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NCI Launches Nanotechnology Alliance

Two panel discussions held yesterday at the National Institutes of Health (NIH)—one for science reporters and one for researchers—marked the launch of the National Cancer Institute (NCI) Alliance for Nanotechnology in Cancer, a $144.3 million, 5-year initiative that brings together the physical, biological, and medical science communities for a common goal: directing nanotechnology for the benefit of cancer patients.

"Today we have the opportunity to renew our commitment to the conquest of cancer," said NCI Director Dr. Andrew C. von Eschenbach. "We're talking about an emerging field of great promise, and an old problem of great devastation that requires new hope."

Representatives from cancer centers, industry, and federal agencies attended the discussion in person and via teleconference and webcast. Dr. Anna Barker, deputy director of NCI's Advanced Technologies and Strategic Partnerships, gave a brief

(continued on page 2)

More information on the NCI Alliance for Nanotechnology in Cancer and the Cancer Nanotechnology Plan is available at http://nano.cancer.gov.

Director's Update

Realizing the Promise of Nanotechnology

Yesterday marked the official launch of the NCI Alliance for Nanotechnology in Cancer, an initiative that I believe could be a transformational event that moves the science of nanotechnology from a promising medical application to a central component in a new era in the diagnosis, monitoring, prevention, and treatment of cancer. When combined with the strides we have made in understanding cancer at the genetic, cellular, and molecular levels, nanotechnology may provide a whole new category of interventions that were not envisioned even 5 to 10 years ago.

The potential uses of nanodevices are staggering. Early research indicates, for instance, that nanosystems may allow for real-time assessments of therapeutic and surgical procedures, enabling clinicians to rapidly determine whether a treatment is working. Other work has shown the ability of targeted nanodevices to elude biological blockades and transport high concentrations of multiple therapeutics directly to cancer cells and the tissues in their immediate microenvironment. In this way, not only are healthy cells spared, but malignant cells and their allies in metastasis are eliminated. Nanotechnology also is making existing technologies more effective. In research presented at the American Association for Cancer Research annual meeting in March, for example, NCI researchers presented results from work in mice that showed that a nanoscale contrast

(continued on page 2)

(Nanotechnology continued from page 1)
overview of its components: funding research through three to five Centers of Cancer Nanotechnology Excellence, as well as individual investigators; fostering multidisciplinary team assembly via interdisciplinary training; and establishing a Nanotechnology Characterization Laboratory at NCI's Frederick, Md., facility.

Dr. Richard Smalley, Nobel laureate, nanotechnology pioneer, and professor at Rice University, described nanotechnology in the context of patients. "The best answer to cancer is never to get it in the first place. But the next best answer is to find it when it first happens and be able to monitor month by month and see if treatment is making it better or worse," he said. "If we can do that, we can eliminate this disease… for the vast majority of humankind."

Dr. Mauro Ferrari, special expert to NCI on nanotechnology and a professor at Ohio State University, described nanoscale devices that are already being used in clinical applications. "If nanotechnology is fully integrated in the cancer enterprise, it can help deliver therapy, reduce side effects, and transform what is, in too many cases, an acute disease into a manageable disease," he said.

Dr. Samuel Wickline, professor at Washington University, relayed his experience in nanotechnology research, citing differences in the "languages" used by physical, biological, and clinical scientists, as well as in regulatory affairs, as barriers that will be overcome by the NCI Nanotech Alliance. Dr. Wickline is an NCI investigator establishing new nanoparticle-based imaging and anti-angiogenesis therapies that are in clinical development.

Dr. Janet Woodcock, acting deputy commissioner for operations of the Food and Drug Administration (FDA), outlined the role that her agency will play in assessing the performance of nanotechnology devices. Continuing the discussion of nanotechnology safety and industrialization was Dr. Vicki Colvin, associate professor of chemistry and director of the Center for Biological and Environmental Nanotechnology at Rice. Dr. Gregory Downing, director of the NCI Office of Technology and Industrial Relations, provided details about the Alliance, including background on how its blueprint—the Cancer Nanotechnology Plan—was developed.

The final panel member, Phillip Bond, under secretary of commerce for technology at the U.S. Department of Commerce, said, "I look forward to meeting the bold challenge that Dr. von Eschenbach has spelled out here to defeat cancer by 2015." He discussed how the National Institute of Standards and Technology (NIST) will work with the Alliance through shared facilities and collaboration on research, training, and program planning. "We salute NCI for their work here," he said, "and we look forward to the many benefits for the next generation." ◆

(Director's Update continued from page 1)
agent vastly enhanced the ability of MRI to detect breast cancer lymph node metastases.

The NCI Alliance for Nanotechnology in Cancer was formed to fulfill this technology's promise. Through this initiative, NCI will support three to five centers of excellence in cancer nanotechnology that will operate as a consortium. The establishment of these centers will be a competitive process during which we will place a premium on the development of crossdisciplinary teams that partner with existing NCI-supported efforts and the private sector.

In addition to the centers of excellence, the nanotechnology platforms for cancer research will enable development of individual projects using the R01 grant mechanism. Development of multidisciplinary teams will train researchers to apply nanotechnology expertise to cancer research and clinical oncology questions. Finally, we are establishing a program that will make nanomaterials and nanoscale devices available to researchers, thus hastening applications with the greatest promise into clinical use.

We are pursuing nanotechnology because of its inherent promise to speed progress toward eliminating the suffering and death due to cancer. As such, we have built into this initiative processes for reducing or eliminating barriers to success. For example, we are collaborating with the FDA to ensure that new nanotech-based interventions are developed in such a way that they can move swiftly through the regulatory process.

NCI has also entered into a memorandum of understanding with NIST, a world leader in nanotechnology, that will provide the framework for training, the formation of interdisciplinary research teams, and the rapid transfer of new interventions from the research lab to the marketplace.

This effort is not a blind leap into unfamiliar territory. On the contrary, NCI is already a leader in conducting and funding nanotechnology research. In addition, NCI was the lead NIH institute in a review of nanotechnology under the Government Performance and Results Act. This initiative is the next logical step for NCI to fulfill the promise of nanotechnology and the investment we have already made in it. Beyond that, however, this effort is just one part of our broader investment in technologies—an investment that I believe will help improve and save many lives, and not just from cancer, but from many diseases. ◆

Dr. Andrew C. von Eschenbach
Director, National Cancer Institute

Cancer Research Highlights

Differences in Long-Term Outcomes after Prostate Cancer Treatments

Five years after treatment with radical prostatectomy or external beam radiotherapy (EBRT) for localized prostate cancer, men continue to live with the treatment's effects on their quality of life, according to NCI scientists. In the September 15 *Journal of the National Cancer Institute*, Dr. Arnold L. Potosky and colleagues from NCI's SEER Program published a study on quality of life outcomes after prostate cancer treatment.

Using survey data collected from more than 1,100 men enrolled in the Prostate Cancer Outcomes Study (PCOS), begun in 1994, researchers analyzed long-term side effects for men treated either with radical prostatectomy or EBRT. They found that at 5 years after baseline diagnosis, overall sexual function, including libido, frequency, and potency, declined to a similar level in both treatment groups. Erectile dysfunction and incontinence were reported more frequently in the radical prostatectomy group at 5 years, while bowel urgency and hemorrhoids were cited more often in the EBRT group.

The authors note that "because there is continuing uncertainty about the superiority of any single treatment strategy for clinically localized prostate cancers…patient preferences for outcomes among competing treatment strategies may be an important factor that drives treatment decisions." Although this study compared surgery with EBRT, the authors identified the need for additional prospective research using population-based samples comparing complications from all available treatments, including radioactive seed implants and hormonal therapy.

Chromosome Regions Linked to Prostate Cancer

An international team of researchers has identified chromosome regions that may be related to prostate cancer susceptibility, according to a paper in the August 18 *Journal of the National Cancer Institute*. Using genome-wide scanning techniques, the NCI-funded study analyzed blood samples from families with a high incidence of prostate cancer.

Previous studies have shown that some genes may increase susceptibility for prostate cancer, but were unable to pinpoint the exact genes or chromosome regions responsible due to small sample sizes, heterogeneity, environment-induced cases, and other factors.

To address these issues, Dr. Jeffrey Trent of the Translational Genomics Research Institute and colleagues conducted a genetic mapping study of 426 families from 4 existing hereditary prostate cancer studies. Dr. Trent's team primarily used nonparametric multipoint linkage analysis, grouping families with similar clinical and demographic backgrounds to limit heterogeneity. They found one chromosome region, 17q22, that was strongly linked to prostate cancer. Through stratified analysis, other regions were shown to possibly be linked.

"The large number of…families in our study will make it possible to test for gene-gene interactions in future linkage analyses," the authors wrote. They added that "results of this large genome-wide scan for prostate cancer susceptibility genes provide a basis for renewed interest, excitement, and confidence in genetic linkage studies of prostate cancer."

CDKN2A Mutation May Increase Risk of Pancreatic Cancer

CDKN2A is the major known melanoma susceptibility gene, but a recent study that looked at prospective risk of cancers other than melanoma found that CDKN2A mutations could also increase the risk of pancreatic cancer. The study, which appeared in the June 2004 *Journal of Medical Genetics*, was conducted by Dr. Alisa Goldstein and colleagues in the Division of Cancer Epidemiology and Genetics at NCI. While most previous studies used family mutation status, this study used individual mutation data in estimating risk.

The authors determined the status of the CDKN2A gene in 253 individual family members from 15 families known to carry hereditary CDKN2A mutations; 117 individuals tested positive for the mutation (carriers) and 136 tested negative for the mutation (noncarriers). The researchers then compared the cancer incidence between the two groups, using the expected incidence rates for the general population as a baseline.

Twelve mutation carriers developed a cancer other than melanoma during the study period, compared with only two cancers among the noncarriers. Pancreatic cancer (four cases among carriers) was the most predominant, and since the expected number within the general population is only

(continued on page 4)

(Research Highlights continued from page 3)
0.1 cases, these data suggest that the risk of developing pancreatic cancer is significantly increased in individuals who carry the CDKN2A mutation. "However," said the authors, "we cannot yet identify any specific genotypes that predispose individuals to pancreatic cancer."

The authors cautioned that the sample size was limited, so studies with more individuals and a broader spectrum of CDKN2A mutations are required. Also, while nonmelanoma cancers were the focus of this study, there were 49 cases of melanoma and 14 melanoma deaths among the carriers during the study period. "Melanoma remains the major contributor to morbidity and mortality in these subjects," noted the authors.

New Therapy Tested for Metastatic Breast Cancer Tumors

Scientists from NCI's Center for Cancer Research have investigated an alternative treatment for metastatic breast cancer patients. This therapy—allogeneic hematopoietic stem-cell transplantation (HSCT)—has been used to treat other blood cancers such as leukemia, but has been viewed with caution because of significant morbidity and mortality rates. However, recent advances in reduced intensity transplant conditioning regimens have been associated with decreased toxicity and raise the possibility of using allogeneic HSCT as a treatment option. In a study reported in the August 16 online *Journal of Clinical Oncology*, researchers investigated whether allogeneic HSCT could serve as a treatment for patients with metastatic breast cancer.

Between May 2000 and April 2003, 16 metastatic breast cancer patients were enrolled in the study. The patients underwent a reduced-intensity transplant conditioning regimen before the allogeneic HSCT treatment. Overall, six partial responses and four minor responses were observed after donor lymphocytes were given after the transplant. For all 16 participants, the median overall survival time was 10.3 months.

While these results suggest that metastatic breast cancer may be treated using allogeneic HSCT, it is not an ideal treatment option in its current form. The authors caution that, "The observations of late tumor regressions in this trial suggest that immune-mediated responses against breast cancer are possible. The clinical question that remains is how to optimally and safely exploit the responses seen with allogeneic cellular therapy for metastatic breast cancer in the context of currently available treatments."

Two Studies Implicate Rho and TrkB Genes in Metastasis

One of the most insidious traits of cancer cells is their ability to metastasize, or break away from, a primary tumor and spread through the entire body. A pair of recent studies now shows some of the mechanisms underlying metastasis—demonstrating how cancer cells can detach from their moorings and then survive when removed from the host tissue.

Most attached cells die when they become dislodged from their matrix, a process known as anoikis. Many cancer cells can survive, however, which allows them to invade foreign tissues. As reported in the August 26 *Nature*, Dr. Daniel S. Peeper and colleagues at the Netherlands Cancer Institute found a gene—TrkB—that renders cells anoikis-resistant. The main role of this gene is to promote

(continued on page 6)

Funding Opportunities

Quick-Trials for Novel Cancer Therapies: Exploratory Grants

PAR-04-155
Application Receipt Dates: Dec. 9, 2004; Apr. 9, Aug. 9, Dec. 9, 2005; Apr. 9, Aug. 9, Dec. 9, 2006; Apr. 9, Aug. 9, Dec. 9, 2007

This PA replaces PAR-03-005.

This Program Announcement (PA) is intended to provide investigators with rapid access to support for pilot, phase I, and phase II cancer clinical trials as well as support for patient monitoring and laboratory studies linked to a cancer clinical trial. The focus of this QUICK-TRIAL PA is on translational research in new agent development to ensure the timely exploitation of new cancer therapeutic approaches including the development of new cancer prevention agents.

This PA will use the NIH exploratory/development (R21) award mechanism. For more information see http://cri.nci.nih.gov/4abst.cfm?initiativeparfa_id=2220. Inquiries: Dr. Roy Wu, wur@ctep.nci.nih.gov

Bioengineering Approaches to Energy Balance and Obesity (SBIR/STTR)

PA-04-156
Application Receipt Dates: Dec. 1, 2004; Apr. 1, Aug. 1, Dec. 1, 2005; Apr. 1, Aug. 1, Dec. 1, 2006; Apr. 1, Aug. 1, 2007

The purpose of this PA is to solicit applications to develop and validate new and innovative bioengineering technology to address clinical problems related to energy balance, intake, and expenditure. Novel sensors, devices, imaging, and other approaches are expected to be developed and evaluated by collaborating engineers, physical scientists, and scientists

(continued on page 6)

Community Update

Consumer Group Names New Members, Shifts Focus

NCI Director Dr. Andrew C. von Eschenbach has reappointed 3 members and intends to appoint 12 new members to the NCI Director's Consumer Liaison Group (DCLG) for 2-, 3-, and 4-year terms. DCLG is a key group that brings together the cancer advocacy community and NCI. The group is shifting its focus to enhance communication between NCI and patient-oriented constituent groups.

Begun in 1997, DCLG—a federally chartered committee—was the first all-consumer advisory board at NIH. DCLG's 15 members advise and recommend a wide variety of issues, programs, and research priorities to the NCI director from the perspective of people whose lives are affected by cancer.

To further its goal of broadening communication, DCLG recently decided to focus on enhancing creative, effective dialogue with the cancer advocacy community. It also will increase its efforts in health disparity and cancer survivorship.

New DCLG Chairman Douglas Ulman, director of survivorship at the Lance Armstrong Foundation and returning DCLG member, says, "We want to bridge the gap between the cancer advocacy community and NCI…so people understand how they can go about speaking with the institute and effecting change."

DCLG members represent a broad spectrum of disease sites. Diseases currently represented include leukemia and lymphoma; and kidney, ovarian, breast, and prostate cancers. Representatives from survivor and community groups and underserved populations also serve as members.

"DCLG has historically been a wonderful group of passionate people and this new group is the most diverse group of cancer advocates that we have ever had, representing all facets of people with cancer," Mr. Ulman adds.

Dr. von Eschenbach said that he expects incoming DCLG members to build on the solid work of prior DCLGs and open even more avenues of contact between NCI and the cancer community. By promoting a productive exchange of information between the institute and its constituents, DCLG efforts will also enhance other NCI initiatives as the institute continues to reach out to the public and make progress in the fight against cancer, he noted.

The new DCLG's first meeting is taking place September 13-15 in Bethesda, Md. In addition to Mr. Ulman, the incoming members, some of whose appointments are pending confirmation, are:

- Margaret L. Anthony, South Carolina Chapter, Yul Brynner Head and Neck Foundation/Hollings Cancer Center/ Medical University of South Carolina
- Vernal H. Branch, Virginia Breast Cancer Foundation/National Breast Cancer Coalition
- William P. Bro,* Kidney Cancer Association
- Lourie Campos,* Community Health Partnership
- Nancy Davenport-Ennis,* Patient Advocate Foundation
- Bobbie de Córdova-Hanks, Bosom Buddies/Women's Center of Jacksonville, Fla.
- Dr. Beverly Laird, American Cancer Society/Susan G. Komen Breast Cancer Foundation
- Dr. Sylvia M. Ramos,* People Living Through Cancer/Intercultural Cancer Council
- Eric Rosenthal, medical journalist/ EvocaTalk® Reports
- Mary Jackson Scroggins,* Ovarian Cancer National Alliance
- Sue Sumpter,* Leukemia and Lymphoma Society/Candlelighters Childhood Cancer Foundation
- Dr. Marisa C. Weiss, breastcancer.org
- Celeste Whitewolf, Native People's Circle of Hope
- Col. (Ret.) James E. Williams, Jr., U.S. Army, Pennsylvania Prostate Cancer Coalition

* Appointment pending

For more information on DCLG, go to http://deainfo.nci.nih.gov/ADVISORY/dclg/dclg.htm. ◆

CCR Grand Rounds

September 21: Dr. David Paul Carbone, Director, Lung Cancer SPORE, and Director, Experimental Therapeutics Program, Vanderbilt-Ingram Cancer Center, will present "Molecular Signatures of Lung Cancer."

October 5: Dr. Judah Folkman, Andrus Professor of Pediatric Surgery and Professor of Cell Biology, Harvard Medical School, and Director, Vascular Biology Program, Children's Hospital Boston, will present "Can the Angiogenic Switch be Prevented in Human Cancer?"

CCR Grand Rounds are held 8:30 to 9:30 a.m. at the NIH campus in Bethesda, Md., in the Clinical Center's Lipsett Auditorium. ◆

(Research Highlights continued from page 4)
the growth and survival of neural cells. When expressed, TrkB can activate a series of enzymes, including the PI3 kinases that prevent a cell from destroying itself through apoptosis.

While Dr. Peeper's findings help explain how detached cancer cells can survive, a study in the August 24 *Proceedings of the National Academy of Sciences* explains how some cancer cells can break off from their host tumors in the first place. Dr. Edward Bonder and colleagues at Rutgers University found that overexpression of the Rho gene can lead to improper orientation of the mitotic spindle during cell division. As a result, some of the newly formed daughter cells may not properly adhere to the cell matrix when cell division is complete, enabling them to subsequently detach.

Taken together, these two studies provide a possible scenario of metastatic initiation. Joint expression of Rho and TrkB could cause some of the rapidly dividing cells in a tumor to slough off and survive long enough to find a new home. ◆

(Funding Opportunities continued from page 4)
from other relevant disciplines with expertise in obesity and nutrition. The goal is to increase the number of useful technologies and tools available to scientists to facilitate their research in energy balance and health.

This PA uses the SBIR and STTR mechanisms, which are set-aside programs.

For more information see http://cri.nci.nih.gov/4abst.cfm?initiativeparfa_id=2241. Inquiries: Dr. Sharon Ross, sr75k@nih.gov; Dr. Connie Dresser, cd34b@nih.gov; Dr. Audie A. Atienza, atienzaa@mail.nih.gov ◆

Featured Clinical Trial

Study of Individuals and Families at High Risk for Melanoma

Name of the Trial
Study of Clinical, Laboratory, and Epidemiologic Characteristics of Individuals and Families at High Risk for Melanoma (NCI-02-C-0211). See the protocol summary at http://cancer.gov/clinicaltrials/NCI-02-C-0211.

Principal Investigators
Dr. Margaret Tucker and Dr. Alisa Goldstein, NCI's Division of Cancer Epidemiology and Genetics.

Dr. Margaret Tucker
Principal Investigator

Why Is This Study Important?
Melanoma is the fifth most common cancer in men and the seventh most common cancer in women. Each year, more than 50,000 Americans are diagnosed with skin melanoma and more than 7,500 die from it. In the last 30 years, the rate of newly diagnosed melanomas has more than tripled in men and more than doubled in women in the United States.

Researchers are studying members of families in which there are multiple cases of melanoma to identify genes and precursor conditions that may increase the likelihood of developing this disease.

"Studying this population has allowed us to identify two major melanoma susceptibility genes," said Dr. Tucker. "We are now actively working with our colleagues in the International Melanoma Genetics Consortium to identify additional melanoma susceptibility genes and to look at susceptibility to the disease resulting from alterations in the genes already identified.

"We know that similar mutations in the major susceptibility genes confer different risks in varying geographic locations. Part of our task now is to evaluate the contribution of both genetic predisposition and environmental exposures to the development of melanoma," Dr. Tucker added.

Who Can Join This Study?
Researchers seek to enroll members of 100 families that may be at high risk for developing melanoma. To be eligible, the family must have at least three living blood relatives ever diagnosed with invasive melanoma. See the full list of eligibility criteria for this study at http://cancer.gov/clinicaltrials/NCI-02-C-0211.

Where Is This Study Taking Place?
The study will be conducted at the NIH Clinical Center in Bethesda, Md.

Who to Contact
Contact the NCI Division of Cancer Epidemiology and Genetics, Genetic Epidemiology Branch referral nurse at 1-800-518-8474, or call the NCI Clinical Studies Support Center (CSSC) at 1-888-NCI-1937. The call is toll free and confidential. ◆

An archive of "Featured Clinical Trial" columns is available at http://cancer.gov/clinicaltrials/ft-all-featured-trials.

Notes

Medicare Cancer Drug Benefit Enrollment Period Expanded

The Centers for Medicare and Medicaid Services (CMS) has announced that it will the expand the enrollment period for the Medicare Replacement Drug Demonstration until 50,000 people are enrolled. Only 4,000 cancer patients have signed up so far for Medicare coverage of their cancer drugs.

Medicare beneficiaries with cancer and other serious diseases who enrolled early in a new large-scale demonstration program are now saving up to 90 percent on the cost of self-administrable drugs that replace drugs previously delivered only in physician offices, Dr. Mark B. McClellan, CMS administrator, announced on Sept. 10.

Beneficiaries with cancer, multiple sclerosis, rheumatoid arthritis, and other serious diseases who applied by Aug. 16 began receiving benefits on Sept. 1. Those individuals who enroll by Sept. 30 will begin receiving benefits by Oct. 18.

The demonstration program is intended to provide savings on certain drugs covered by Medicare Part B for beneficiaries without drug coverage. Until recently, patients were required to have these drugs administered by a physician. Under this demonstration program, "replacement" drugs are available for self-administration, either orally or through self-injection, which saves money and, for many, is more convenient.

Information about the demonstration, including brochures, application forms, and a complete list of covered drugs, may be downloaded from the CMS Web site at http://www.cms.hhs.gov/researchers/demos/drugcoveragedemo.asp. Customer service representatives are available at 1-866-563-5386, or by TTY at 1-866-536-5387, to answer questions about the demonstration and assist beneficiaries in obtaining and completing the application forms.

Scientific Presentations, Survivor Reflection Papers Available Online

Highlights and slide presentations from the 2nd Biennial Cancer Survivorship Research Conference: Pathways to Health after Treatment, are now available on the NCI Office of Cancer Survivorship (OCS) Web site. The June conference was cosponsored by OCS and the American Cancer Society (ACS). Leading researchers presented findings on the most prevalent late effects related to cancer and its treatment and on innovative interventions to reduce these effects on cancer survivors and their families. National priorities in cancer survivorship and data on the projected economic burden of cancer survivorship were also presented.

A series of personal reflection papers written by cancer advocates who participated in the Survivor-Researcher Mentor Program also can be found on the OCS Web site. In collaboration with OCS and ACS, the Lance Armstrong Foundation funded the mentor program to provide a forum for research and advocacy communities to discuss the state of cancer survivorship science. All post-conference materials are available at http://cancercontrol.cancer.gov/ocs/pathways/.

President's Cancer Panel Holds First of Four Meetings

The discovery engine through which scientists are gaining knowledge about the biology and etiology of cancer is accelerating rapidly, but the speed at which this knowledge is being transferred to clinicians, patients, and communities lags behind. It is critically important for the National Cancer Program to focus on moving the results of research into practice in all communities of America. So concluded the President's Cancer Panel on August 30 at the first in a new series of meetings on "Translating Research to Reduce the Burden of Cancer." The meeting was hosted by the University of California, San Francisco Cancer Center. Experts from government, industry, and academia, as well as clinicians, third-party payers, and community representatives, testified about barriers to developing rapidly emerging scientific discoveries into useful interventions that can be delivered into the community. The role of academic medical centers in the discovery-development-delivery continuum was specifically explored.

The Panel will hold three additional meetings on this topic, after which it will develop a report to the President and Congress with recommendations. For more information on this series of meetings, go to http://pcp.cancer.gov.

Evans to Speak on Obesity and Cancer

On September 20 from 4-6 p.m. in the Lipsett Amphitheater in the Clinical Center on the NIH campus, Dr. Ronald M. Evans of the Gene Expression Laboratory at the Salk Institute in La Jolla, Calif., will present "Nuclear Receptors and the Complex Journey to Obesity." NIH Director Dr. Elias Zerhouni will make opening remarks at this presentation, which is part of the NCI/NIH Stars in Nutrition & Cancer Seminar Series. Dr. Evans will discuss the newest and most significant problems arising from obesity and how they relate to cancer and explain how key regulators of energy balance may control aspects of tumor growth.

This free lecture is open to the public and no registration is necessary. For more information go to: http://www3.cancer.gov/prevention/nutrition/index.html. ◆

Featured Meetings

This is a list of selected scientific meetings sponsored by NCI and other organizations. For locations and times and a more complete list of scientific meetings, including NCI's weekly seminars and presentations open to the public, see the NCI Calendar of Scientific Meetings at http://calendar.cancer.gov.

NCI Advisory Committee Upcoming Meetings

Date	Advisory Committee
Sept. 13-15	NCI Director's Consumer Liaison Group
Sept. 14-15	National Cancer Advisory Board
Sept. 27	President's Cancer Panel

Selected Upcoming Meetings of Interest

Date	Meeting	NCI Speakers
Sept. 13-14	First International Peritoneal Mesothelioma Meeting	Dr. Karen H. Antman, Deputy Director, Translational and Clinical Sciences; Dr. Raffit Hassan, Deputy Director, Laboratory of Molecular Biology, Center for Cancer Research; Dr. H. Richard Alexander, Head, Surgical Metabolism Section, Surgery Branch, Center for Cancer Research
Sept. 15	Patient Navigator Workshop	Dr. Harold P. Freeman, Center to Reduce Cancer Health Disparities
Sept. 17-19	Advances in the Multidisciplinary Treatment of Gastrointestinal Neoplasms	Dr. James H. Doroshow, Director, Division of Cancer Treatment and Diagnosis
Sept. 19-21	2004 Annual Convention & Community Health Institute	Dr. Harold P. Freeman, Center to Reduce Cancer Health Disparities

NCI Exhibits

NCI Exhibits are presented at various professional and society meetings. Further information about the NCI Exhibits program can be found at http://exhibits.cancer.gov.

This *NCI Cancer Bulletin* is produced by the National Cancer Institute (NCI). NCI, which was established in 1937, leads a national effort to eliminate the suffering and death due to cancer. Through basic and clinical biomedical research and training, NCI conducts and supports research that will lead to a future in which we can prevent cancer before it starts, identify cancers that do develop at the earliest stage, eliminate cancers through innovative treatment interventions, and biologically control those cancers that we cannot eliminate so they become manageable, chronic diseases.

For more information on cancer, call 1-800-4-CANCER or visit http://cancer.gov.

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