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Eliminating the Suffering and Death Due to Cancer

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COX-2 Inhibitor Potent at Reducing Risk of Colorectal Polyps

Daily use of the COX-2 inhibitor celecoxib (Celebrex) significantly reduces the risk of precancerous polyps reoccurring in the colon or rectum, two research groups reported yesterday at the American Association for Cancer Research (AACR) annual meeting in Washington, D.C.

The results come from the Adenoma Prevention with Celecoxib (APC) Trial, which was jointly sponsored by NCI and Pfizer, and the Prevention of Colorectal Sporadic Adenomatous Polyps (PreSAP) with Celecoxib Trial, solely sponsored by Pfizer. The trials had more than 2,000 and 1,500 participants, respectively; all participants previously had colorectal polyps, called adenomas, removed.

In the APC trial, patients taking either of two doses of celecoxib twice a day for approximately 3 years had fewer new adenomas and fewer new advanced adenomas—those most likely to become malignant—than those on placebo. Participants on the 400 mg/day dose had greater reductions (45 percent fewer new adenomas and 66 percent fewer advanced adenomas) than those on the 200 mg/day dose (33 percent and 57 percent, respectively). *(continued on page 2)*

Director's Update

Guest Update by Dr. John E. Niederhuber

Embracing Opportunities and Overcoming Challenges

There was palpable enthusiasm this week at the AACR annual meeting in Washington, D.C., and it was warranted, given the excellent quality of science being presented and the many exciting research opportunities emerging. The meeting comes at a time of significant leadership change at NCI. With the nomination of Dr. von Eschenbach to be FDA commissioner, there is the expected speculation and concern about future NCI leadership. A dip in NCI's budget adds worries that progress will be dampened. These are valid concerns that I addressed during my remarks on April 2 at AACR.

I'd like to congratulate Andy on the truly remarkable job he has done these past 4 years. The dedication and fervor that he brought to the director's position will be felt throughout NCI and the cancer community for years to come. The transition of NCI leadership and operational control following Andy's appointment as Acting FDA Commissioner has been achieved through both formal delegations of authority and day-to-day adjustments on the part of NCI leadership and staff and the broader community. The smoothness of this transition reflects *(continued on page 2)*

(COX-2 continued from page 1)
In addition, explained the study's principal investigator, Dr. Monica Bertagnolli, an associate professor of surgery at Harvard University, when those who took celecoxib developed new adenomas, they were, on average, fewer in number and smaller in size compared with participants on placebo.

Taken together with the results from earlier animal model and epidemiological studies, the two trials' results prove that COX-2 "is a valid target for trying to prevent the occurrence of colorectal tumors," said Dr. Bertagnolli.

PreSAP participants were randomized to placebo or a single 400 mg dose of celecoxib daily for 3 years. The results were very similar to those of APC, including a 36-percent reduction in the development of new adenomas and a 51-percent reduction in the formation of advanced adenomas.

Dr. Nadir Arber, of the Tel Aviv Sourasky Medical Center in Israel and co-lead investigator for PreSAP, said the trials provided proof of concept that chemoprevention in people at high risk of colorectal cancer is possible.

The case for prevention with celecoxib, however, has been questioned because of data from two clinical trials that showed an increased risk of cardiac events in patients taking COX-2 inhibitors, including celecoxib.

In fact, use of celecoxib among APC participants was halted in December 2004 after an analysis by the trial's Data Safety and Monitoring Board showed a 2.5-fold increased risk of major fatal or nonfatal cardiac events in those taking the drug compared with those on placebo.

Initially, when preliminary results from the PreSAP trial were presented in December 2004, no increased risk of cardiac events was seen. The data presented yesterday, however, did reveal an increased risk.

Overall in the APC trial, 3.4 percent of patients on the 400 mg celecoxib dose had a serious cardiac event (defined as heart attack, stroke, heart failure, or cardiac-related death) versus 2.5 percent on the low dose and 1 percent on placebo. It appears, though, that a past history of cardiac events may increase the risk of a future event once on the drug. A closer look at the APC data revealed that nearly 9 percent of patients taking celecoxib who had a history of cardiac events prior to enrolling in the trial experienced a serious cardiac event during the trial, compared with only 2 percent of those on celecoxib without a history of cardiac events. The rates for those on placebo were 3 percent and 0.7 percent, respectively.

Celecoxib is being tested in a number of cancer prevention trials, based on both animal model and epidemiological studies that showed regular use of nonselective COX inhibitors, such as aspirin or ibuprofen, significantly reduced the incidence of certain precancerous lesions, as well as cancer and cancer-related mortality. It's also being tested in cancer treatment trials, including those for pancreatic, breast, and ovarian cancers, among other solid tumors.

The primary indication for COX-2 inhibitors is for pain relief in patients with osteoarthritis and rheumatoid arthritis. Celecoxib, which has also been approved to help reduce the number of adenomas in those with a familial disorder called FAP that predisposes patients to colorectal cancer, is the only COX-2 inhibitor still available on the U.S. market. Both rofecoxib (Vioxx) and valdecoxib (Bextra) have been withdrawn because of their association with increased cardiac events.

Even with the strong results from these two trials, whether celecoxib should be considered for colorectal cancer chemoprevention is still unclear, said Dr. Ernie Hawk, director of the NCI Office of Centers, Training, and Resources, and a senior investigator on the APC trial. That uncertainty is due in large part to the fact that neither trial was designed or powered to definitely assess cardiac event risk.

"I don't think we can recommend it today for any subset of patients," he said. Future studies need to be done that "tilt the risk-benefit ratio more in the favor of benefit." ◆

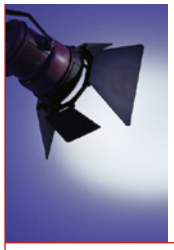
By Carmen Phillips

(Director's Update continued from page 1)

our shared commitment to the urgency of our mission, and I appreciate the tremendous support you have given to NCI and to me.

At the AACR meeting, I saw many colleagues with whom I have worked during my 30-year career as a researcher and clinician. As I told many of them, I have seen the strength of the institute's leadership and their commitment to the tremendous national research enterprise of which NCI is an integral part. That leadership role, and that interaction with and outreach to the cancer community, will not change.

There is, of course, much more that needs to be and will be done. How we approach our goals will be influenced by the institute's financial resources, which for the near future essentially are expected to be flat or slightly decreased. It's important to note that the budget *(continued on page 5)*



Spotlight

In Cancer Cells, Silenced Genes Reveal Vulnerabilities

The key to developing a targeted cancer therapy is having the right target, such as a protein found only in tumor cells that can be inhibited by drugs. But good targets are hard to find, and researchers are increasingly looking for them in new ways.

Last week, for instance, a team from NCI reported a novel way to find genes that a cancer cell needs to survive. The genes might not contain mutations or other alterations associated with cancer, but inhibiting them could potentially help control the disease.

The method is a genetic screen that uses RNA interference (RNAi)—a technology for silencing genes—to identify genes that, when silenced, cause cancer cells to die or stop dividing.

In a demonstration of the strategy, reported online in *Nature*, the researchers identified three genes that could be potential therapeutic targets for a type of lymphoma. None of the genes had previously been linked to cancer.

"This genetic screen could lead to a new realm of therapeutic targets beyond the small set of genes we have already identified," says lead researcher Dr. Louis Staudt of NCI's Center for Cancer Research (CCR).

The traditional way of searching for cancer drug targets is to identify genes that are consistently mutated or deregulated in cancer cells. This has produced, for instance, the leukemia drug imatinib (Gleevec) and the breast cancer drug trastuzumab (Herceptin).

But only so many genes are consistently altered in cancer cells. The genetic screen creates a new class of potential targets: genes involved in a cellular process, or pathway, that is necessary for a cancer cell's survival.

"We call it an Achilles heel genetic screen because it identifies the pathways in the cancer cell that are most vulnerable to attack," Dr. Staudt says, noting that it is technically called a loss-of-function RNAi genetic screen.

Previous genetic screens involving RNAi technology have identified genes that, when silenced, spur the growth of cancer cells. This method, in contrast, identifies genes that cancer cells cannot live without.

"Large-scale RNAi screens are not particularly new, but what Dr. Staudt has now shown is that you can use them for what we call negative selection," says Dr. René Bernards of the Netherlands Cancer Institute, who has developed RNAi genetic screens for cancer.

Negative selection refers to identifying potential targets in cells that have gone missing from a population of cultured cells.

"The study is an important proof of concept, and we're going to hear more about this in the future," adds Dr. Bernards.

The technological advance made by Dr. Staudt's team was an on/off switch that controls the silencing of genes in living cells. Until now, delivering certain types of short hairpin interfering RNA molecules, or shRNAs, into cells could kill the cells immediately.

In their demonstration experiment, the researchers silenced 2,500 genes in 2 types of diffuse large B cell lymphoma cells—activated B cell-like (ABC) and germinal center B cell-like (GCB).

"Our hypothesis was that we should find different genes that are required for the proliferation or survival of the lymphomas because these are very different diseases clinically," says Dr. Vu N. Ngo, also of CCR, who led the experiment.

The first step was to grow cultures of lymphoma cells. Each cell then received a modified virus containing genetic code for producing a single shRNA. Three weeks later, the researchers added drugs to the cell cultures to trigger the production of shRNAs, thereby silencing one gene per cell.

Next, the researchers determined which cells and genes had been eliminated from the populations using microarray technology and molecular tags attached to the shRNAs.

Further research showed that three of the missing genes—*CARD11*, *MALT1* and *BCL10*—are required to turn on a pathway that is continuously activated in patients with the ABC type of lymphoma but not the GCB type.

"The genetic screen revealed a new mechanism in this lymphoma that we didn't know about before," says Dr. Staudt, noting that genetic screens often yield surprises.

His laboratory intends to screen cell cultures representing all types of

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Cancer Research Highlights

Gene Profiling Plus Bronchoscopy Improves Lung Cancer Screening

Researchers have improved the detection rate for lung cancer in smokers and former smokers suspected of having the disease by profiling gene activity in cells that were obtained from the airway during fiberoptic bronchoscopies. Dr. Avrum Spira of the Boston University School of Medicine described the experimental strategy and findings from their research at the AACR annual meeting.

A bronchoscopy is often used as the first tool for diagnosing the disease, but the test is accurate in only about half the cases. By adding the gene profiling to the bronchoscopy, the researchers detected lung cancer accurately in more than 90 percent of cases in their study population.

The study included individuals who were scheduled to have a bronchoscopy to screen for the disease, but, in addition, the researchers profiled the activity of 80 genes in the airway cells collected during the bronchoscopies. In this procedure, a tube the size of a pencil is passed into the lungs to collect cells from the walls of the airways. The researchers noted that the gene signature was better than bronchoscopy at detecting the disease in its early stages, when treatment is likely to be most effective.

In the United States, an estimated 75,000 cases of lung cancer are not detected as early as they potentially could be because they are missed by bronchoscopies, according to Dr. Spira. To address this problem, his team identified the set of 80 genes that can be used to accurately distinguish smokers and former smokers who have the disease from those who do not. The gene signature is not yet ready for use in the clinic, but Dr. Spira expects to have a refined version ready within the next 2 years.

Long-Term Smoking Cessation May Repair Lung Damage

Long-term smoking cessation increases the blood levels of an important anti-inflammatory protein CC10 that several studies have suggested may play a role in combating the development of lung cancer, NCI researchers reported at the AACR annual meeting. The findings, says the study's leader, Dr. Jiping Chen, a cancer prevention fellow at NCI, provides some important insights about smoking cessation's impact at the molecular level.

"This is good news for former smokers," Dr. Chen says. "It provides more evidence that quitting smoking can undo some of the damage to the lung resulting from tobacco exposure."

The researchers measured levels of CC10 in 81 current and 23 former smokers with precancerous lesions called bronchial dysplasia. All of the participants had been part of a lung cancer chemoprevention trial. Levels of CC10 were measured in blood and bronchoalveolar lavage samples, which are collected by injecting sterile saline into the lungs with a fiberoptic scope and then removing samples of the resulting fluid.

CC10 is known to protect the bronchial lining from oxidative and inflammatory insults. Several studies have shown that its expression is decreased in smokers; laboratory and animal model studies conducted at NCI also have shown that CC10 is downregulated in the earliest stages of cancer development, and that increasing its expression can slow tumor development.

In this study, CC10 levels in the blood samples of former smokers were statistically significantly higher than in current smokers; CC10 levels were also higher in the lavage samples of former smokers, but the difference did not achieve statistical significance. The average length of smoking cessation in the former-smokers group was 7 years.

Further studies are needed to elucidate CC10's role in lung cancer, Dr. Chen cautions, such as a large cohort study that could "prospectively determine whether CC10 is associated with lung cancer incidence."

Rituximab Shows Promise for Graft-Versus-Host Disease

A phase I-II study of rituximab, an anti-B-cell monoclonal antibody, among patients who suffer from chronic graft-versus-host disease (GVHD), a deadly posttransplant autoimmune illness, reduced symptoms in 70 percent of participants after 1 year of follow-up. Of the 21 patients who participated, 2 lost all signs of the disease. The study results appeared online in *Blood* on March 21.

GVHD occurs frequently in patients

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(Highlights continued from page 4)
who receive donor tissues, such as leukemia patients who receive bone marrow transplants. Corticosteroid therapy and calcineurin inhibitors can be used to treat it, but they are toxic, not always effective, and had already failed among participants in this study.

The trial regimen included 4 initial weeks of rituximab at a dose of 375 mg/m^2 per week, with subsequent courses offered to those who did not initially respond. When symptoms were limited to the skin and musculoskeletal system, rituximab showed the greatest result—the median body surface area affected dropped from 42 to 20 percent in sclerodermatous cutaneous GVHD cases, and from 19.5 to 3 percent in lichenoid cutaneous GVHD cases. Patients with rheumatologic symptoms saw their pain and fatigue fall significantly after two treatment cycles and continue to decrease thereafter.

Until recently, it was thought that GVHD is mediated by T cells in the donor tissue, but the authors note that these results support their previous work, indicating B cells may also be involved. "The use of monoclonal anti-B-cell therapy should be tested as a prophylactic and initial treatment strategy," they write.

Smoking, Drinking, and Gender Linked to Colorectal Cancer

The risk of developing advanced colorectal cancer at a younger age is greater among men, and also among people who smoke or drink, according to a retrospective American population study published in the March 27 *Archives of Internal Medicine*. The findings could influence strategies for screening to detect the second most lethal cancer.

The researchers used self-reported data from an HMO database to classify 166,172 colorectal cancer patients according to smoking and drinking history (former, current, or never). Current users of both substances were an average of 7.8 years younger when diagnosed than those who had never used either, with the effect more pronounced among men. Current smokers who never drank fared slightly better; the age at diagnosis was reduced by 6.3 years in women, compared with 3.7 years in men. Among all patients, drinking raised risk by 19 percent, smoking by 16 percent.

Screening for colorectal cancer is especially important because detectable symptoms usually mean advanced disease and poor prognosis. Screening is currently recommended at age 50, but these findings suggest that those who smoke and drink would benefit from earlier screening, wrote study leader Dr. Anna L. Zisman and colleagues from Northwestern University. ◆

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situation, while concerning, is not a new phenomenon. Budgets are subject to cycles, and NCI has seen similar budget situations in the early 1980s and 1990s.

We are taking this current cycle in stride; the heads of each NCI division and center have done an incredible job of setting priorities and making very tough funding decisions. Our fiscal priorities are clear: funding first-time investigators and maintaining the R01 payline and the number of grants funded. As I travel and talk to young investigators, I've heard time and again that having an NIH grant, even if it is significantly reduced, maintains their status in their institutions and gives them the standing needed when seeking funding from other sources.

For this fiscal year, we also are increasing the resources that we set aside each year for competing research project grants (RPGs) to fund exceptions to the regular payline—typically applications of high programmatic interest. In past years, this amount has been around 10 percent of competing RPG resources; for 2006, we are holding approximately 15 percent in reserve. In addition, through our star R01 program, the payline for first-time grantees will continue to be set at levels significantly above the average R01 grant.

For the research community, the evolving budgetary environment means we must make our strongest arguments about the importance of our scientific accomplishments. It also means we must continue efforts to leverage our resources, partnering with other government agencies and with other private and public sector entities. I believe this can best be accomplished through integration within our portfolio, large-scale integrative cancer biology programs, and continued growth of multidisciplinary team science.

No one can deny that significant challenges lie ahead. Likewise, no one can deny that there also are grand opportunities—the most potentially rewarding opportunities ever. During this time, NCI's most important job is one of leadership. We must become a true resource for the scientific community.

In short, our job during this period is to help the community rise to challenges and embrace new opportunities. There is no way one could attend a conference like AACR and not come away thinking that both can be done. ◆

(Spotlight continued from page 3)

lymphomas and eventually all types of human cancers.

The method, he suggests, could be used to create a new classification of cancers based not on the type of cancer, but on which pathways inside a cancer cell are critically required for its proliferation or survival.

The results illustrate the concept that some genetic mutations are toxic only when they occur with other mutations or in the absence of gene activity. Knowing which interactions are toxic in specific cancers could greatly help in developing therapies.

An article about how discovering context-specific genetic interactions could lead to new cancer drugs was published in *Science* in 1997 by Drs. Leland Hartwell and Stephen Friend of the Fred Hutchinson Cancer Research Center.

"This was long before any tools had been developed to detect these genetic interactions," notes Dr. Bernards.

Now that the tools are available, they will be used, he says, because there are not enough good drug targets out there to treat the major forms of cancer in the next decade.

"I am absolutely convinced that the next Gleevec will come out of a genetic screen like this one," Dr. Bernards adds. ◆

AACR Comes to Washington, D.C.

The 97th Annual Meeting of the American Association for Cancer Research (AACR) is currently being held April 1–5, 2006, in Washington, D.C. For more information, including NCI highlights, go to http://www.cancer.gov/aacr2006. ◆

Funding Opportunities

Community Participation in Research

Announcement Number: PA-06-247

Letter of Intent Receipt Date: April 17, 2007.

Application Receipt Date: May 17, 2007.

This is a renewal of PAR-05-026 and will use the R21 award mechanism. For more information, see http://cri.nci.nih.gov/4abst.cfm?initiativeparfa_id=3386. Inquiries: Dr. Sabra Woolley—woolleys@mail.nih.gov

Solicitation of Assays for High-Throughput Screening (HTS) in the Molecular Libraries Screening Centers Network

Announcement Number: PAR-06-259

Letter of Intent Receipt Dates: April 20, Aug. 16, and Dec. 20, 2006; April 20 and Aug. 16, 2007.

Application Receipt Dates: May 18 and Sep. 14, 2006; Jan. 18, May 18, and Sep. 14, 2007.

This is a renewal of PAR-05-147 and will use the X01 award mechanism. For more information, see http://cri.nci.nih.gov/4abst.cfm?initiativeparfa_id=3394. Inquiries: Dr. Ingrid Li—ili1@mail.nih.gov

Centers for AIDS Research: D-CFAR, CFAR

Announcement Number: PAR-06-291

Letter of Intent Receipt Dates: May 22, 2006; May 22, 2007.

Application Receipt Dates: June 22, 2006; June 22, 2007.

This is a renewal of PAR-03-089 and will use the P30 award mechanism. For more information, see http://cri.nci.nih.gov/4abst.cfm?initiativeparfa_id=3403. Inquiries: Dr. Kishor Batia—bhatiak@mail.nih.gov

NCI Mentored Career Development Award to Promote Diversity

Announcement Number: PAR-06-220

New Application Receipt Dates: June 1 and Oct. 1, 2006; Feb. 1, June 1, and Oct. 1, 2007; Feb. 1, June 1, and Oct. 1, 2008; Feb. 1, 2009.

This is a renewal of PAR-03-016 and will use the K01 award mechanism. For more information, see http://cri.nci.nih.gov/4abst.cfm?initiativeparfa_id=3363. Inquiries: Belinda Locke—lockeb@mail.nih.gov

NCI Mentored Career Development Award to Promote Diversity

Announcement Number: PAR-06-221

New Application Receipt Dates: June 1 and Oct. 1, 2006; Feb. 1, June 1, and Oct. 1, 2007; Feb. 1, June 1, and Oct. 1, 2008; Feb. 1, 2009.

This is a renewal of PAR-03-002 and will use the K08 award mechanism. For more information, see http://cri.nci.nih.gov/4abst.cfm?initiativeparfa_id=3364. Inquiries: Belinda Locke—lockeb@mail.nih.gov

Understanding and Preventing Brain Tumor Dispersal

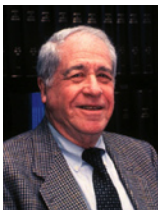
Announcement Number: PAS-06-201

New Application Receipt Dates: June 1 and Oct. 1, 2006; Feb. 1 and June 1, 2007.

This is a renewal of PAS-04-079 and will use the R21 award mechanism. For more information, see http://cri.nci.nih.gov/4abst.cfm?initiativeparfa_id=3359. Inquiries: Dr. Claudio Dansky Ullmann—danskyullc@mail.nih.gov ◆

Notes

Fisher Receives AACR Lifetime Achievement Award



Dr. Bernard Fisher, the renowned clinical cancer researcher whose career has focused on improving survival and quality of life for women with breast cancer, received the AACR Award for Lifetime Achievement in Cancer Research on April 2 at AACR's 97th Annual Meeting in Washington, D.C.

Dr. Fisher's early work on tumor metastasis paved the way for later hypotheses about the spread of breast cancer, and his systematic clinical trials changed the way physicians manage patients with this disease. Dr. Fisher and his colleagues also were instrumental in defining the effectiveness of tamoxifen in treating breast cancer as a systemic disease.

"Dr. Fisher's important work not only helped those who fight the disease, but has also helped prevent breast cancer in women who are at high risk," said Dr. Margaret Foti, chief executive officer of AACR.

Dr. Fisher is a 1943 graduate of the University of Pittsburgh School of Medicine, where he has spent the majority of his career.

Enhanced Cancer Research Portfolio Now Online

The Cancer Research Portfolio (CRP), a comprehensive database of NCI-funded projects and cancer research grants funded by participating NIH institutes and centers (ICs), has been updated. In addition to a more user-friendly interface, the enhanced CRP provides a one-stop access to information on extramural research grant awards, contracts, intramural studies, clinical trials, research resources, and funding opportunities.

Users have the option to perform an advanced search of the portfolio and sort results based on the following categories: disease site, special interest category, common scientific outline codes, funding year, principle investigator, awardee institution, funding mechanism, project title, and state. Free-text searching is also available.

The updated CRP is more robust with the inclusion of cancer-related research from four other ICs at NIH and direct access to data in the International Cancer Research Portfolio. For additional information on the CRP, go to http://research-portfolio.cancer.gov.

Postdocs Rank NCI One of the Best Places to Work

NCI was again ranked in the top 15 as the 13th best North American work site for postdoctoral researchers, according to the annual Best Places to Work survey by *The Scientist*. The features of the top-ranking institutions included a collaborative environment, intellectual stimulation, quality research facilities, and flexibility in designing and conducting research projects. The J. David Gladstone Institutes and the Fred Hutchinson Cancer Research Center received first- and second-place honors, respectively.

Survey results, based on responses received from 2,983 nontenured life scientists from the United States, Canada, and Western Europe, are available in the March issue of *The Scientist.*

NCI Spring Research Festival Slated for May

NCI-Frederick, in partnership with the U.S. Army Medical Research and Materiel Command at Ft. Detrick, have announced the 10th annual NCI-Frederick/Ft. Detrick Spring Research Festival, to be held May 17–18 on the campus in Frederick, Md. The festival will include scientific poster sessions, a health and safety exposition, educational information, scientific exhibits, and commercial exhibits of scientific equipment and technologies. For more information, visit http://web.ncifcrf.gov/events/springfest/default.asp.

NIH Budget Hearings Rescheduled for April

The House of Representatives hearing on the NIH budget has been rescheduled for April 6. The Senate hearing has also been postponed; no new date has been set. ◆

CCR Grand Rounds

April 11: Dr. Jeffrey N. Strathern, Chief, Gene Regulation and Chromosome Biology Laboratory; Deputy Director, CCR-Frederick, NCI. "Palindromic Gene Amplifications—A New Model for Their Origin."

April 18: Dr. Samuel A. Wells, Jr., Professor of Surgery, Duke University School of Medicine. "Targeted Therapy for Thyroid 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 Amphitheater. ◆

Community Update

Asian-Language Cancer Online Information Resource Is Launched

About 4 million Asian Americans and Pacific Islanders have limited English proficiency, a disadvantage when it comes to accessing health information and communicating with health care providers. To help address the problem, the Asian American Network for Cancer Awareness, Research and Training (AANCART) and the American Cancer Society (ACS) have launched the Asian and Pacific Islander Cancer Education Materials (APICEM) Web tool, a searchable online database of Asian-language cancer materials.

Funded by NCI, the new Web site offers health care providers a one-stop source for cancer education materials for their Asian and Pacific Islander patients. Providers can search for materials by specific Asian language, cancer site, or topic. All materials catalogued on the site have been screened by expert reviewers for medical accuracy, linguistic appropriateness, and cultural relevance.

APICEM may be accessed from the ACS Web site at http://www.cancer.org/apicem or the AANCART Web site at http://www.aancart.org/apicem. Materials are available in Khmer, Chamorro, Chinese, Hawaiian, Hmong, Ilokano, Korean, Samoan, Tagalog, Tongan, and Vietnamese. English-language materials that have been culturally tailored for Native Hawaiian populations are also indexed. Information in other languages and on additional topics will be added as more materials are screened and approved.

"NCI is very proud of this historic database, which will improve the transfer of critical cancer information to Asians and Pacific Islanders," said Dr. Mark Clanton, NCI deputy director and deputy director for cancer care delivery systems. "Advances such as this bring us closer to eliminating suffering and death due to cancer among Asians and Pacific Islanders."

AANCART, which is part of NCI's Community Networks Program disparities-reduction initiative, brings together researchers and community advocates from Sacramento, Los Angeles, San Francisco, Honolulu, Seattle, and Boston in a coordinated effort to reduce cancer among Asian Americans and Pacific Islanders. AANCART is headquartered at the University of California, Davis, near Sacramento.

"This new Web resource was developed in response to the need we heard from the community and NCI for a single point of access for authoritative cancer education materials for lay audiences," explained AANCART Principal Investigator Dr. Moon S. Chen, Jr., associate director for cancer disparities and research at the UC Davis Cancer Center.

Sally West Brooks, chair of the ACS national board of directors, added, "Until now, health care providers may have had to go to several different organizations to find appropriate materials for their patients. Some of the materials have been available on Web sites, including our own. Others are on sites that may be difficult to find or not easily searchable. This new site provides a single point of access for all of the materials, and will permit a health care provider to search for patient information by language, type of cancer, cancer-related topic, or organization. As we continue to invite organizations that meet our criteria to contribute materials, the site will become increasingly robust and powerful." ◆

Featured Meetings and Events

A calendar of scientific meetings and events sponsored by the National Institutes of Health (NIH) is available at http://calendar.nih.gov. ◆

The *NCI Cancer Bulletin* is produced by the National Cancer Institute (NCI). NCI, which was established in 1937, leads the national effort to eliminate the suffering and death due to cancer. Through basic, clinical, and population-based biomedical research and training, NCI conducts and supports research that will lead to a future in which we can identify the environmental and genetic causes of cancer, 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://www.cancer.gov.

NCI Cancer Bulletin staff can be reached at ncicancerbulletin@mail.nih.gov.