NATIONAL CANCER INSTITUTE

NCI Cancer Bulletin

Eliminating the Suffering and Death Due to Cancer

October 3, 2006
Volume 3 | Number 38

In this issue:

A Publication of the
National Cancer Institute
U.S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES
National Institutes of Health
NIH Publication No. 05-5498

http://www.cancer.gov

Immune Response Linked to Colon Cancer Survival

French researchers have found an association between how well the body responds to colon tumors and survival among more than 400 patients with the disease. They suggest that analyzing tumors for the presence of certain immune cells could yield valuable prognostic information for patients.

The results support the theory that the immune system may influence the behavior of tumors. In recent years, studies of ovarian cancer and follicular lymphoma have suggested that the presence or absence of certain immune cells in tumors can be used to predict the survival of patients with these diseases.

The new study expands this research to colorectal cancer. Like the others, it focuses on the presence of T cells in tumors; these immune cells react to specific threats to the body.

"Our data reveal that the immune reaction at the tumor site determines the cancer's evolution and clinical outcome regardless of the local extent and spread of the tumor," says co-lead investigator Dr. Jerome Galon of the French National Institute of Health and Medical Research, or INSERM.

(continued on page 2)

Director's Update

Guest Update by Dr. Robert H. Wiltrout

CEI: Advancing Immunology and Immunotherapies for Cancer

Dr. Robert H. Wiltrout, Director, Center for Cancer Research

The Center of Excellence in Immunology (CEI) is one of five Centers of Excellence in the NCI intramural research program (IRP). CEI's mission is to foster discovery, development, and delivery of novel immunologic approaches to prevent and treat cancer and cancer-associated viral diseases. CEI comprises a 19-member steering committee and a faculty of approximately 100 principal investigators and staff scientists from more than 20 different Center for Cancer Research (CCR) laboratories, programs, and branches. CEI faculty includes two members of the National Academy of Sciences and five members of the Institute of Medicine of the National Academy of Sciences.

This multidisciplinary organization represents a means to create a critical mass of basic, clinical, and transla-

(continued on page 2)

(Immune Response continued from page 1)
The study included 415 colorectal tumors from patients with known medical histories. The researchers developed information on the type, density, and location of T cells at the tumor sites and compared the predictive value of these data with information on a tumor's size and the extent to which it had spread to other tissues.

The density of T cells within a tumor was, in this population, a better predictor of patient survival than the tumor size and spread, which are typically used to develop prognoses, the researchers report in the September 29 *Science*.

Once the colorectal tumors become clinically detectable, the adaptive immune response may play a role in preventing tumor recurrence, the researchers say. "This suggests that the time to recurrence and overall survival time are governed in large part by the state of the local adaptive immune response," they write in *Science*.

In their analysis, a strong immune response was associated with a favorable prognosis regardless of the cancer size and spread; conversely, a weak immune response was associated with a very poor prognosis, even in patients whose tumors had not invaded other tissues.

"The recurrence of cancer may have little to do with the tumor itself—or at least not with tumor size and spread," notes Dr. Galon. "Rather, poor prognosis could arise from a weak immune reaction to cancer."

Patients whose tumors had high densities of certain T cells had a 5-year survival rate of 73 percent, compared with 30 percent for patients with low densities of T cells in tumor regions. In patients with earlier stage tumors, high densities of T cells were associated with a 79-percent chance of survival after 5 years, while patients with low densities had a 33-percent chance of survival.

The experimental methods used in the study are not ready for clinical use. But if the results are confirmed in larger studies, in theory the strategy could be used to identify patients who, because of their immune responses, are at high risk for relapse and may benefit from additional treatment.

"The immune system is the most important parameter to prevent relapse and metastasis and to prolong survival in colorectal cancer," notes Dr. Galon. The study was co-led by Dr. Franck Pagès, an immunologist at the European Georges Pompidou Hospital. ◆

By Edward R. Winstead

(Director's Update continued from page 1)
tional scientists, with the objectives of quickly defining new areas of opportunity and more rapidly capitalizing on the novel immunology- and immunotherapy-related work being done in NCI's CCR to accelerate our scientific advances.

An important goal of CEI is to create opportunities for immunologists in both the intramural and extramural communities to exchange information and to facilitate collaborations. Consequently, CEI has initiated an annual series of meetings on cancer-related immunology research. Last week, more than 700 scientists attended the second meeting in this series, "Frontiers in Basic Immunology," held on the NIH campus. All of the speakers were outstanding scientists representing the innovative approaches to immunology research from within NCI or academic centers around the nation.

CEI scientists have made critical contributions to basic, translational, and clinical immunology. This includes identification of novel molecules and molecular pathways important for the normal development and function of lymphoid cells, as well as leadership in the field of cytokines, including identifying new cytokines, defining their biological activities, detailing their mechanisms of action, and translating this information into new immunotherapies for cancer and other diseases.

The bench-to-bedside progression of interleukin-2 (IL-2) is one outstanding illustration. IL-2 and components of its receptor were discovered by NCI researchers Drs. Frank Ruscetti and Thomas Waldmann, respectively. Work from Dr. Steve Rosenberg's lab established the value of this cytokine in the treatment of advanced kidney cancer and melanoma, while Dr. Waldmann's group demonstrated that antibodies blocking the alpha chain of the IL-2 receptor are useful in treating T cell leukemia, autoimmune disease, and graft-versus-host disease. Dr. Waldmann is currently engaged in efforts to bring IL-15, a cytokine codiscovered by his group, to the clinic.

Other significant advances toward prevention and treatment of cancer from CEI faculty include development of an HPV vaccine that could save up to 150,000 lives a year; a recombinant immunotoxin that has proved very effective against refractory hairy cell leukemia, and a cell-based therapy for the treatment of refractory metastatic melanoma that has resulted in improvement in 51 percent of patients involved in clinical trials. In addition, Dr. Rosenberg and colleagues recently demonstrated the potential for using a gene-therapy approach to re-educate a cancer patient's immune system to treat refractory, metastatic melanoma. The unique blending of expertise in basic, translational, and clinical research, combined with the ability of NCI's
(continued on page 4)

Cancer Research Highlights

Menopausal Hormone Therapy Linked to Ovarian Cancer Risk

Women aged 50–71 who take estrogen plus progestin have a significantly increased risk of developing ovarian cancer compared with women who don't use any menopausal hormone therapy, according to study results in the October 4 *Journal of the National Cancer Institute*.

Lead author Dr. James Lacey of NCI's Division of Cancer Epidemiology and Genetics notes the importance of the study: "This is a large study of a rare cancer, and our study's comprehensive information on specific hormone therapy regimens offers a detailed picture of ovarian cancer risk associated with use of estrogen plus progestin."

The study evaluated 97,638 women from the NIH-AARP Diet and Health Study Cohort who completed 2 questionnaires from 1995–1997 that collected information on demographic characteristics, dietary intake, health-related behaviors, family history of cancer, anthropometry, physical activity, and use of hormone therapy. Researchers looked at long-term use—10 or more years—of unopposed estrogen by women with hysterectomy. Dr. Lacey's team also compared women with intact uteri who took only estrogen plus progestin with women with intact uteri who never used hormone therapy.

Women who took unopposed estrogen for 10 or more years had a significantly increased risk of ovarian cancer, whereas women who took unopposed estrogen for less than 10 years had no increased risk. Women with intact uteri who took estrogen plus progestin were approximately twice as likely to develop ovarian cancer as women with intact uteri who didn't use any menopausal hormone therapy.

Previous studies had linked the use of unopposed estrogen to ovarian cancer, but few have evaluated specific estrogen-plus-progestin regimens and ovarian cancer risk. Nonetheless, further research is needed into these associations. "Particular regimens of estrogen and progestin have only been on the market for 15 or 20 years," said Dr. Lacey, "so we will continue to follow this study cohort for years."

Birt-Hogg-Dubé Syndrome Linked to Pathways Involving Energy and Nutrients

Four years after identifying the gene responsible for Birt-Hogg-Dubé (BHD) syndrome, a rare inherited disorder that can lead to kidney cancer, researchers have identified two proteins that interact with the gene's protein product, called folliculin. The interactions suggest that BHD syndrome, which also causes benign hair follicle tumors or hamartomas, may result from changes in molecular pathways that respond to energy levels and nutrient availability in cells.

The NCI research team, of the Center for Cancer Research's (CCR) Laboratory of Immunobiology and Urologic Oncology Branch, which discovered the *BHD* gene in 2002, now reports that in normal cells folliculin interacts with a novel protein they named folliculin-interacting protein 1 (FNIP1). But mutant forms of folliculin predicted to be present in cells from patients with BHD syndrome do not bind to FNIP1, probably due to loss of its binding site.

Drs. Masaya Baba, Laura Schmidt, and their colleagues found that FNIP1 also interacts with a protein that serves as an "energy sensor" in cells, 5'-AMP-activated protein kinase (AMPK). AMPK negatively regulates the mTOR pathway, which, when dysregulated, has been implicated in several other hamartoma syndromes.

Folliculin and its interacting partner, FNIP1, "may be involved in energy and/or nutrient sensing through the AMPK and mTOR signaling pathways," the researchers conclude in a study published online October 6 in *Proceedings of the National Academy of Sciences*. They are developing animal models of BHD to investigate further the roles of these proteins in the development of kidney cancer.

"We are excited to have moved from identifying families with BHD syndrome and an increased risk for kidney cancer to isolating the responsible gene and doing functional studies to understand what folliculin does," says Dr. W. Marston Linehan, chief of CCR's Urologic Oncology Branch.

Model Predicts Likelihood of Lynch Syndrome in Individual Patients

A new model developed by investigators at Dana-Farber Cancer Institute and published in the September 27 *Journal of the American Medical*

(continued on page 4)

(Highlights continued from page 3)
Association provides clinicians with a tool to estimate the likelihood of individual patients carrying mutations in the *MLH1* or *MSH2* genes, the primary causes of Lynch syndrome (also known as hereditary nonpolyposis colorectal cancer). This information can be used to better determine which patients would benefit from molecular evaluation and genetic testing. Other commonly used risk models for Lynch-associated mutations are not designed to predict the likelihood of a single individual carrying a genetic mutation.

The investigators used a set of 898 patients with known *MLH1* or *MSH2* status to develop the model. Variables used in development included personal and family history of Lynch syndrome-associated cancer, and age at diagnosis for patients and any of their first- or second-degree relatives diagnosed with Lynch syndrome-associated cancer. Predicted risk of mutation was broken into five categories: 5 percent or less, 5.1 to 10 percent, 10.1 to 20 percent, 20.1 to 40 percent, and more than 40 percent. The model was then tested and refined in a validation cohort of 1,016 additional patients with colorectal cancer and known mutation status.

"The model demonstrated excellent ability to discriminate between risk groups," stated the authors. The model's sensitivity and specificity depended on the risk category chosen as the cutoff point. Compared with the widely used revised Bethesda Guidelines, the new Dana-Farber model with a cutoff of 10 percent risk would lead to the testing of fewer patients and, at the same time, would miss fewer mutation carriers. The authors have made the model available to health care professionals as a Web-based tool.

Sentinel-Node Biopsy Identifies Metastatic Melanoma Earlier

A large international trial funded by NCI shows that sentinel lymph node biopsy (SNB) can provide important prognostic information about patients who have had surgery for localized primary melanoma. Trial results appear in the September 28 *New England Journal of Medicine.*

Following surgery to remove melanoma lesions, patients are monitored for recurrence through observation of the lymph nodes. If the cancer does not spread to sentinel nodes—those lymph nodes nearest the tumor site—the risk of recurrence is approximately 15 to 20 percent. However, if the cancer does spread to the sentinel nodes, recurrence is all but certain.

Dr. Donald L. Morton of the John Wayne Cancer Institute in Santa Monica, Calif., and colleagues enrolled more than 2,000 patients in this trial from 18 sites in Europe, Australia, and the United States between 1994 and 2002. Patients were assigned to SNB a few months following the initial surgery or to observation until there was clinical evidence of spread to the sentinel lymph nodes.

Patients at low risk of recurrence can avoid unnecessary surgery and the complications that often follow removal of some or all regional lymph nodes. A negative SNB also can significantly reduce both the costs of follow-up surveillance and the anxiety associated with relapse.

In an editorial, Drs. Charles M. Balch of Johns Hopkins University and Natale Cascinelli of the National Tumor Institute in Milan, Italy, describe the study as the largest and most important trial of SNB ever conducted. "The concept of the sentinel node is now well established," they write, reflecting the fact that studies during the 1990s confirmed SNB to be a reliable prognostic tool to detect micrometastases.

U.S. Scientists Win Nobel Prize for Medicine

On October 2, Dr. Andrew Fire of Stanford University and Dr. Craig Mello of the University of Massachusetts Medical School were announced the winners of the Nobel Prize in physiology or medicine. The scientists were recognized for

(Highlights continued on page 7)

(Director's Update continued from page 2)
IRP to fund long-term, high-risk research, have been key in developing each of these approaches to immunotherapy for cancer.

The diversity, dedication, and expertise of CEI faculty makes me proud of this unique community of scientists. I believe this program is ideally positioned to advance immunology research and help deliver a new generation of immunotherapy-based approaches to the prevention and treatment of cancer and AIDS. ◆

CCR Grand Rounds

October 10: Dr. Peter J. Houghton, ALSAC Chair of Pharmacology, Department of Molecular Pharmacology, St. Jude Children's Research Hospital. "The TOR Pathway in the Pathogenesis and Treatment of Cancer."

October 17: No lecture
General Motors Research Festival, October 17–20.

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. ◆

Spotlight

Bisphosphonates Evolve Beyond Palliative Care

In this era of targeted cancer therapies, researchers are adapting bisphosphonates—an "old workhorse" class of drugs first synthesized at the end of the 19th century and later used to treat osteoporosis and prevent complications from bone metastases—to carry anticancer drugs directly to cancer cells in the bone.

Despite its solid appearance, bone is a remarkably plastic substance, undergoing constant remodeling and replacement of old and damaged sections. Two main cell types drive this process: osteoclasts, which break down old bone, and osteoblasts, which lay down a new bone matrix.

In osteoporosis and other disorders that disrupt bone metabolism, the balance between osteoclasts and osteoblasts is disturbed, and the osteoclasts break down more bone than can be replaced, leading to a weakened skeleton.

Researchers in the 1960s developed the bisphosphonates as treatments to prevent bone breakdown. The modern bisphosphonates have an extraordinary affinity for bone cells over any other cell type, and prevent immature osteoclasts from attaching to bone, maturing, and surviving to break down the skeletal matrix.

Oncologists soon became interested in the bisphosphonates to fight the morbidities caused by cancer cells that have metastasized to bone. Aberrant signaling from these cancer cells can disrupt bone metabolism in a manner similar to osteoporosis, leading to skeletal fractures, intense bone pain, and a reduced quality of life.

Today's bisphosphonates, which are up to thousands of times more potent than the first generation, have become the standard of care for preventing skeletal complications from bone metastases.

"Bisphosphonates are really widely used in oncology," said Dr. Jennifer Eng-Wong, a breast cancer specialist at NCI's CCR. "Bone is one of the most common sites of metastasis for breast, prostate, non-small-cell lung cancer, and multiple myeloma, so for our long-term survivors, it's quite common for them to be on these agents."

Recent *in vitro* studies have suggested that bisphosphonates might actually possess anticancer activity. "The osteoclasts concentrate the bisphosphonates at their back end, at a much more concentrated level than you would find in the plasma," explained Dr. Patrick Mantyh, director of the Neurosystems Center at the University of Minnesota, whose research focuses on using bisphosphonates to treat bone cancer pain.

"So the tumor, which is usually sitting behind the osteoclasts, is exposed to a high concentration of the bisphosphonate, and that high concentration probably inhibits and kills endothelial cells, which would then deprive the tumor of its vascular supply," he said.

Researchers have come back to the bisphosphonates not only because of their potential antitumor activity, but because of their affinity for bone. "One idea is that you could actually use a bisphosphonate and attach another molecule to it…to deliver a drug and have it all stick to the skeleton," said Dr. Mantyh. "If you wanted to deliver a therapeutic directly to bone, this may be an attractive way to get it there."

NCI is funding investigators who are working to develop bisphosphonate conjugates—bisphosphonates chemically bound to another molecule. By attaching a cytotoxic anticancer molecule to a bisphosphonate backbone, researchers hope to turn drugs that might be too toxic if delivered alone systemically into targeted therapies.

Dr. Monica Reinholz, at the Mayo Clinic College of Medicine in Rochester, Minn., has been studying bisphosphonate conjugates for the treatment of metastatic breast cancer and multiple myeloma in collaboration with MBC Pharma, Inc., in Boulder, Colo., through a Small Business Technology Transfer grant. One exciting idea, supported by *in vitro* and *in vivo* results, she explained, is that some bisphosphonate conjugates may have more potent anticancer activity than either compound alone.

"Preliminary animal studies have shown that the conjugate reduces metastases to the bone and confers benefits to both bone quality and survival," she said. "This demonstrates efficacy beyond either the bisphosphonate or the cytotoxic drug alone or in the nonconjugated mixture."

"A lot of studies are looking at the possibility of giving bisphosphonates up front in the adjuvant setting, to main-

(continued on page 7)

FDA Update

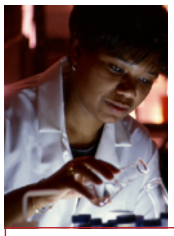
FDA Approves Panitumumab for Metastatic Colon Cancer

The Food and Drug Administration (FDA) has approved panitumumab (Vectibix) for the treatment of metastatic colorectal cancer that has progressed despite standard chemotherapy. The drug received accelerated approval after showing effectiveness in slowing tumor growth and, in some cases, reducing the size of the tumor, according to the FDA.

Panitumumab is a monoclonal antibody that binds to the epidermal growth factor receptor (EGFR) protein on some cancer cells. By binding this protein, the drug may interfere with signals that might otherwise stimulate the growth and survival of cancer cells.

Panitumumab was evaluated in a randomized, controlled clinical trial of 463 patients with metastatic colon or rectal cancer who had been treated with the drugs fluoropyrimidine, oxaliplatin, and irinotecan. The results showed a benefit for panitumumab in progression-free survival but not in overall survival.

The time to progression or death in patients taking panitumumab was 96 days versus 60 days in patients who received standard chemotherapy. Eight percent of the panitumumab group had a reduction in the size of their tumors. Panitumumab is manufactured by Amgen and may be commercially available by mid-October. ◆



Featured Clinical Trial

Prostate Cancer Vaccine Trial

Name of the Trial
Phase I Pilot Study of Vaccine Therapy Comprising Priming Vaccinations of Vaccinia-PSA-TRICOM and Recombinant Fowlpox GM-CSF (rF-GM-CSF) Followed by Boosting Vaccinations of Fowlpox-PSA-TRICOM with or without rF-GM-CSF in Patients with Progressive or Locally Recurrent Prostate Cancer (NCI-05-C-0017). See the protocol summary at http://cancer.gov/clinicaltrials/NCI-05-C-0017.

Principal Investigator
Dr. James Gulley, NCI Center for Cancer Research

Dr. James Gulley

Why This Trial Is Important
Excluding non-melanoma skin cancers, prostate cancer is the most common cancer—and the third most deadly—among North American men. Despite advances in early detection and treatment, the disease recurs in 30 to 40 percent of patients. Although several treatment options exist for recurrent disease, there is no consensus on which is best and additional treatment options are needed.

Prostate-specific antigen (PSA), a protein made by the prostate gland, is often overproduced in prostate cancer. Several studies have shown that PSA-containing vaccines can stimulate the immune system to produce T lymphocytes capable of killing prostate cancer cells. Moreover, some studies in mice suggest that injecting vaccines directly into tumors dramatically boosts the immune response, killing more tumor cells.

In this study, researchers are testing this approach in patients with prostate cancer that has recurred locally or progressed following previous treatment. Besides PSA, the vaccines researchers are using contain T-cell costimulatory molecules to further boost the body's immune response.

"We believe that by placing the vaccine directly into the tumor, the resulting increase in local immune activation will be like shining a laser on the tumor, making it a better target for the T cells," says Dr. Gulley.

Who Can Join This Trial
Researchers seek to enroll up to 30 men aged 18 or over with prostate cancer that has recurred locally after previous radiotherapy or cryotherapy or has progressed despite androgen deprivation therapy. See the list of eligibility criteria at http://cancer.gov/clinicaltrials/NCI-05-C-0017.

Study Site and Contact Information
This study is taking place at the NIH Clinical Center in Bethesda, Md. For more information, call the NCI Clinical Studies Support Center (CSSC) toll free at 1-888-NCI-1937. The call is confidential. ◆

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

Notes

NCI Requests Advice on Agents with Potential for Immunotherapy

Immunological research has discovered many agents with the potential to serve as immunotherapeutic drugs. NCI is working to develop a prioritized list of agents with substantial potential for cancer immunotherapy and is requesting suggestions for agents that might be used in clinical trials alone or in combination with other drugs. Investigators wishing to provide suggestions are encouraged to go to https://webapps4.nci.nih.gov/immuno/SubmissionForm.do to submit agents for consideration.

NIH Research Festival Set for October

This year's NIH Research Festival, "Bench to Beside," will take place October 17–20 in the Natcher Conference Center and the NIH Clinical Center on the NIH campus in Bethesda, Md. For information about the schedule of presentations, job fairs, activities, and other events, go to http://researchfestival.nih.gov/.

NCI Awards Grants to Five Clinical Proteomic Technology Teams

On September 27, NCI announced funding for a major component of its 5-year Clinical Proteomic Technologies Initiative for Cancer (CPTI). Awards totaling $35.5 million over 5 years will establish a collaborative network of five Clinical Proteomic Technology Assessment for Cancer (CPTAC) teams. Each of the teams has expertise in evaluating the measurement technologies for proteins and peptides relevant to clinical cancer research and practice.

The CPTAC awardees are the Broad Institute of MIT and Harvard, Dr. Steven A. Carr, principal investigator (PI); the University of California, San Francisco/Lawrence Berkeley National Laboratory, Dr. Susan Fisher, PI; Vanderbilt University School of Medicine, Dr. Daniel Liebler, PI; Purdue University, Dr. Fred Regnier, PI; and Memorial Sloan-Kettering Cancer Center, Dr. Paul Tempst, PI.

The CPTAC teams will focus on the cross-laboratory comparison and validation of technology platforms used for proteomics measurements as well as bioinformatics software and protocols to establish a basis for intra-laboratory comparison and reproducibility of proteomic data. The output of this consortia of teams will be available through public databases supported by the cancer Biomedical Informatics Grid.

"This program is a critical component of NCI's strategy for leveraging the diagnostic and therapeutic potential of proteomics for cancer patients," said NCI Deputy Director Dr. Anna Barker. "The complementary expertise of the awardees and their commitment to collaboration and real-time data sharing will contribute to a new generation of biomarker-based interventions to diagnose, treat, and prevent cancer."

Additional information on CPTI and CPTAC can be found at http://proteomics.cancer.gov. ◆

NCI Listens and Learns

NCI's State Cancer Legislative Database (SCLD) is a public database of cancer-related legislation from all states. NCI would like feedback from the advocacy community and members of the public on the SCLD.

How would the information provided by the SCLD Web site be useful for your advocacy group (such as the Data Tables, Fact Sheets, Newsletters, Presentations, and Snapshots contained in the SCLD Products page)?

Do you have any suggestions for products and/or services that you would like to see the SCLD program provide in the future?

Additionally, the Director's Consumer Liaison Group (DCLG) is requesting public input regarding their upcoming meeting on October 25.

Which NCI activities or programs are important for the DCLG and the cancer advocacy community to hear about during upcoming DCLG meetings?

Please provide public comments to be addressed during the October 25, 2006 meeting. Please note that these comments will be included as part of the public record for this meeting.

To register and post comments for the SCLD and/or the DCLG, go to http://ncilistens.cancer.gov. ◆

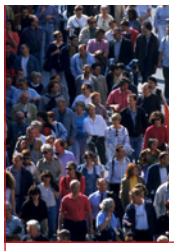
(Spotlight continued from page 5)

tain bone density," said Dr. Reinholz. "If you could use conjugates, you may get the benefits of the bisphosphonate and the chemotherapy all at once." ◆

By Sharon Reynolds

(Highlights continued from page 4)

their discovery of RNA interference (RNAi), a naturally occurring process by which cells regulate the activity of genes. Researchers around the world use RNAi to study genes and their roles in diseases such as cancer. Dr. Mello received NCI support for some of his RNAi research. ◆



Community Update

New Campaign Encourages Tobacco Users to "Be A Quitter"

Smokers and tobacco users trying to quit will soon have a potent ally—fellow smokers. The "Quit Now" Challenge, a new initiative featuring the inspirational stories of people who want to quit smoking, was announced last week by NCI and the Centers for Disease Control and Prevention (CDC).

Now through October 27, 1-800-QUIT-NOW will accept submissions from cigarette smokers and other tobacco users explaining, in their own words, why they want to "Quit Now!" Interested participants can visit www.1800quitnow.org for specific instructions on how to submit video entries. Successful quitters whose stories are chosen will be announced on February 1, 2007. NCI and CDC hope that these stories will help further increase quit rates in the United States.

"Knowing, as we do, that tobacco use accounts for 30 percent of all cancer deaths, helping people quit is key to reducing the burden of this disease," said NCI Director Dr. John E. Niederhuber.

"Encouraging people to quit smoking, and supporting them in their effort to do so, is an important step in preventing the myriad of diseases caused by smoking and tobacco use," agreed NIH Director Dr. Elias A. Zerhouni.

The "Quit Now" Challenge, part of the "Be A Quitter" campaign, enhances NCI and CDC's ongoing National Network of Tobacco Cessation Quitlines initiative. Participants—chosen among men and women between 18 and 29 years old—will be available for television, radio, and newspaper interviews. These participants also will be encouraged to help others quit by posting daily diary entries and sharing their personal stories of Quit Now experiences on the official 1-800-QUIT-NOW Web site, www.1800quitnow.org.

The North American Quitline Consortium, corporate partners, and local organizations in communities across the country are key collaborators in 1-800-QUIT-NOW, providing their expertise to help raise awareness about this toll-free access number. Callers to 1-800-QUIT-NOW, which is a single point of access to state-based quitlines, will continue to receive practical, effective help quitting smoking, informational materials, and referrals to other resources.

"Since 1-800-QUIT-NOW was launched in 2004, it has remained an important resource for the 45 million Americans who smoke, and for other tobacco users, to help them end their addiction," said HHS Secretary Mike Leavitt. "Such a program is vital to help improve the public health of this country, as young people continue to light up, and others continue to die from tobacco-related disease."

In addition to The "Quit Now" Challenge, television and radio public service announcements, an online educational video, print materials, banner ads, and a Web site (www.1800quitnow.org) are part of the tobacco cessation campaign effort.

"Quitting tobacco is not something anyone should have to face alone," said Dr. Corinne Husten, of CDC's Office on Smoking and Health. "It's like a journey, filled with ups and downs. But with the proper coaching and support, people can quit." ◆

Featured Meetings and Events

A calendar of scientific meetings and events sponsored by the National Institutes of Health 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. Contact the *NCI Cancer Bulletin* staff at ncicancerbulletin@mail.nih.gov.