelphia, PA 19106-3483 USA
Telephone: (215) 440-9300
FAX: (215) 440-9313

Office of the Japanese Cancer Association for the 3rd Joint Conference

c/o National Cancer Center
5-1-1 Tsukiji, Chuo-ku
Tokyo, 104 JAPAN
Telephone: (03)-3542-2511 ext. 4101
FAX: (03)-3248-0326

COVER LEGEND



The 1994 General Motors Cancer Research Foundation Awards were announced on June 14, 1994, by Foundation President Joseph G. Fortner. This year's recipients of these prestigious awards were five scientists from the United States, China, and France. Mario R. Capecchi, of the Howard Hughes Medical Institute in Salt Lake City, UT, and Oliver Smithies, of the University of North Carolina, Chapel Hill, NC, shared the Alfred P. Sloan, Jr. Prize for basic science; Tony Hunter, of the Salk Institute in La Jolla, CA, received the Charles S. Mott Prize for his contributions to the understanding of the etiology of cancer; and Laurent Degos, of the Hôpital Saint Louis, Paris University VII, Paris, France, and Wang Zhen-Yi, of the Shanghai Second Medical University in the People's Republic of China, shared the Charles F. Kettering Prize for advances in cancer treatment.

Drs. Capecchi and Smithies (*cover, top row, from left*) were recognized for developing the method of gene targeting that provides investigators with the means to alter the mammalian genome in living mice. An altered form of the gene is first introduced into embryonic stem cells, where it lines up with the homologous gene and changes it. The changed stem cells are then used to produce living mice having the altered gene.

Dr. Smithies has applied the method in generating mouse models of human genetic diseases. Dr. Capecchi has used the method to study how genes function during development. Furthermore, this technology has had an impact on the analysis of most mammalian biological processes including cancer, human physiology, human genetic diseases, immunology, neurobiology, and development. This methodology offers future promise for the treatment of a variety of human genetic diseases, including cancer.

Dr. Capecchi was born in Verona, Italy; he came to the United States as a child and earned the Ph.D. in Biophysics at Harvard, where he studied under James Watson and Walter Gilbert, both Nobel laureates. Dr. Smithies was born in Halifax, England, and did graduate work at Oxford and postdoctoral studies at the University of Wisconsin, Madison, WI.

Dr. Hunter (*cover, top row, right*) was born in Ashford, Kent, England. He became interested in molecular biology when he was a graduate student at Cambridge and then joined the Salk Institute where he is now a Professor. He is well known for his discovery of the protein tyrosine kinases and his elucidation of the role that tyrosine phosphorylation plays in the action of growth factor receptors in regulating cell growth and of oncogene products in causing malignant transformation. Perturbation of normal regulatory mechanisms that use tyrosine phosphorylation often plays a crucial part in cancer development.

Drs. Degos and Wang, (*cover, bottom row, from right*) collaborators since 1985, have worked together to achieve long-term full remission of acute promyelocytic leukemia (APL) with all-*trans* retinoic acid, a landmark in demonstrating that cancer can be reversed by differentiation therapy, an innovative process for attacking cancer cells by reversal of what formerly appeared to be a relentless, one-way, irreversible process. It is now becoming the treatment of choice for APL. Dr. Degos, a native of Paris, received the Ph.D. and M.D. degrees at Paris University VII and completed postdoctoral studies at Oxford. Dr. Wang is Professor of Medicine and Pathophysiology at Shanghai's Second Medical University and Director of the Shanghai Institute of Hematology.

We are indebted to the General Motors Cancer Research Foundation for information and photographs.

Sidney Weinhouse