

AACR – A Second Century of Leadership in Cancer Science and Medicine

William N. Hait, M.D., Ph.D. President, AACR

Report to the National Cancer Advisory Board NCI/NIH, Bethesda, MD February 5, 2008

In Memoriam Judah Folkman, M.D. (1934-2008)

- AACR Member
- Associate Editor of Cancer Research (1990-2000) and Clinical Cancer Research (1999-2002)
- 1985 recipient of the AACR-G.H.A. Clowes Memorial Award in recognition of his outstanding accomplishments in cancer research
- Frequent convener and lecturer at AACR meetings
- Trustee of the AACR Foundation for the Prevention and Cure of Cancer (2006-2008)





Agenda

- Update the NCAB on the progress of the AACR
- Specifically we will discuss
 - AACR overview and strategic goals
 - Efforts to increase cancer research funding
 - Globalization
 - Translational research
 - Demographic Councils
 - Support of underserved populations
 - Future
 - Prevention
 - Annual Meeting
 - Summary



AACR and NCI - Shared Missions

AACR

 To prevent and cure cancer through research, education, communications, and collaborations

NCI

 Reduce the burden and eliminate adverse outcomes of cancer by leading an integrated effort to advance fundamental knowledge about cancer across a dynamic continuum of discovery, development, and delivery



AACR Overall Strategic Goals

- To foster the highest quality cancer research, incorporating all relevant scientific disciplines
- To maintain our standing as the authoritative source for the latest cancer research findings
- To help plan for the cancer workforce of the future
- To fund both senior and junior scientists who are conducting cutting-edge cancer research
- To serve as the authoritative voice for cancer research and address the concerns of the public about policy
- To develop synergistic national and international partnerships with scientists and physicians, patient advocates, and scientific institutions and organizations



Presidential Vision Statement

"The AACR stands as a beacon for those who understand and therefore value the importance of excellence in research to the ultimate conquest of cancer."



Responsibility

"To maintain our focus on excellence in cancer research"

- As the leading cancer research organization in the world, AACR has the responsibility to be a clear voice for the major scientific policy issues of the day. Perhaps none other is more pressing than the under-funding of cancer and biomedical research through diminishing growth in the budgets of the National Cancer Institute.
- AACR can speak more authoritatively than any other organization to what this inadequate investment in cancer research means to the entire cancer research enterprise. Careers of trainees, junior faculty, and senior investigators alike are in jeopardy, and ultimately, there is a negative impact on people's lives. We must work tirelessly to reverse this trend and make cancer a national priority.



AACR Goals in Science Policy and Legislative Affairs

- Cancer research must be restored as a U.S. priority and rapidly made an international imperative
- Educate legislators, policymakers, and members of the media about cancer and the value of cancer research
- Communicate the economic opportunities in cancer research
- Advocate for increased funding
- Work with the U.S. FDA to accelerate drug approval
- Emphasize the economic and human cost of cancer
 - \$104B in 1997
 - \$190B in 2004
 - \$206.3B in 2006



AACR Goals in Science Policy and Legislative Affairs

AACR Washington Office

- 1425 K Street NW, Washington, DC
- Initial staff of 6 professionals
- Multifaceted agenda enables the AACR to forge relationships with various sectors in the cancer research community
- Facilitates regular contact with key stakeholders and policy makers



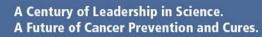
AACR Centennial



AACR - The First and Largest Cancer Research Organization in the World

- 2007 began three-year commemoration of AACR's Centennial and accomplishments
- Activities include:
 - Centennial Ceremony Annual Meeting/ Commemorative Videos
 - Inaugural Centennial Medals for Distinguished Public Service
 - Landmarks in Cancer Research
 - Centennial Concert
 - Gala Dinner and Lobby Day in Washington, DC
 - Commission of publication of historical treatises of 100 years of progress in cancer research
 - AACR Centennial Research Grant Fund
 - Public Forums on Cancer
 - Centennial Conference Series on Translational Cancer Medicine - U.S. and abroad







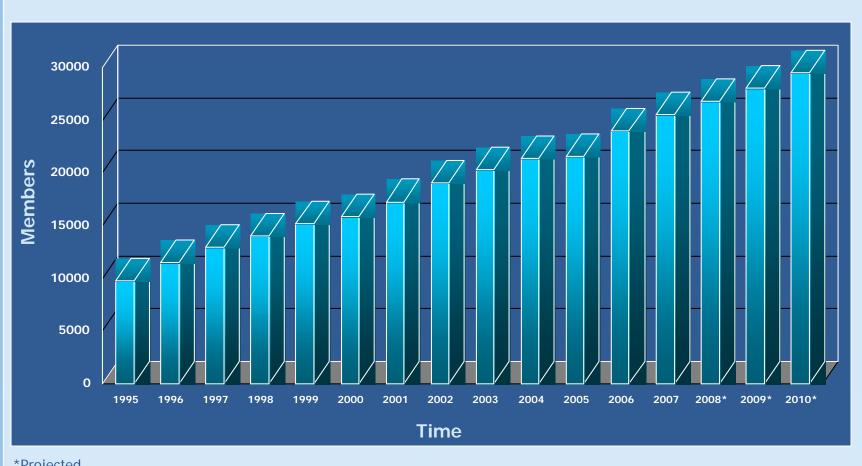
Membership

"AACR offers cancer researchers their most natural professional home

because of its diverse scientific membership..."



AACR Membership (1995-2010)

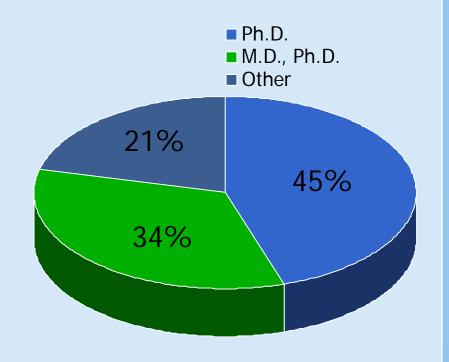


*Projected



Profile of AACR Membership

- >27,000 members in over
 70 countries
- Basic, clinical, and prevention cancer researchers, and other healthcare professionals in oncology
- Investigators in training (postdoctoral fellows; clinical fellows; other physicians-in-training)
- Graduate, undergraduate, and high school students
- Cancer survivors and patient advocates
- Organizations that support the mission of the AACR





AACR's Broad Scientific Scope

- Basic research
- Translational research
- Clinical research
- Cancer prevention research including epidemiology, population science, and behavioral research
- Fields relevant to cancer research
 - bioinformatics, engineering, mathematics, mathematical modeling, physics, emerging technologies, systems biology



Areas Covered by AACR

Diverse scientific scope creates a robust environment for creativity and synergies across various fields!!

- Angiogenesis
- Animal models
- Behavioral science
- Bioinformatics
- Biomarkers
- Carcinogenesis
- Cell death and senescence
- Chemistry/chemical biology
- Clinical research/trials
- Computational biology
- Drug development
- Epigenetics/ epigenomics

- Genetics
- Genomics
- Imaging
- Infection and cancer
- Immunology
- Inflammatiion
- Mathematical modeling
- Metabolism
- Metastasis/tumor microenvironment
- microRNAs
- Molecular diagnostics
- Molecular epidemiology
- Molecular targeted therapies
- Nanotechnology

- Nutritional science
- Pharmacology
- Pharmacogenomics
- Population science
- Prevention
- Proteomics
- RNAi therapies
- Signal transduction
- Stem cells
- Structural biology
- Systems biology
- Translational research
- Vaccines
- Virology
- And more. . .

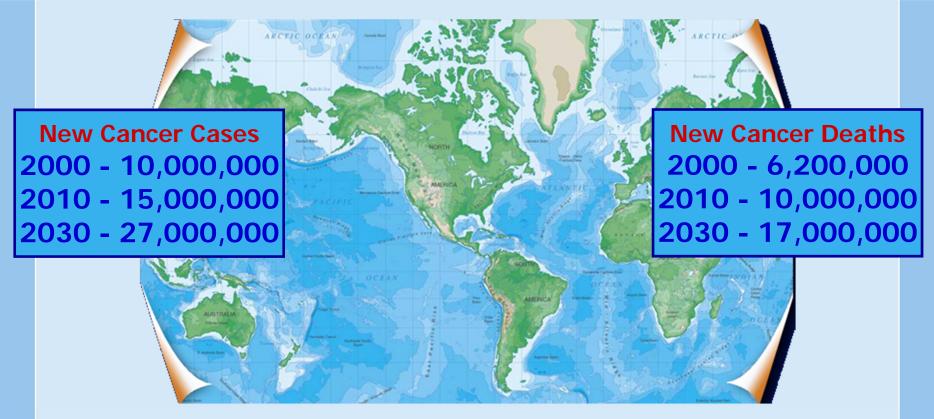


Globalization

"Cancer is a global challenge that will be met by global participation"



Global Cancer Burden



* In 2030, it is estimated that there will be 75 million cancer survivors in the world. We need to be ready for this!!

B. W. Stewart and P. Kleihues, *World Cancer Report*, WHO-IARC. Lyon: IARC Press, 2003; Peter Boyle, AACR Translational Cancer Medicine meeting, Singapore 2007.



Global Cancer Burden in 2030

Contributions to the increases in the cancer burden in less-developed countries:

- Growth of the world's population
- Aging of the world's population
- Introduction of cancer risk factors from developed countries to add to those already existing in lowand medium-resource countries



How Can This Negative Trend Be Reversed?

- View the increase in cancer incidence as a global emergency
- Collaborate on approaches that are relevant and adaptable to each specific region
- Involve local experts
- Work together collaboratively to stem this negative tide and save more lives from cancer!!





AACR International Efforts

Improve the lives of cancer patients around the world

- International Affairs Committee chaired by Tom Curran, Ph. D. and Tadatsugu Taniquchi. Ph. D.
- Partner in the pr international bor
- Meet the needs
- Promote a globa international and to cancer (scient

- 5,046 International attendance at 2007 AACR Annual Meeting
- 2,532 International attendance at Special Conferences (2003-present)
- Promote a globa

 25 Major AACR award and grant winners from countries outside of the U.S.
 - 6,559 AACR International membership
- Extend worldwide access to AACR programs, experts, and other resources
- Enhance public understanding of cancer research worldwide
- Enhance prevention efforts

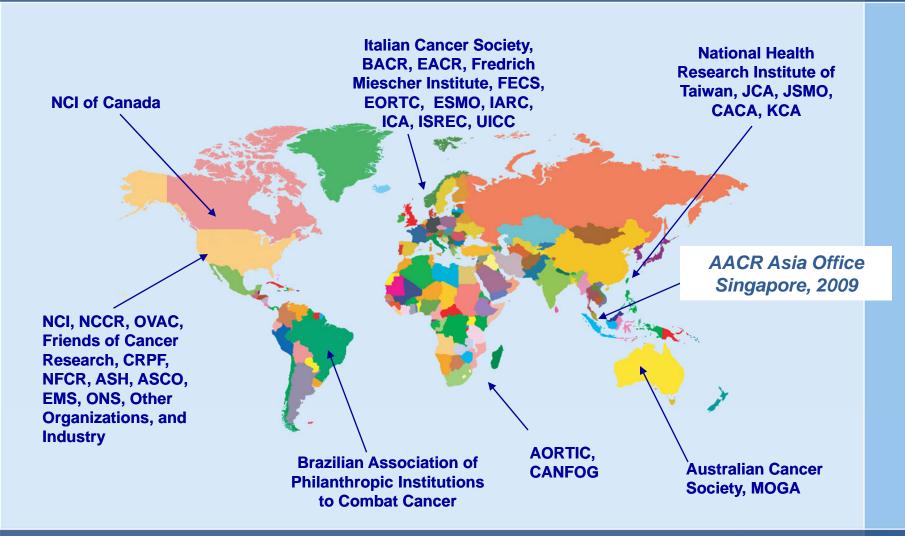


AACR-Asian Collaborations Past and Present

- Institute of Biomedical Sciences and the National Health Research Institute of Taiwan (1994)
- Japanese Cancer Association (JCA)
- Japanese Society of Medical Oncology (JSCO)
- Chinese Anti-Cancer Association (CACA)
- Korean Cancer Association (KCA)
- Genome Institute of Singapore (GIS)



International Scientific Partnerships





"AACR-Asia" Opening in Singapore (2009)

- First satellite office outside the U.S.
- Facilitate new opportunities for:
 - advances in science and technology
 - research collaborations
 - education and training
 - communications
 - cooperation and shared resources
 - learning from each other
 - addressing the cancer burden in Asia
- Maintain our global competitive edge





Electronic Access – Globalization of Cancer Information

AACR Journals 2002 - 2007

Online Pages

Accessed Worldwide

2002: 4M

2003: 8M

2004: 14M

2005: 18M

2006: 19M

2007: 25.6M

2008: 32M (Projected)





AACR International Conferences

- All AACR meetings are international in substantial participation of scientists around the world
- AACR is being called upon to do an increasing number of meetings outside the U.S.
- AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics Annual Conferences (biennially in Europe) and the Translational Cancer Medicine series
- Specialty conferences in the Middle East, Africa, Europe, Asia
- More international meetings are in the planning stages



Translational Research

"The application of a discovery to the practice of medicine."



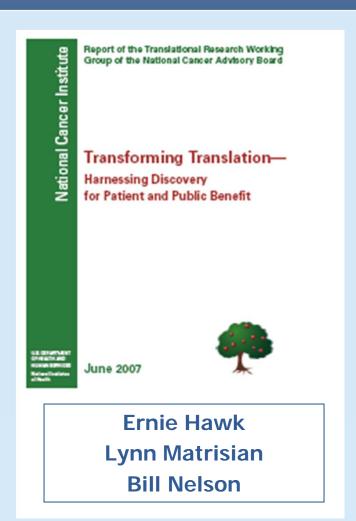
NCI Translational Research Working Group

TRWG

 Established in 2005 to conduct a discussion with the broader cancer research community to develop recommendations about how NCI can best organize its investment to further "translational research."

Commitment to translational research

 NCI is committed to speeding the development of new diagnostic tests, cancer treatments, and other interventions that benefit people with cancer and people at risk for cancer.





AACR Translational Research Think Tank

Culture

- Establish mechanism for people from different disciplines to work together
- In our desire to translate discoveries we must support team science but never shortchange the individual discoverers who enable application.

Human Resources

 Create a stable, effective army/orchestra of translational researchers to better link biology and medicine

Infrastructure

Define the best practices that known, approved, and implemented

Regulatory

 Create simple, streamlined, efficient processes that protect patients and promote research



Accelerating Progress in Translational Research

- AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics
- AACR-JCA Conference: In the Forefront of Basic and Translational Cancer Research
- Translational Breast Cancer Research Grant Program
- Translational Cancer Medicine Think Tank, July 2007
- International Meeting Series on Translational Cancer Medicine
 - Singapore, Amsterdam, Madrid, US
- Molecular Diagnostics in Cancer Therapeutics
- Landon Prize for Translational Cancer Research
- Rosenthal Award for Translational Cancer Research
- Team Science Award
- AACR-Industry Roundtable
- Annual Meeting Educational Sessions to train basic scientists to consider clinical applications



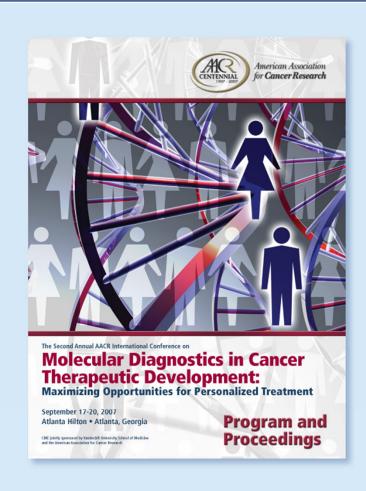
2007 AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics





Molecular Diagnostics in Cancer Therapeutic Development

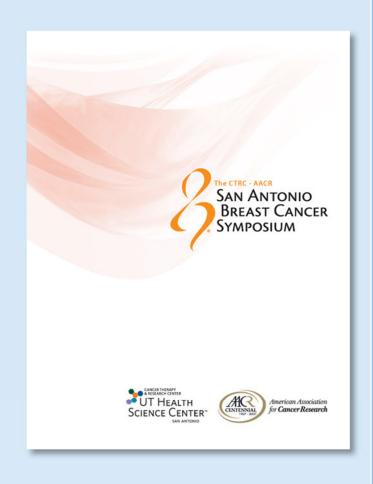
- Second AACR International Conference
- September 17-20, 2007, Atlanta, GA
- David Sidransky, M.D. Chairperson
- Over 150 proffered papers
- Attendance: 361
- Third Conference -September 22-25, 2008, Philadelphia, PA
- Gordon B. Mills, M.D., Chairperson





Translational Research Initiatives

- Cancer Research Giants
 Collaborate to Present
 The CTRC-AACR San Antonio
 Breast Cancer Symposium
- December 11-14, 2008 and beyond
- Partnership creates the largest and most comprehensive symposium of its kind by blending basic, translational, and clinical research related to breast cancer





AACR Journal of Clinical and Translational Research

Clinical Cancer Research

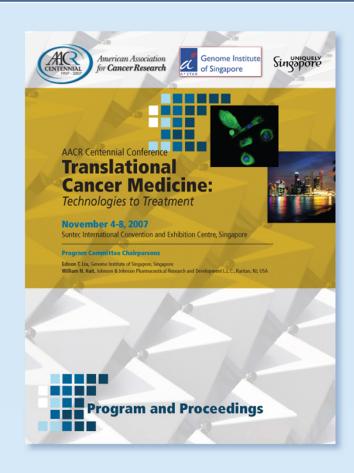
- Clinical and translational research on the characterization, diagnosis, and therapy of human cancer
- 3,200 submissions in 2007 (projected);
 175% increase since 2000
- Editor-in-Chief: Kenneth C. Anderson, M.D.





Translational Cancer Medicine Series Technologies to Treatment

- Singapore on November 2-8, 2007
- Edison T. Liu, M.D. and William N. Hait, M.D., Ph.D., Chairpersons
- Over 500 proffered papers
- Two Pre-conference Methods Workshops
- Attendance: 1,154 scientists from 29 countries





AACR Centennial Translational Cancer Medicine Conferences

- July 20-23, 2008 Monterey, California
- November 3-6, 2008 Jerusalem
- March 11-14, 2009 Amsterdam
- 2010 Korea and Taiwan (under consideration)
- 2011 Barcelona
- Other international locations being considered for future years: Japan, Singapore



AACR-FDA-NCI Project Cancer Biomarkers (2007-Present)

- Think Tank held November 26-27, 2006
- William N. Hait, M.D., Ph.D., Samir Khleif, M.D., and James Doroshow, M.D., Chairpersons
- Formation of the AACR-FDA-NCI Cancer
 Biomarkers Collaborative in 2007 (>100 scientists)
- Charge:
 - 1) Draft guidelines for validating predictive biomarkers
 - 2) Publish "white paper(s)" on standards for biomarker identification, biospecimen processing, assay validation
 - 3) Shape the effective integration of biomarkers into clinical trial design for maximum patient benefit



Inclusiveness

"AACR must ensure that women and minority scientists are valued and treated equitably, that advocates and survivors have a voice in our activities, that trainees are offered exciting opportunities to both learn and present exciting science and receive advice on career opportunities, and that through this inclusiveness, the quality of our meetings and publications will remain of the highest quality."



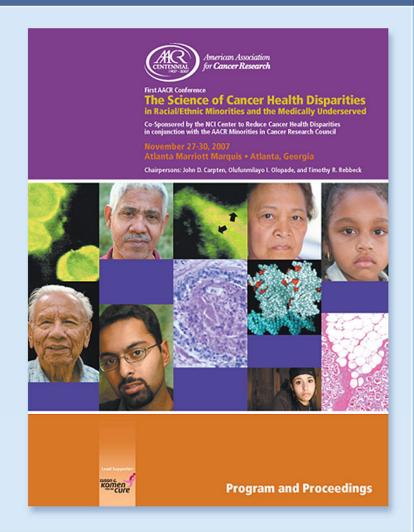
AACR Demographic Councils

- Focus on the professional challenges faced by certain demographic groups in the field
 - Associate Member Council (AMC)
 - Women in Cancer Research Council (WICR)
 - Minorities in Cancer Research Council (MICR)
 - AACR-Industry Roundtable



Science of Cancer Health Disparities Conference

- November 27-30, 2007 Atlanta, GA
- Co-sponsored by the NCI Center to Reduce Cancer Health Disparities
- Keynote Speaker: Francis Collins, M.D., Ph.D.
- Attendance: 558
- 231 Abstracts





The Future

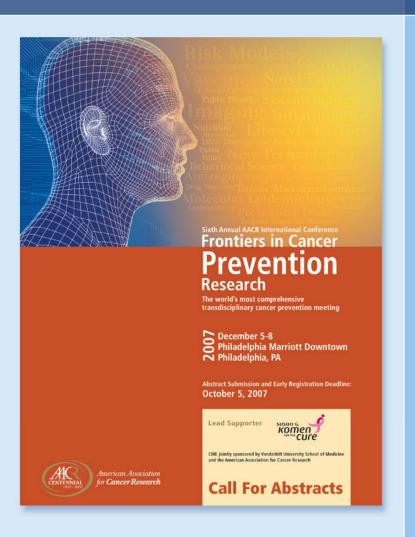
"Intellectuals solve problems; geniuses prevent them."

Albert Einstein



Frontiers in Cancer Prevention Research

- December 5-8, 2007
 Philadelphia, PA
- Andrew J. Dannenberg, M.D., Chairperson
- Attendance: 700
- 302 abstracts





AACR - Advancing Prevention Research

- AACR International Conference Frontiers in Cancer Prevention Research
 - The world's most comprehensive, transdisciplinary cancer prevention meeting with over 600 participants in 2006
- Cancer Epidemiology, Biomarkers & Prevention
 - 403 articles and 2580 pages published in 2006
- Cancer Prevention Task Force
 - Developing a comprehensive cancer prevention strategy
- AACR-Prevent Cancer Foundation Award for Excellence in Cancer Prevention Research



Leslie Bernstein, Ph.D.



AACR Task Force on Cancer Prevention (2008)

- Raymond N. DuBois, M.D., Ph.D., Chairperson, President-Elect, AACR
- Charge: Develop a comprehensive cancer prevention strategy
 - Incorporate basic, translational, population, and clinical sciences
- Collaborate with NCI on a think tank in December 2008 to consider relevant science and public policies
- Write or commission scholarly papers on cancer prevention for publication in scientific journals



AACR Task Force on Smoking and Cancer (2008)

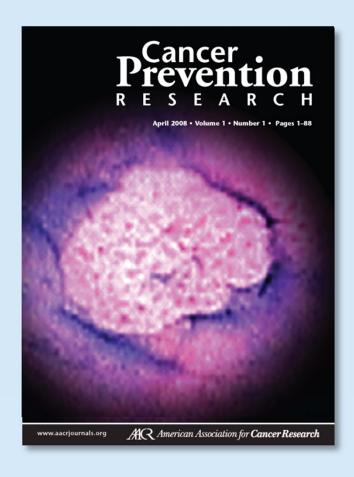
- Chairperson to be determined
- Charge: Chart the course for reducing smoking-related cancer incidence and mortality
- Consider science and policy issues
- Collaborate with other interested organizations
- Publish scientific papers on smoking and cancer for in scientific journals
- Produce White Papers that will potentially guide policies, both nationally and internationally



New AACR Journal in 2008

Cancer Prevention Research

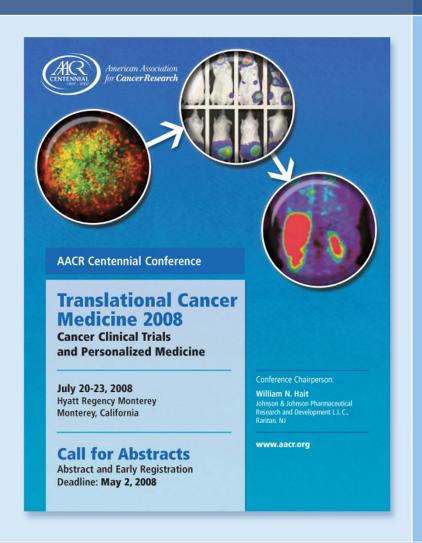
- Introducing a new journal covering all aspects of cancer prevention - from preclinical research to clinical trials.
- Monthly publication beginning in April 2008
- Editor-in-Chief:
 Scott M. Lippman, M.D.





AACR Centennial Conference

- Translational Cancer Medicine 2008
- Second in a series of Centennial Conferences
- Focused on clinical trials and personalized medicine
- July 20-23, 2008
 Monterey, CA
- Abstract Deadline: May 2, 2008



AACR Annual Meeting 2008

Eileen P. White, Ph.D., Chairperson

April 12-16, 2008, San Diego, CA

- Projected Attendance: >17,000
- 5,933 abstracts just received
- Highlights for 2008!!
 - Educational sessions bridging basic science and the clinic
 - Evening Scientific Sessions
 - Expanded Tracks: Drug Development and Clinical Trials
 - Professional Advancement Sessions
 - Career Fair
 - And more.





Summary

- AACR is a dynamic organization that is proud of its partnerships with NCI
- AACR has global reach and aspirations
- AACR is taking on the major scientific and policy issues of the day
- AACR is committed to women, minorities, trainees
- AACR is increasingly focused on translational and prevention research
- AACR is determined to succeed

