

Making an Impact on the Cure and Prevention of Cancer

**Susan Band Horwitz, Ph.D., President, AACR
Albert Einstein College of Medicine**

**Meeting of the National Cancer Advisory Board
February 11, 2003**

Working to Prevent and Cure Cancer

American Association for Cancer Research

- Established in 1907, the oldest and largest scientific society in the world devoted to all aspects of cancer research
- 19,700 members from over 60 countries
--basic scientists, clinical and translational researchers, population scientists, related health professionals

Working to Prevent and Cure Cancer

Mission

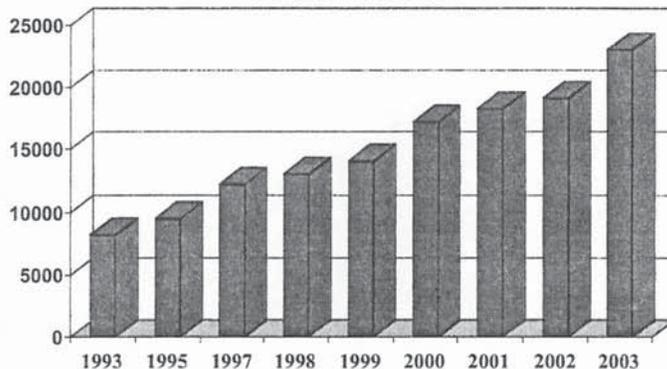
To Prevent and Cure Cancer through:

- Research
- Education
- Communication
- Collaborations

Focus on further development of partnerships with NCI

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Membership Growth 1993-2003



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AACR Strengths

- Excellence in scientific and educational programs
- Size and diversity
- International scope
- Expertise in science policy, legislative affairs, and public health issues
- Networking and mentoring
- Dedicated service of members

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Core Scientific and Professional Development Programs

- Scientific journals
- Annual meetings
- Special conferences and international meetings
- Comprehensive, mid-sized meetings
- Educational Workshops
- Career Development Programs for:
 - Junior Basic and Clinical Investigators
 - Minorities in Cancer Research
 - Women in Cancer Research

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AACR Scientific Retreat New Frontiers in Cancer Research

February 11 & 12, 2002 • Boston, MA
Phillip A. Sharp, Ph.D., Chairperson

Basic Science

Leland H. Hartwell, Chair
Stanley J. Korsmeyer, Co-Chair
Sara A. Courtneidge
Charles J. Sherr
Jeffrey M. Trent

Translational Research

O. Michael Colvin, Chair
William N. Hait
Lee M. Nadler
Drew M. Pardoll

Clinical Research

Karen S.H. Antman, Chair
Frederick R. Appelbaum
Anna D. Barker
Alexander M. Marie Eggermont
Joseph V. Simone
Peter F. Thall

Epidemiology & Prevention

John D. Potter, Chair
Pelayo Correa
Raymond N. DuBois
David J. Hunter
Bernard A. Levin
Thomas A. Sellers

AACR Officers

Susan Band Horwitz
Waun Ki Hong
Bayard D. Clarkson
Tom Curran
Margaret Foti, Ph.D.

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New Horizons

- **Mathematics, Computational Molecular Biology, Physical Sciences, Engineering**
 - Enhance cross-disciplinary scientific communication and planning
- **Chemical Biology**
 - Reinvigoration of a traditional discipline
- **Biological Imaging**
- **Drug Development**
 - New approaches accelerating time to clinic
- **Translation of new discoveries into real benefits for cancer patients**
- **Scientific Communication and International Collaborations**

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Clinical Cancer Research Committee's Special Task Force on Strategic Planning

- Held on January 5-7, 2003 (15 scientists)
- William N. Hait, M.D., Ph.D., Chairperson
- To create a multi-faceted action plan to strengthen translational research and to address barriers between basic research and its clinical application

Clinical Cancer Research Committee's Special Task Force on Strategic Planning

Action Plan:

- Mechanistic-based therapies
- Accelerated clinical trials based on surrogate or intermediate markers
- Individualized treatments
- Validated diagnostic and prognostic tests

AACR Scientific Think Tank

- Held on January 19-21, 2003 (30 scientists)
- To understand our role in the rapidly evolving environment of cancer research
- To identify scientific areas that are of the highest priority and potential, and suggest new approaches AACR can take to be a greater catalyst for eradicating cancer

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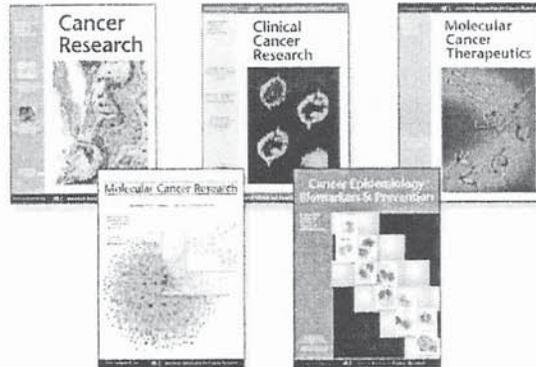
AACR Scientific Think Tank (cont'd)

High Priority Scientific Areas:

- Cancer gene discovery and validation
- Cancer models
- Epigenetics
- *In vivo* imaging
- Bioinformatics and computational molecular biology
- Clinical trial methodology
- Molecular epidemiology
- Proteomics

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AACR Journals

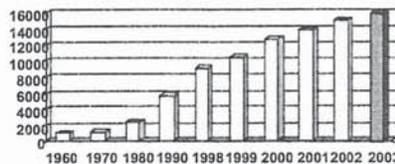


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Multidisciplinary Annual Meeting

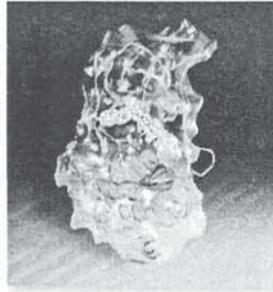
- Communicating highest quality research in basic research, clinical/translational research, and epidemiology/prevention
- Increasing participation of all members of the cancer community

AACR Total Annual Meeting Attendance



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94th
Annual Meeting
2003



April 5-9, 2003 • Toronto, Ontario, Canada

Program Chairperson: Sara A. Courtneidge, Ph.D.
Co-Chairpersons: Susan G. Ardeck, William N. Hait, Tyler E. Jacks,
Alex Matter, William G. Nelson V., Anthony J. Pawson,
Margaret R. Spitz, Jeffrey M. Trent

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Recognizing and Fostering Highest Quality Research

- Scientific awards and lectureships
- Named research professorships
- Scholar awards for investigators-in-training
- Career development awards
- Research fellowships

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Public Education

- Educate the legislators, the Administration, and the public about progress and the need for increased support for cancer research
- Provide expert commentary on science and public policy
- Interface with national/international media
- AACR Public Forum/Ask the Experts Sessions
- Scientist↔Survivor Program

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AACR Public Forum



Saturday, April 5, 2003
Toronto, Ontario, Canada

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2002 Public Forum Program

Overview and introduction of Speakers
Anna D. Barker, Ph.D., Chairperson

Knowledge is Power-
How Understanding Cancer Can Help You
Donald S. Coffey, Ph.D.

The Human Genome and Cancer
Jeffrey M. Trent, Ph.D.

New Cancer Medicines and Treatment
Dennis J. Slamon, M.D., Ph.D.

Perspectives on Cancer, Survivorship, and Advocacy
Hamilton Jordan

Cancer Prevention: What You Can Do
John D. Potter, M.D., Ph.D.

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Ask-the-Experts Sessions

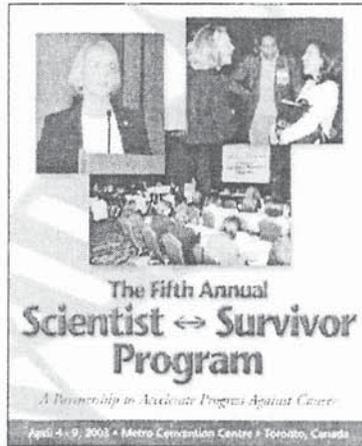
- One-on-one interaction between the public and leading scientists
- Information about cancer and clinical trials
- All organ sites and sub-fields of cancer research are highlighted



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AACR American Association
for Cancer Research

AACR Scientist ↔ Survivor Program



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AACR American Association
for Cancer Research

AACR-NCI-EORTC Meeting Molecular Targets and Cancer Therapeutics:

Discovery, Biology, & Clinical Applications

November 17-21, 2003

Boston, Massachusetts

Chairpersons: Charles L. Sawyers, M.D.,
Edward A. Sausville, M.D., Ph.D. & Jaap Verweij, M.D., Ph.D.

Annual Event in US and Europe

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Second Annual International Meeting Frontiers in Cancer Prevention Research:

*Genetics, Risk Modeling, Molecular Targets for Chemoprevention,
Behavioral Prevention Research, Clinical Prevention Trials,
Science and Public Policy*

**October 26-30, 2003
Phoenix, Arizona**

Chairperson: Raymond N. DuBois, M.D., Ph.D.
Co-Chairpersons: Ernest T. Hawk, M.D., Paul Kleihues, M.D.,
Scott M. Lippman, M.D., Barbara K. Rimer, Dr. PH,
Margaret R. Spitz, M.D., Makoto Mark Taketo, M.D., Ph.D.

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Treatment and Prevention of Intraepithelial Neoplasia: An Important Target for Accelerated New Agent Development

*Recommendations of the AACR Research Task Force on the
Treatment and Prevention of Intraepithelial Neoplasia*

Joyce A. O'Shaughnessy, Gary J. Kelloff, M.D., Gary B. Gordon, M.D., Ph.D.,
Waun Ki Hong, M.D., Carol J. Fabian, M.D., Caroline C. Sigman, Ph.D.,
Monica M. Bertagnolli, M.D., Steven P. Stratton, Ph.D., Stephen Lam, M.D.,
William G. Nelson V, M.D., Ph.D., Frank L. Meyskens, Jr., M.D., David S. Alberts, M.D.,
Michele Follen, M.D., Anil K. Rustgi, M.D., Vassiliki A. Papadimitrakopoulou, M.D.,
Peter T. Scardino, M.D., Adi F. Gazdar, M.D., Lee W. Wattenberg, M.D.,
Michael B. Sporn, M.D., Wael A. Sakr, Scott M. Lippman, M.D., and Daniel D. Von Hoff, M.D.

Clinical Cancer Research 8: 314-346, February 2002

Working to Prevent and Cure Cancer

Special Conferences and International Meetings

- Focused meetings covering cutting-edge and emerging science
- Prestigious international faculty
- 8-10 meetings per year around the world
- Selected Topics:
 - Oncogenomics
 - Mouse models of cancer
 - Apoptosis and cancer
 - Cellular senescence and telomerase
 - Bioinformatics
 - *In vivo* imaging
 - Genes and the environment

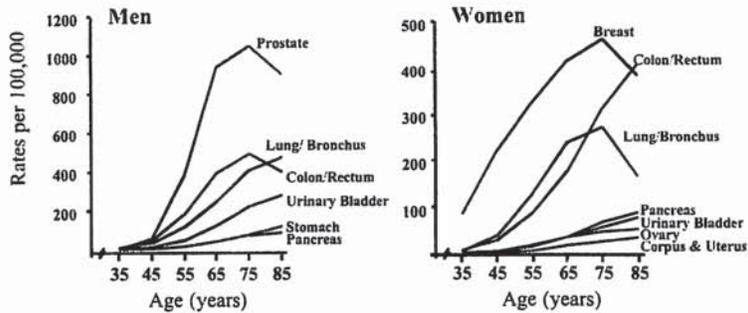
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AACR Task Forces

- Comprehensive Cancer Prevention Strategy
Waun Ki Hong, M.D., Chairperson
- Cancer Immunology
Louis M. Weiner, M.D., Chairperson
- Pediatric Oncology
Robert J. Arceci, M.D., Ph.D., Chairperson
- Biostatistics in Clinical Research
Steven Piantadosi, M.D., Ph.D., Chairperson
- Bioinformatics
Andreas D. Baxevanis, Ph.D., Chairperson
- Aging and Cancer
Harvey Jay Cohen, M.D., Ph.D. & Judith Campisi, Ph.D.,
Chairpersons

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Aging and Cancer



Compiled from SEER Cancer Statistics Review

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Task Forces in Development

- Behavioral Science
- Cancer in Minorities and the Medically Underserved
- Tobacco and Cancer

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Annual Educational Workshops

(Supported by generous grants from the NCI)

- AACR-ASCO Workshop: Methods in Clinical Cancer Research, Vail, Colorado (1996 -)
- FECS-AACR-ASCO Workshop: Methods in Clinical Cancer Research, Flims, Switzerland (1999 -)
- AACR Workshop: Molecular Biology in Clinical Oncology, Aspen, Colorado (1992 -)
- AACR Workshop: Pathobiology of Cancer, Keystone, Colorado (1993 -)

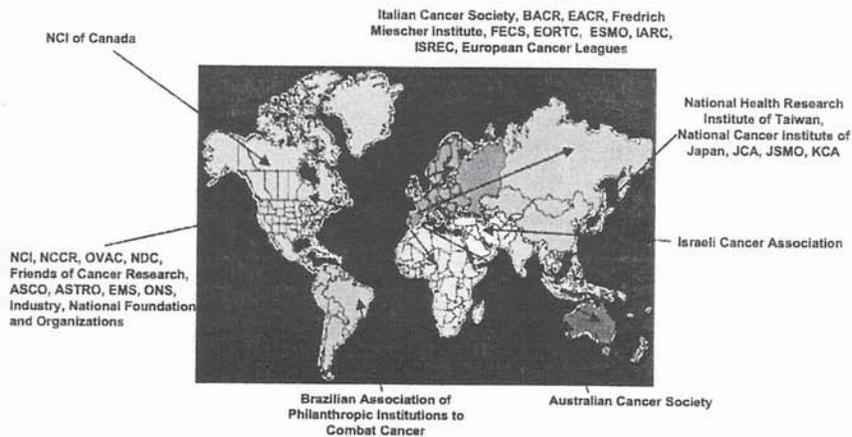
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Newest Programs in Development

- Frontiers in Basic Cancer Research Meeting
- Translational Issues for Targeted Drug Development
- Practicum for the Community Oncologist Investigator: From Basic Science to the Development of a Clinical Trial Plan
- Educational Workshops
 - Molecular Epidemiology
 - Biostatistics in Clinical Research
 - Bioinformatics in Cancer Research

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Worldwide Collaborations and Partnerships



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21st Century Cancer Research-- A World of Rapid Change

- Globalization of science
- Increasing needs of the scientific community
- Urgency of educating the next generation of scientists
- Information technology advancements
- Need for partnerships
- Increasing demands of the public

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Americans' Attitudes Toward Cancer Research

***A Poll Commissioned by
the AACR***

In August 2000, Peter D. Hart Research Associates conducted a survey to determine attitudes of the public about cancer.

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“Which ONE of these illnesses do you worry the most about getting during your lifetime?”

	%
Cancer	48
Heart Disease	15
Alzheimer’s Disease	10
Diabetes	7
AIDS	5
Multiple Sclerosis	1

Source: AACR Nationwide Survey of Voters on Attitudes Toward Cancer Research (Aug. 2000)

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“What do you think are the odds that you will develop cancer during your lifetime?”

	%
One in a thousand	24
One in a hundred	26
One in ten	18
One in five	8
One in three	3
One in two	4

Source: AACR Nationwide Survey of Voters on Attitudes Toward Cancer Research (Aug. 2000)

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Probability of Developing Invasive Cancer

Male	1 in 2
Female	1 in 3

Less than 10% of those surveyed gave correct answers.
Half of those surveyed thought the chance was less
than 1 in 100.

Source: AACR Nationwide Survey of Voters on Attitudes Toward Cancer Research (Aug. 2000)

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Survey Results

- Despite the denial of their own risk of cancer, **70%** of those polled wanted the Federal Government to **AT LEAST** double Federal research spending to find a cure for cancer.
- **46%** wanted the Federal Government to **AT LEAST** triple current funding levels.

Source: AACR Nationwide Survey of Voters on Attitudes Toward Cancer Research (Aug. 2000)

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Cost of Cancer

- Human suffering cannot be measured
- Costs of treatment and premature death alone have almost doubled in one year
- Overall cost of cancer in U.S. in 2002: \$172 billion
- By 2015, the cost could exceed \$500 billion per annum.

Source: NIH data, American Cancer Society, Cancer Facts and Figures 2003

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AACR and the NCI

- AACR has presented to NCAB annually since 1991
- 530 AACR members NCI
- AACR members in the extramural community attain NCI support for research
- AACR-NCI Partnerships
 - AACR-NCI-EORTC Molecular Targets meeting series
 - Conference grants
 - Minority scholarships for meeting participation
 - Educational workshops

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AACR-NCI Shared Concerns About Cancer

- Enormous scale of the problem and the human suffering
 - Necessitates that we respond with energy, creativity, and urgency
- Barriers to progress in spite of the remarkable pace of scientific discovery
 - Require new strategies and funding for cross-disciplinary research
 - Challenge us to develop new constructs and mechanisms to foster translational research in this new era of cancer science

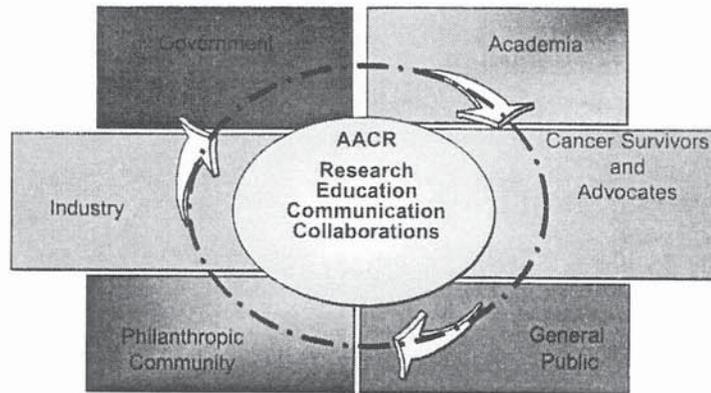
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New Collaborations with NCI

- Public education
- Education and Training
- Prevention
- Tumor Immunology
- Aging and Cancer
- Dialogue about scientific priorities

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AACR: A Catalyst for Discovery and Innovation



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