

cancer

D I S C O V E R Y & C A R E



Aging and Cancer

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UPMC Cancer Centers *and*
University of Pittsburgh Cancer Institute

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NEW VISION. NEW TOMORROW.

**It is our responsibility to extend
our knowledge about advances
and insights into cancer and its
treatment into the community as
rapidly and effectively as possible.**



The National Cancer Institute, in its 2005 Cancer Trends Progress Report, announced that the nation is making great progress in reducing the burden of cancer in the United States. Death rates for the four most common cancers (prostate, breast, lung, and colorectal) continue to decline and the rate of cancer incidence has been relatively stable. The report highlights the importance of prevention and early detection – as evidenced in the decrease in both youth and adult smoking rates and the increased use of screening tests, especially for breast and cervical cancer.

At UPMC Cancer Centers and the University of Pittsburgh Cancer Institute, we've devoted significant resources to educating the public about the importance of prevention and early detection. Our efforts reach thousands of people each year in a variety of innovative as well as traditional venues. And we have recently implemented programs to communicate these important messages to underserved populations, who bear a disproportionately high burden of cancer because of insufficient cancer prevention, early detection, or access to quality cancer care.

As the regional leader in cancer research and care, it is our responsibility to extend our knowledge about advances and insights about cancer prevention, early detection, and treatment into the community as rapidly and effectively as possible. To that end, we have invested more than \$750,000 over the past year to support patient education programs not only at the Hillman Cancer Center, but throughout our community network in western Pennsylvania and beyond.

The Cancer Trends Progress Report also highlights considerable cancer-related health disparities, especially in the African American and low socioeconomic populations, where the highest rates of both new cancers and cancer deaths are being seen. To eliminate disparities in cancer prevention, early detection, and effective treatment, and to improve detection and counseling for those who are at increased risk of cancer, we are partnering with the University of Pittsburgh Graduate School of Public Health's Center for Minority Health to reach these underserved communities. We ultimately hope to break down barriers to care through better education, easier access to screenings and innovative cancer treatments, and, as needed, financial counseling and assistance.

It is our responsibility as health care experts to ensure that everyone with cancer, or at risk for cancer, has access to the best resources to help them prevent or overcome their illness and to thereby lead productive, healthy, and full lives. This is our commitment to western Pennsylvania.

Ronald B. Herberman, MD

Hillman Professor of Oncology
Director, UPMC Cancer Centers and the
University of Pittsburgh Cancer Institute

Aging and Cancer

Living With Cancer in the Golden Years



The golden years are that time after retirement when days are filled with hobbies, spending time with family and friends, and perhaps even traveling. They are also the years when cancer is most likely to occur.

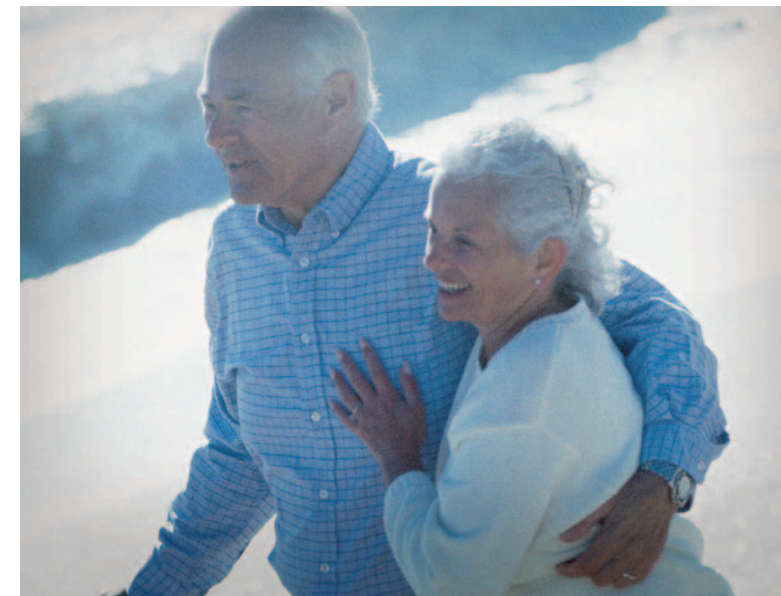
According to the American Cancer Society, about 77 percent of all cancers are being diagnosed at age 55 or older. Reports also show that people 65 years or older have an incidence of cancer 10 times greater than the rate for younger people. The need for research about aging and cancer has never been more urgent, and the issue is particularly relevant in Allegheny County and western Pennsylvania, where the proportion of elderly residents is considerably higher than in almost any other region of the United States.

To address this important national health concern, the National Cancer Institute (NCI) and the National Institute on Aging (NIA) have partnered to launch an initiative to accelerate research into the relationship between cancer and aging that includes a five-year grant of approximately \$25 million. The University of Pittsburgh Cancer Institute (UPCI) is one of eight NCI-designated research centers across the country receiving funding from this program.

“People age 65 and older are at the highest risk for cancer and tend to be the most neglected when it comes to cancer care,” explains Ronald B. Herberman, MD, director, UPMC Cancer Centers and UPCI, and principal investigator of the project, “Integrating Cancer and Aging at Pitt.” “Elderly patients face many physical and social challenges that younger people do not and often have additional health problems that can make cancer more difficult to treat safely and effectively,” says Dr. Herberman. Through laboratory and clinical research studies, UPCI is developing ways to characterize the nature, severity, and likely effects of other health problems on cancer treatment and the ability to cope with cancer. These studies seek appropriate interventions to ease the burden of cancer in this population.

The NCI/NIA initiative outlined seven key areas of research for grant recipients. “We chose three major areas of study — the immunobiology of cancer and aging, clinical trials, and behavioral and psychosocial issues — based on our institute’s strength and expertise,” says Gurmamal Chatta, MD, Division of Hematology-Oncology, UPCI; associate professor of medicine, University of Pittsburgh School of Medicine; and program director of the “Integrating Cancer and Aging at Pitt” project.

By bringing together the collaborative efforts of basic researchers, clinicians, and behavioral medicine experts, the program ultimately will develop a spectrum of care strategies tailored to the individual health and functional status of the elderly cancer patient.



“People age 65 and older are at the highest risk for cancer and tend to be the most neglected when it comes to cancer care.”

Ronald B. Herberman, MD

From Bench to Bedside

The Research Components

Leaders of the cancer and aging program are studying the basic science of DNA repair, immunobiology, and bone biology while targeting prostate cancer and myeloma — cancers that are more prevalent in older people.

The NCI/NIA grant has been leveraged to obtain funding from additional sources, expanding research efforts in the hope of gaining a better understanding of the problems of the elderly cancer patient, and enhancing care. For example, Dr. Chatta and dendritic cell biology expert Pawel Kalinski, MD, PhD, assistant professor of surgery, immunology, and infectious disease and microbiology, UPCI, have been awarded funding from the Department of Defense to develop clinical trials of innovative vaccines for treatment of patients with prostate cancer.

Laura Niedernhofer, MD, PhD, assistant professor, Department of Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine, is currently spearheading the study of the immunobiology of cancer and aging, with Dr. Chatta and Michael Shurin, MD, PhD, associate director, Clinical Immunopathology, UPCI. They are using a prostate cancer model to understand the effect of age on the immune system's ability to ward off cancer and the body's ability to respond to anti-tumor therapy. Their work is funded by the Hillman Fellows Program for Innovative Cancer Research and other private contributions.

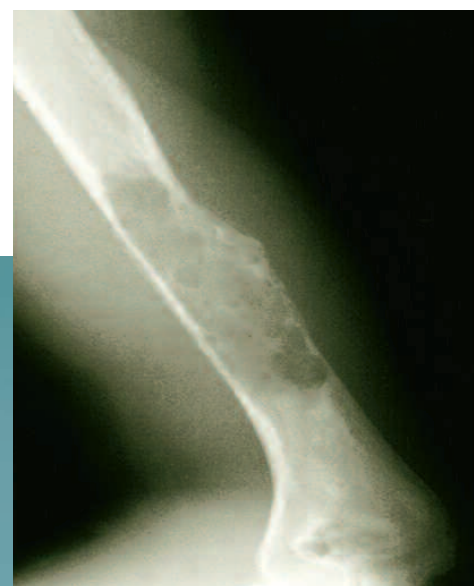
DNA repair processes must be constantly operating to correct any damage to the DNA structure. As cells age, however, the repair processes may become overwhelmed or mistakes in the DNA may have accumulated. These aged cells have the option to become indefinitely dormant, commit suicide, or become cancerous.

Dr. Niedernhofer has taken a genetically engineered mouse that rapidly ages, due to a defect in a gene that is crucial for DNA repair, and crossed it with a mouse model of prostate cancer in order to determine the overlap between cancer and aging. Ultimately, the hope is that such mouse models of cancer and aging will lead to a stem-cell-based treatment that will reduce aging and thereby possibly slow down the progression of cancer.

Because patients with cancer have suppressed immune systems, and the elderly are known to have weakened immune systems in general, UPCI scientists are seeking to improve the function of the immune system by testing some of its many components, such as T cells and dendritic cells. The hypothesis is that if a patient with cancer is treated effectively, his or her immune system will actually improve. Dr. Shurin is currently testing dendritic cell-based vaccines to repair the immune system in the hope of reversing some of the immunosuppression commonly seen in cancer. Abbe Vallejo, PhD, associate professor of pediatrics and immunology, University of Pittsburgh School of Medicine, has undertaken an exhaustive effort to define and correct defects in aging T cells.

Osteolytic lesions, or “punched out” areas of severe bone loss, are often the result of many metastatic cancers, such as prostate, multiple myeloma, breast, and lung. Dr. Chatta defines normal bone remodeling as “the yin and yang of bone destruction and new bone formation.” In a healthy person, bone is destroyed and new bone is laid down at an equal rate. In a patient with bone cancer, that balance is upset.

A complicating factor is women's loss of bone density after menopause, which can be compounded by bone loss due to cancer. The goal is to have a treatment that would correct the imbalance between bone destruction and new bone formation. “Under the direction of David Roodman, MD, PhD, director of the UPCI and UPMC Cancer Centers Myeloma Program, our clinical trials will tell us if these treatments will help or add additional complexities in elderly patients,” says Dr. Chatta. Dr. Roodman has received funding for the study of bone biology in myeloma patients from the Multiple Myeloma Research Foundation.



Severe bone loss, a common problem in the elderly, is also often the result of many cancers.

Gurkamal Chatta, MD, and Stephanie Studenski, MD, are leading a team of cancer and aging experts who are working to improve treatments and quality of life for elderly cancer patients.



Novel Therapies

Members of the “Integrating Cancer and Aging at Pitt” program have worked to develop clinical trials that are more user-friendly for older patients, with more flexible criteria to enable more patients over the age of 65 to enroll.

William Powis, age 76, is a strong advocate of clinical trials. Since being diagnosed with prostate cancer in the summer of 1993, he has undergone a radical prostatectomy, followed by an orchiectomy, and numerous treatments, including radiation and hormone therapy. A follow-up CT scan revealed six tumors in his lungs. In August 2005, a bone scan showed the cancer had moved to Mr. Powis’s sacroiliac.

In addition to his standard therapies, Mr. Powis has participated in three clinical trials over the past three years. “I believe researchers need to learn,” says Mr. Powis. “I know I can’t be cured, but maybe I can help someone else like my son or my grandson.”

Despite his recurrence, Mr. Powis still leads an active life. He helps care for his daughter’s triplets and has traveled to Korea and China with his grandson. “Through it all I feel good. I have no pain, I am eating well, and I am doing everything I want to do.”

Daily Log of Five Important Health States

1. Today I spent more than half of the day in bed.
2. Today I left home without the help of another person.
3. Today I had more difficulty getting dressed and bathing than usual.
4. Today I had more difficulty with my mobility.
5. Symptoms I’ve experienced today:

Listening to What the Patient Has to Say

Another major goal of the cancer and aging program is to address the psychosocial needs of the older cancer patient. “Naturally, in every case we want to prolong the life of the patient, but with the older person there is another important consideration,” explains Dr. Chatta. “We want the elderly cancer patient to have a sustained period of high quality of life, and that is where Dr. Stephanie Studenski comes in.”

Stephanie Studenski, MD, MPH, Division of Geriatric Medicine, University of Pittsburgh School of Medicine, and co-principal investigator of the project, is leading an initiative to identify ways to successfully involve older people in cancer and aging research, and learn more about the older population’s experience when receiving cancer treatment. “We have found that most of our older cancer patients do not want to drive a long distance to the Hillman Cancer Center for their treatment; they prefer to receive their treatment at one of the community UPMC Cancer Centers, closer to home,” explains Dr. Studenski.

Through the cancer and aging grant, Dr. Studenski launched the “Daily Activity Study,” a research study targeted to patients at the community cancer centers as well as the Hillman Cancer Center. It is designed to measure their day-to-day experience while living with — and being treated for — cancer.

Traditionally, patients are given a long list of questions every few months to determine health status or quality of life — addressing their pain, fatigue, and nausea, for example — and are asked to rate themselves on a scale from one to five. These questions are then combined to create a summary score. The summary score is often very difficult for the patient, family members, caregivers, and even clinicians to understand due to lack of familiarity with the scales and scores. “Many cancer patients want to know about the effect of the cancer treatment on their overall function and independence,” says Dr. Studenski.

Through this new, simplified survey, clinicians are able to more easily obtain information about a patient’s experience while receiving cancer treatment. Older cancer patients are asked to spend one minute a day keeping a simple log of five important health states.

Patients from community locations, including UPMC Cancer Center at UPMC Passavant, UPMC Cancer Center at UPMC McKeesport, and Arnold Palmer Pavilion at Oakbrook Commons, participated in the 12-week study.

“This project made me feel like someone out there cared and listened for the first time.”

**Florence Fiaretti,
ovarian cancer survivor**

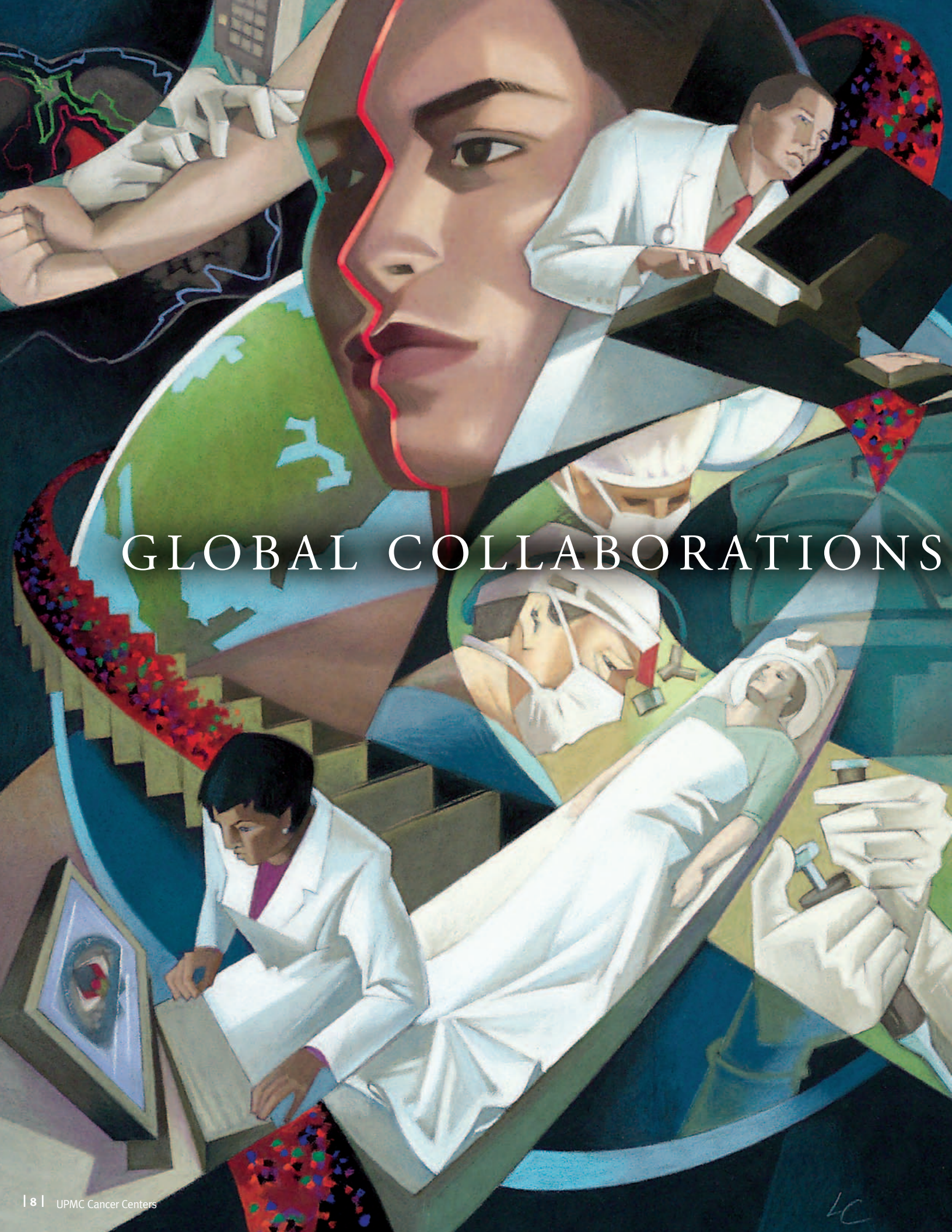
Florence Fiaretti, 65, is an ovarian cancer patient at UPMC Cancer Center at UPMC Passavant who has been battling her cancer for 15 years with periodic chemotherapy treatments. She participated in the study in spring 2005. “It was very beneficial for me, because when you are going through chemo, you lose so much of yourself physically and mentally,” explains Mrs. Fiaretti. “Even though it was a simple survey, it motivated me to think about how I felt.” More importantly for Mrs. Fiaretti, it meant a lot to her to know someone cared enough to do the project. “Sometimes you feel forgotten when you have cancer because your friends don’t know exactly what to say or how to approach you. You have your family, but you still feel kind of lonely. This project made me feel like someone out there cared and listened for the first time.”

Ultimately, the survey makes it easier for the health care provider to understand what the patient is feeling during treatment. “Patients can use the ‘Daily Activity Study’ as a tool to communicate with their physicians,” says Elizabeth Hile, MS, PT, NCS, a researcher under Dr. Studenski. “This improved communication can be a key factor in the management of a patient’s treatment.”

Polishing the Golden Years

The 65 and older population segment in the United States is expected to double from 35 million to 70 million by 2030. The initiatives developed through the cancer and aging program, now in its third year, will continue to improve the quality of life and quality of care in elderly patients, not only at the Hillman Cancer Center but throughout the UPMC Cancer Centers network and beyond. Drs. Herberman, Chatta, Studenski, and their associates plan to continue to propose innovative projects to secure funding that will focus on research and treatment for the aging cancer patient.





GLOBAL COLLABORATIONS



caBIG

Project Fosters Access to Data, Development of Therapies

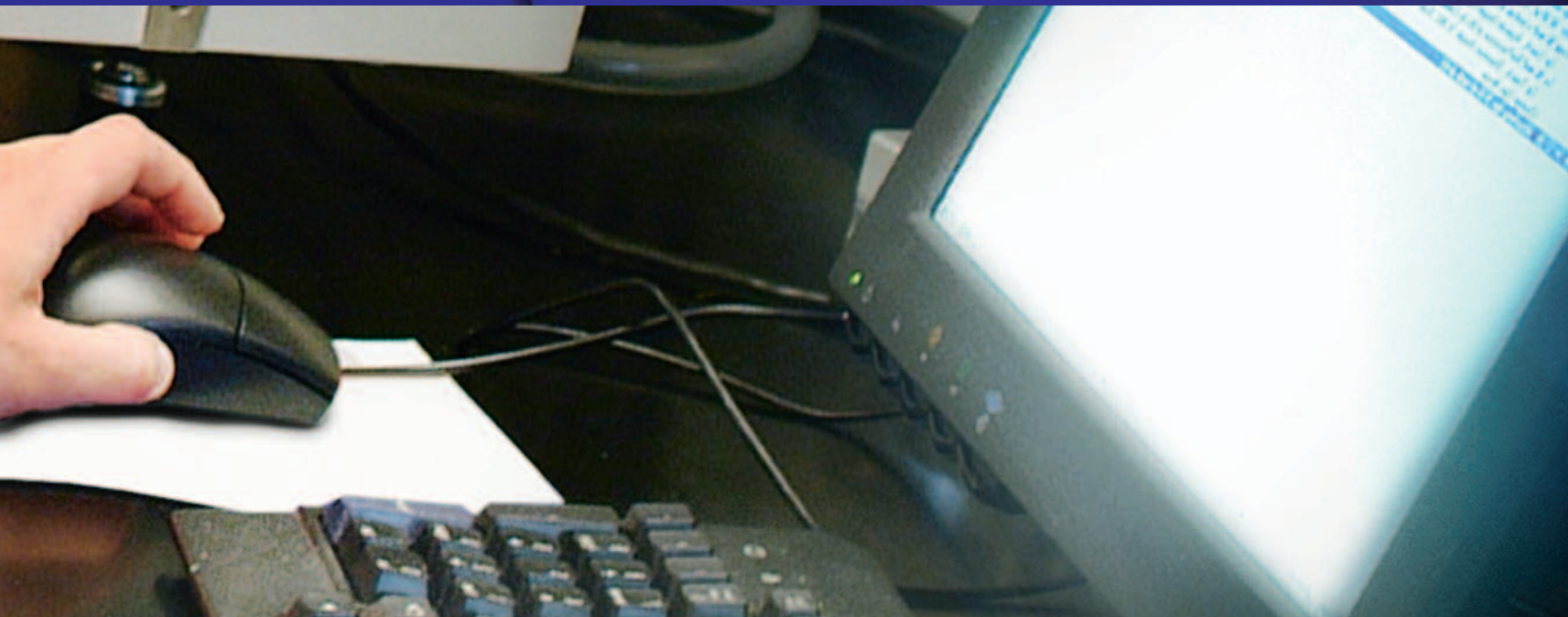
“Say a doctor at an institution has a patient with a rare form of brain cancer,” posits Michael Becich, MD, PhD, professor of pathology, associate director for Oncology Informatics at the University of Pittsburgh Cancer Institute (UPCI), and director of the Benedum Oncology Informatics Center. “While combing journals and lists of clinical trials may reveal something that could help the patient, it’s time consuming and always risks missing an important treatment opportunity.”

But if an oncologist could quickly perform the equivalent of a World Wide Web search of thousands of cancer studies and millions of patient records, that brain cancer might seem less rare. The oncologist could quickly home in on treatment options that had good outcomes for other patients.

Dr. Becich is a leader in a three-year pilot project to develop just those capabilities through UPCI’s component of the Cancer Biomedical Informatics Grid, or caBIG. “Essentially, it’s a kind of authorized-users-only Internet for the cancer community,” he says.

“A grid that securely and confidentially connects all the research and patient records in the country.”

caBIG is a collaboration among approximately 50 NCI-designated Comprehensive Cancer Centers, in which UPCI is playing a major role, to develop a network for sharing the data that each center collects, along with tools to unite the wide array of systems used by cancer research institutions and hospitals. The ultimate goal is to provide easier access to potentially life-saving advances in prevention, early detection, and treatment of cancer.



“When it comes to clinical research trials, there is not a standard mechanism for constructing, collecting, analyzing, and reporting the data,” says Douglas Fridsma, MD, assistant professor of medicine and principal investigator of a caBIG contract to UPCI to develop the BRIDG model, or the Biomedical Research Integrated Domain Group model. BRIDG is a collaboration among researchers at UPCI, other NCI cancer centers, the pharmaceutical industry, and organizations that promulgate standards for clinical research and hospital data systems.

“We pay a price for the dispersed nature of today’s research data storage,” Dr. Fridsma says. For example, a patient in a clinical trial develops a serious condition and is the only one in the trial with this problem: Is the drug causing a rare side effect, or is the problem just a coincidence?

By pooling the data among multiple trials, systems based on standards like BRIDG can spotlight patterns of rare side effects much sooner, and with statistical significance. This could mean the difference between a dozen patients experiencing a side effect in a trial, and thousands experiencing it when the drug is approved and widely prescribed.

The array of data systems used by cancer research institutions and hospitals to organize and store information use a variety of computer languages and vocabularies. “The first step in bringing together the vast, largely untapped information in the cancer research community’s databases has to be creating a common vocabulary and classification system to knit all those computer systems together,” says Rebecca Crowley, MD, assistant professor of pathology. Dr. Crowley is principal investigator of caTIES — the Cancer Text Information Extraction System.

Dr. Crowley’s work aims to link millions of records of pathology samples at different institutions. These samples are critical to the diagnosis, grading, and staging of cancers and are one of the most valuable, though largely untapped, tools in cancer research.

Dr. Crowley has collaborated with the University of Pennsylvania to connect more than 60,000 pathology reports, which are now shared on the caGRID (the World Wide Web of cancer). By this spring, more than a million records — formerly locked in hospital laboratories and clinical trial repositories — will be available to researchers.

caBIG and its component projects aim to deconstruct the vocabulary, syntax, and higher structures of medical and research records so that computers can make “apples-to-apples” comparisons.

“It’s a gradual process of building up layer by layer by layer,” says Dr. Crowley. Creating a dictionary of synonyms and annotating text records allows computers to scan them far more effectively, she explains. “Even though it’s free text, the annotations let us get very quickly to the right reports.” This greatly facilitates discovery and validation of tumor biomarkers critical to the formulation of new treatments.

“Security and patient confidentiality are other features built into caTIES and the other caBIG projects from the onset,” Dr. Crowley adds. “The program gives researchers only the data they need while stripping out names and other personal information.”

Today, BRIDG has been adopted by Health Level Seven, which is an American National Standards Institute-accredited organization developing standards for clinical and administrative data for hospitals and other health care organizations nationwide. The Clinical Data

Standards Interchange Consortium (CDSIC) is now using BRIDG to help it develop new standards for research data management. And the Food and Drug Administration intends to use BRIDG to connect data from both of those systems in an attempt to streamline its drug evaluation process. Dr. Fridsma was just awarded a prestigious national award from CDSIC for his pioneering work in this effort.

“In the next phase of caTIES we’ll have two additional adopters, Thomas Jefferson University in Philadelphia and Washington University in St. Louis,” Dr. Crowley says. “Additionally, we’ll be ramping up the number of cases; by next year, we’ll probably have several million.”

As for the overall caBIG project, “we’re about halfway through the three-year pilot,” says Dr. Becich. “By March 2006 we will have implemented our tools at six sites. That’s an incredibly short period of time to get these kinds of tools implemented.”

The real payoff of caBIG will come in the years after the system gains wider adoption, says Dr. Fridsma. “I believe in this work because I really think it’s the way we’re going to reduce the pain and death from diseases like cancer.”

Linking the millions of records of pathology samples at different institutions — one of the most valuable and largely untapped tools in cancer research — is critical to the diagnosis, grading, and staging of cancer.



EASING THE BURDEN

Outreach Program Targets Disparities in Education, Access to Care

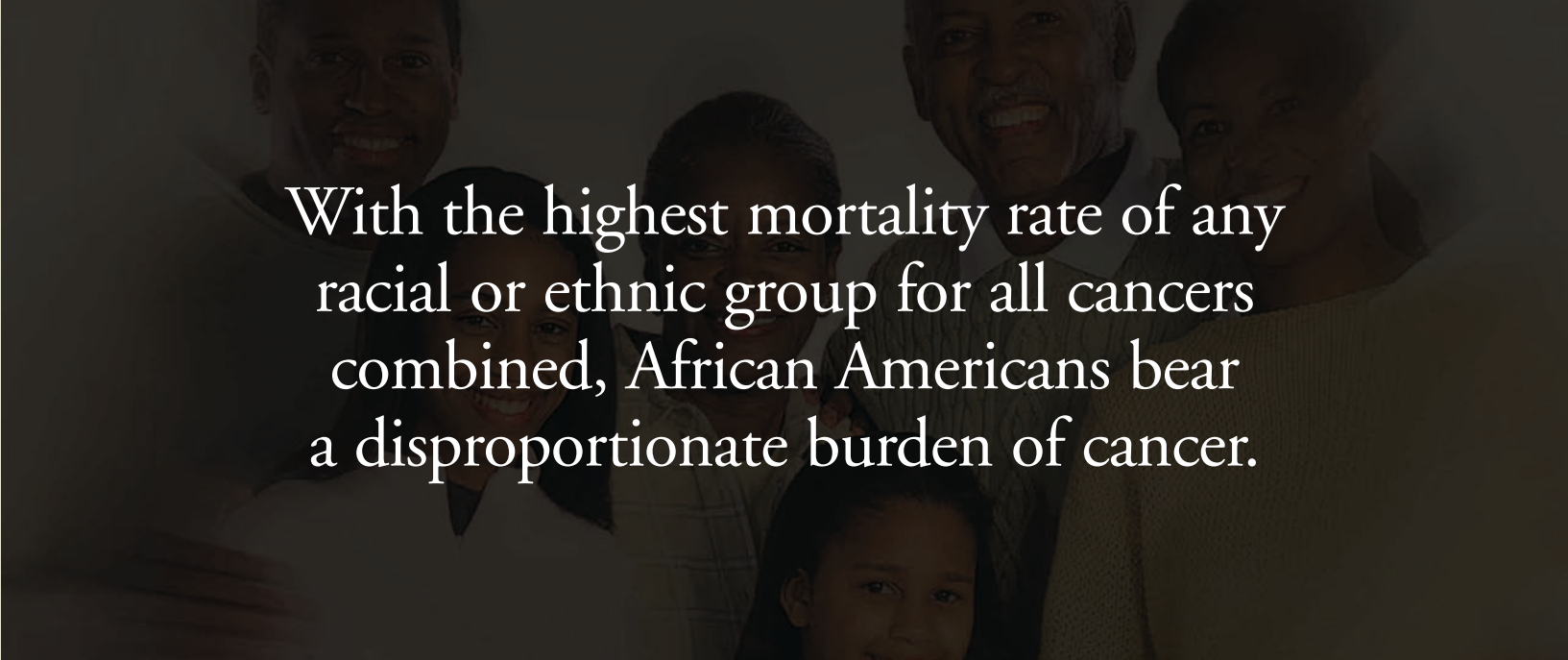

American Cancer Society statistics show that African Americans bear a disproportionate burden of cancer — with the highest mortality rate of any racial or ethnic group for all cancers combined and for most major cancers. African American men, in particular, have a 20 percent higher incidence and a 40 percent higher death rate from all cancers combined than white men.

UPMC Cancer Centers and the University of Pittsburgh Cancer Institute (UPCI), recognizing the need for better prevention and detection strategies targeted specifically to the African American and underserved populations, have implemented a variety of programs to enhance cancer education opportunities, provide easier access to screenings, treatment and care, and as needed, financial counseling and assistance. The goal of these programs is to ease the burden of cancer in the African American and other underserved communities.

These new outreach initiatives are an extension of UPCI's African American Cancer Program. Initially established more than 10 years ago to identify and eliminate barriers that prevent African Americans from

obtaining access to cancer diagnostic and treatment services, this community-focused program offers cancer screenings in Homewood, Braddock, Duquesne, and Aliquippa. The program encompasses self-help groups for African American cancer survivors, including the annual "Celebration of Life" dinner for survivors. Members of the African American Cancer Program also work with the Cancer Awareness Coalition, a group composed of more than 15 health care and community organizations in Allegheny County, to increase access to care at UPMC Cancer Centers.

In 2005, UPMC Cancer Centers and UPCI established two new working committees to further address the burden of cancer for underserved populations in western Pennsylvania. Working in conjunction with the University of Pittsburgh Graduate School of Public Health's Center for Minority Health, these teams are developing new strategies to make information about prevention, early detection, and the best treatment options more accessible to African Americans and other underserved populations.



With the highest mortality rate of any racial or ethnic group for all cancers combined, African Americans bear a disproportionate burden of cancer.



Working with the Healthy Black Family Project offers unique opportunities to provide lifesaving information about cancer prevention and control in a community setting.



“UPMC Cancer Centers is a leader in translational research and offers our patients cutting-edge therapies through clinical trials,” says Timothy Carlos, MD, co-chair of a working group to educate both referring physicians and the general public about clinical trials and how African Americans can benefit from these options. “We need to more aggressively educate the public about these options, especially in underserved communities.”

The partnership with the Graduate School of Public Health’s Center for Minority Health (CMH) builds upon a foundation of trusted relationships in the African American community established by CMH over the past ten years. In 2005, CMH launched the Healthy Black Family Project which has enrolled more than 2,000 African American families in an ongoing program of health promotion and disease prevention. The program has field offices at the Kingsley Association in East Liberty, and Hosanna House in Wilkinsburg, and will expand into the Hill District and North Side of Pittsburgh this year.

“The Healthy Black Family Project provides an excellent platform for reaching African Americans with lifesaving information on cancer prevention and control,” said Stephen B. Thomas, MD, CMH director and co-chair of the working group. The CMH operates the Cancer Information Service in southwestern Pennsylvania and brings expertise in delivery of community-based interventions that are culturally competent and scientifically sound.

Each month, UPMC Cancer Centers and CMH sponsor a cancer education series through the Healthy Black Family Project at various community locations. Focusing on a specific cancer type, the weekly series includes a variety of educational events, including a general informational session, an “Ask the Doctor” session, and an opportunity to talk with other cancer survivors. “We are incorporating cancer education in-between other popular health initiatives, such as yoga, nutrition, stress reduction, and physical activity classes,” explains Dr. Thomas. “People are drawn to the health promotion classes and, once there, stay for the cancer education. It has been a great success.”

Financial burdens are another major barrier to cutting-edge care for underserved populations. Due to disparities in health care coverage, many may not be able to take advantage of new screening and treatment options. A second working group was established to address these financial disparities.

As a result of the recommendations from this working group, on Jan. 1, 2006, UPMC Cancer Centers initiated a one-year pilot program to provide financial assistance to patients with prostate, lung, breast, or colon cancer at four UPMC facilities: Hillman Cancer Center, Magee-Womens Hospital of UPMC, UPMC McKeesport, and UPMC Braddock.

According to Lyn Robertson, DrPH, associate director for patient care services and cancer education at UPMC Cancer Centers and administrator of the program, “We want to ensure that patients with a diagnosis of

cancer will have access, regardless of financial means, to the latest innovations in treatment and care for their cancer.”

UPMC Cancer Centers has established a \$750,000 limited fund to help underinsured or uninsured patients obtain the best possible care, including participation in clinical trials of innovative cancer treatments. “We will work with each patient to explore all funding possibilities,” explains Dr. Robertson. “This pool of funding is a safety net for those who have no other options to cover their care.”

The financial assistance program is being promoted to patients through a variety of community organizations, including African American community centers, physicians, and clergy. “We are targeting leaders in the community who can help influence those in need to take advantage of the care we have available, regardless of financial means,” says Dr. Robertson.

It is estimated that nearly 140,000 new cases of cancer were diagnosed in the United States’ African American population during 2005. Implementing more proactive strategies to educate the community will ultimately reduce racial and ethnic disparities in cancer prevention, screening, and treatment, resulting in earlier detection, better access to new therapies, and most importantly, reduce their burden of cancer.

UPMC Cancer Centers' team of education specialists, including (left to right) Marian Bragdon, Kay Lowmaster, Lynda Tunon, Susan Sherwin, and Marina Posvar, is taking important messages about cancer prevention and early detection to the community.



Patients and family members throughout the UPMC Cancer Centers network can access educational resources from the Gumberg Family Library located at the Hillman Cancer Center.



Team Goal: Preventing Cancer

EDUCATION INITIATIVES KEY TO CANCER PREVENTION AND EARLY DETECTION

More than 36,000 patients are treated each year at UPMC Cancer Centers' network of 46 locations in the western Pennsylvania region and beyond. As the need for cancer care continues to grow, professionals from the Hillman Cancer Center and the University of Pittsburgh Cancer Institute (UPCI) have implemented several community outreach and patient education programs to meet the needs of a diverse population. The goal is to teach people about cancer prevention and early detection — close to home.

PROVIDING A UNIFIED VOICE

As director of cancer education for UPMC Cancer Centers, Lynda Tunon, MSN, RN, OCN, is responsible for ensuring that consistent, high quality education is available across the cancer centers network. In addition to patient education, Ms. Tunon oversees professional education, cancer prevention and community education programs, outreach programs for students, and a recently implemented patient navigation program at the Hillman Cancer Center.

Ms. Tunon leads a working group of more than 90 representatives from the network sites who provide their expertise in patient education to create cancer education materials on newly approved cancer drugs and radiation treatments as well as clinical trials and nutritional issues related to treatment.

These materials are made available to staff as well as to patients and the public. In addition, each representative trains other staff members about patient education resources that are available at their respective sites. The group meets once a month via videoconference to discuss patient education outreach and available materials, and to share ideas about how to promote cancer awareness.

"A roundtable discussion allows representatives to share patient education projects and activities they are hosting at their sites," says Ms. Tunon, "and to ask questions or bounce ideas off each other."

The meeting also provides an opportunity for representatives to learn about newly approved cancer drugs and clinical trials that are open to patients through UPCI.

"The videoconferencing capability is wonderful," says Chris Carlisle, RN, OCN, clinical manager, UPMC Cancer Centers' Beaver, North Hills, St. Margaret, and New Castle locations. "The staff does not have to drive to Shadyside to attend the monthly meetings. They are still able to focus on patient care for a large part of the day by participating from their network locations."

The monthly meeting adjourns with a brief book-sharing of newly released books that are available to purchase for, or recommended to, patients and staff dealing with cancer.

PATIENT EDUCATION AT THE HILLMAN CANCER CENTER

The Gumberg Family Library, a patient and family education and information center at the Hillman Cancer Center, is the hub of patient education activities for the cancer centers network. In addition to the hundreds of books, pamphlets, videos, and CDs at the Gumberg Family Library, a staff of four is available to help a newly diagnosed patient, caregiver, or family member face cancer and take the next steps to cope with the disease.

"While it has many aspects of a traditional library, including five computers for patient use, we like to tell patients and family members that it's a place to come and talk with a cancer professional," Ms. Tunon explains. "We're more than just a resource for information. We are a resource for support, too." The staff includes two nurse educators, an oncology social worker, and an administrative coordinator. They assist in finding resources, answer questions about cancer, and discuss ways to deal with the emotional, financial, and physical aspects of caregiving. These professionals also offer small, individualized classes that provide topic-specific instruction for each patient and family members. Known as the "Drop in and Learn" series, the classes are very informal, to ensure a level of comfort is maintained for the

Team Goal: Preventing Cancer

“We’re more than just a resource for information. We are a resource for support too.”

Lynda Tunon, MSN, RN, OCN

Patient navigators familiarize new patients with the many support resources available at the Hillman Cancer Center.

patient. A wide range of topics is covered, including: Chemotherapy, Family Caregiver Education, Ask the Nurse, Ask the Dietitian, Ask the Pharmacist, and Ask the Social Worker.

“We do our best to answer any general questions the patient may have,” says Ms. Tunon. “However, questions specific to the patient’s treatment plan are referred to the patient’s cancer treatment team.” The Gumberg Family Library is free and also open to the general public.

WELCOMING NEW PATIENTS

Facing a diagnosis of cancer and understanding the health care system in general can be a trying experience for new patients. To help alleviate stress and frustration, the patient navigation services program was recently implemented at the Hillman Cancer Center to provide individualized assistance to patients, family, and caregivers. “Dealing with cancer and the many stages of diagnosis and treatment is a long and trying journey for patients and their families,” says Marina Posvar, patient navigation services coordinator. “From the very first visit, we’re here to be a familiar and helpful face throughout that journey.”

Each new patient is greeted with a packet of information about the wide variety of services provided by UPMC Cancer Centers and the Hillman Cancer Center. They are then personally escorted by a patient navigator to the Gumberg Family Library where they may talk to a professional or find information about their disease or treatment. The patient navigators are available to assist with any needs the patient may have on subsequent visits to the Hillman Cancer Center.

In August 2005, the patient navigator program expanded beyond the Hillman Cancer Center to encompass education and prevention in underserved communities. Volunteers are trained about the importance of early detection of colorectal, breast, cervical, and prostate cancers specifically, and how to talk

to people about these cancers. These volunteers are then dispatched to the community to spread the word about the importance of early detection and treatment. “The goal is to break down barriers such as transportation and financial need and help people get screenings and treatment,” Ms. Tunon explains.

EDUCATION AND PREVENTION IN THE COMMUNITY

Experience has demonstrated that the key to preventing cancer is knowledge about the avoidable risk factors for the major forms of cancer. The number one priority for Kay Lowmaster, MSW, LCSW, program coordinator, prevention and community outreach, UPMC Cancer Centers, is to educate people in the community about the risk factors for cancer and to stress the importance of early detection for various types of cancer. Her efforts include traditional community outreach, such as “Prevention and Early Detection” seminars for churches and women’s and men’s groups, as well as participation at health and wellness fairs. She also has designed a “Lunch and Learn” lecture for local businesses, such as Alcoa and Duquesne Light, to enhance employee wellness.

Ms. Lowmaster’s one-hour lecture and slide presentation explains what cancer is and dispels some common myths about the disease. It also focuses on early detection for breast, prostate, cervical, and colon cancer, and includes information on cancer prevention, covering such topics as tobacco use, sun safety, nutrition, and physical activity. The presentation is followed by a question and answer session. “People are often hesitant to openly ask personal questions in front of their peers, so I am always willing to stay afterward to talk with them,” says Ms. Lowmaster. “I am happy to be getting the word out, and if I make a difference with even one or two people, that’s a success.”

In addition to her responsibilities as community outreach coordinator, Ms. Lowmaster is also the coordinator of the



Education about cancer prevention needs to begin early and be continually reinforced.



UPMC Cancer Centers’ chapter of Us TOO International. Ms. Lowmaster began volunteering with this prostate cancer support group 10 years ago, and now facilitates the Us TOO Prostate Cancer Education and Support Group, and coordinates the Us TOO Peer Counseling Program.

The support group, which also is open to spouses and family members, holds monthly meetings at the Hillman Cancer Center. The meetings consist of a guest speaker, who is an expert in some area of prostate cancer, followed by an optional open discussion forum. Ms. Lowmaster also implemented a 12-member steering committee to ensure survivors have input regarding the direction of the group. In November 2005, the chapter received a Chapter Spotlight Award from Us TOO national headquarters in Chicago and was recognized as one of the most outstanding chapters in the country.

Ms. Lowmaster also coordinates free prostate cancer and skin cancer screenings as part of her prevention and community outreach program.

STARTING IN THE CLASSROOM

General education about cancer prevention needs to begin early in life. Two UPMC Cancer Centers outreach programs offer schools in the Pittsburgh area an opportunity to supplement their regular curriculum with cancer prevention information. Susan Sherwin, community programs educator, and Marian S. Bragdon, RN, MEd, ONC, are two UPMC Cancer Centers professionals who travel to elementary and high schools to teach cancer prevention. Sherwin’s “Healthy Choices for Students: A Cancer Awareness Program for School Aged Children,” a cancer prevention program for grades two through seven, with a special concentration on fifth grade, teaches children about the negative effects of tobacco use, good nutritional habits, and skin care. The program is expected to reach more than 5,000 students this school year. Ms. Bragdon’s “Healthy Choices for High School Cancer Prevention Program” teaches students about prevention on a larger scale, and often requires Bragdon to call on her formal medical education to field more complex questions about cancer. “I truly enjoy working with students because they are very interested in learning about

cancer,” says Ms. Bragdon. She has reached more than 25,000 students with her program, which continues to grow in popularity.

Both women provide the students with age-appropriate activity packets that are collated by the Hillman Cancer Center’s Volunteer Services department, and brochures from the American Cancer Society. The hope is that the prevention information provided to the students will extend to the home, to be shared with family and friends.

THE NEXT STEPS

Thousands of patients, students, friends, and families have been touched by the education programs offered by UPMC Cancer Centers and the University of Pittsburgh Cancer Institute. As advances in cancer care and treatment rapidly occur, it is important to continue to offer patients and the community a variety of opportunities to access this information — ultimately saving lives by preventing cancer.



Seasons of Hope:

A FUTURE WITHOUT CANCER

Gala event takes center stage in May 2006

The 2006 gala event, to benefit patient care and cancer research, will take center stage on Wednesday, May 3, at the UPMC Sports Performance Complex on Pittsburgh's South Side.

Presenting sponsors for the event are PNC and the University of Pittsburgh Medical Center, with Honorary Chairs Elsie and Henry Hillman joined by Honorary Celebrity Chairs Kit and Arnold Palmer. Event co-chairs are Sandra and Thomas Usher and Sharon and James Rohr. Daniel Rooney is the inaugural Pittsburgh-Ireland Ambassador.

Hillman Cancer Center is the flagship facility of the UPMC Cancer Centers' clinical care network and home to the research activities of the University of Pittsburgh Cancer Institute.

Since opening in 2002, the Hillman Cancer Center has become the region's preeminent provider of care and research. More than 85 new medical and research physicians have been recruited to the region, leading innovative treatment approaches for a wide variety of cancers including leukemia and lymphoma, a better understanding of DNA repair, a search for new viruses that contribute to the cause of certain cancers, development of innovative approaches to cancer prevention and early diagnosis, molecularly targeted drugs, and of therapeutic cancer vaccines and other biological approaches to treatment. Funds raised will support these and other programs.

For more information about sponsorship opportunities or to purchase tickets, contact the UPMC Cancer Centers/ University of Pittsburgh Cancer Institute Development Department at 412-623-4777.



A preview party for the 2006 gala was held in October 2005 at the Jay Verno Studios. Gala sponsors and members of the Circle of Hope — donors who have made contributions of \$10,000 or more in a calendar year — were updated on accomplishments made in patient care and research at the Hillman Cancer Center. Details about the May 3, 2006 event, Seasons of Hope, were also announced. Honorary Chairs Elsie and Henry Hillman (above with Ronald Herberman, MD) introduced the 2006 event co-chairs Sandra and Thomas Usher and Sharon and James Rohr (above left, Sharon Rohr not pictured).



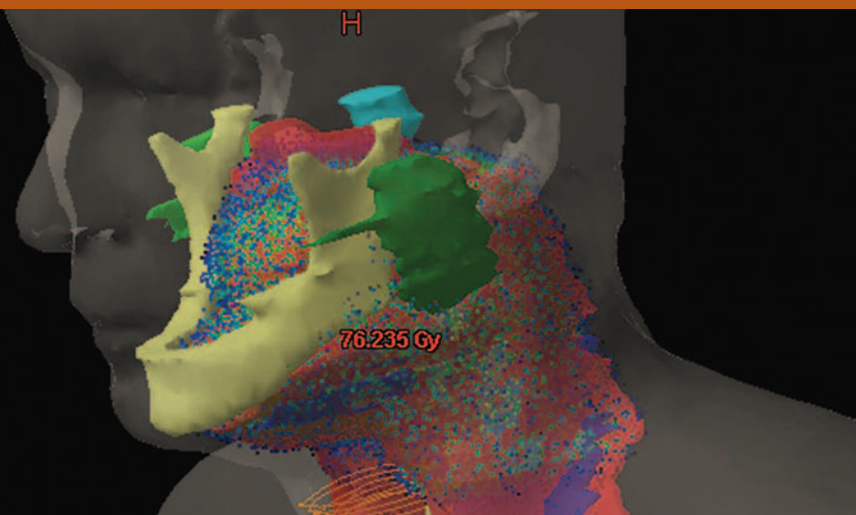
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Uncork a fine opportunity — **THE PITTSBURGH WINE FESTIVAL**

The Pittsburgh Wine Festival will be held Wednesday, May 3, through Saturday, May 6, 2006. Another sell-out crowd is expected for the May 4 VIP and Grand Tasting at Heinz Field and other events, all benefiting the University of Pittsburgh Cancer Institute. This year's Festival will expand to a wider audience with the inclusion of wine, food, and culture-related events and seminars.

Also new this year are private wine dinners, to be held in the homes of prominent community leaders, including Barbara Barry, Peter Karlovich and Steve Herforth, Tricia and Bill Kassling, Laura and Claude Kronk, Kevin McClatchy, Peggy and Jack Offenbach, Teri and Damian Soffer, and others. Each dinner will feature a stellar vintner together with their chef for an outstanding evening of fine wine and culinary excellence.

Sponsors include Comcast, Pennsylvania Liquor Control Board, PNC, UPMC and others. For more information about participation in the private dinners, please contact the UPMC Cancer Centers and University of Pittsburgh Cancer Institute Development Department at 412-623-4700. Or visit www.pittsburghwinefestival.com for further information about the 2006 Pittsburgh Wine Festival.



Protein May Inhibit Head and Neck Tumor Growth

A protein associated with the growth of head and neck tumors may be a tumor suppressor that could prevent the spread of cancer when it is expressed above normal levels, according to a study published in the Feb. 1 issue of the *Journal of the National Cancer Institute* (JNCI).

The study, led by Jennifer Grandis, MD, director, Head and Neck Cancer Program, University of Pittsburgh Cancer Institute, and professor of otolaryngology and pharmacology, University of Pittsburgh School of Medicine, is the first to show that the expression of a protein called STAT1 may play a vital role in preventing head and neck tumor growth. STAT1 belongs to a family of proteins called signal transducers and activators of transcription that have been linked to tumor progression in many cancers.

Dr. Grandis and colleagues compared the expression of STAT1 in squamous cell carcinoma of the head and neck tumors to its expression in normal tissue samples. They found that STAT1 was expressed in lower levels in the tumor cells than in the normal cells. Upon chemically altering the expression of STAT1 to increase its levels, the cancer cells diminished and died.

Magee-Womens Hospital Launches Ovarian Cancer Clinical Trial

Magee-Womens Hospital has announced its participation in a research study evaluating a new combination therapy for women with recurrent ovarian cancer. The trial, referred to as ASSIST-3 (Assessment of Survival in Solid Tumors 3), is a phase III clinical trial consisting of a combination of TELCYTA (TLK286), a new type of chemotherapy,

and carboplatin, a standard, approved chemotherapy. The trial seeks to determine if the combination therapy shrinks tumors in women with recurrent ovarian cancer.

TELCYTA is activated by GST P1-1, an enzyme found in increased quantities in cancer cells, and targets tumors that over-express this enzyme. Scientists believe GST P1-1 plays an important role in the development of resistance to commonly used chemotherapeutic drugs.

Women who enroll in the study will be randomized to receive either the combination of TELCYTA and carboplatin or Doxil®, a standard-of-care therapy for recurrent ovarian cancer.

Fund for Patients In Need Established

UPMC Cancer Centers has established a fund to help cancer patients overcome financial barriers to completing their treatment by providing partial, short-term assistance with health care-related costs. The Patient Assistance Fund is designed to help eligible patients with costs such as transportation, medical equipment, nutrition, prosthetic devices, and lodging for themselves or family members. According to medical oncologist Barry C. Lembersky, MD, many patients receiving cancer treatment experience a substantial loss of income due to the impact of both the disease and the therapy, creating an undue burden on those already in financial need. Some of these patients may make decisions to forego their treatment, with dire consequences for survival and quality of life. Contact the UPCI Development Department at 412-623-4700 for more information about the fund.

Cancer Centers Network Continues to Expand

UPMC Cancer Centers opened two new radiation oncology facilities in late 2005 — the Radiation Oncology Center at Jefferson Regional Medical Center, a program of Jefferson Regional Medical Center and UPMC Cancer Centers, located south of Pittsburgh on the Route 51 corridor, and UPMC/Jameson Cancer Center in New Castle. In addition, UPMC Cancer Center at UPMC Northwest in Venango County joined the network, offering both medical and radiation oncology services at this hospital-based location. Through the UPMC Cancer Centers network, patients have convenient access to cutting-edge therapies and technologies, as well as support services at 46 locations throughout western Pennsylvania and adjacent areas of Ohio and West Virginia.

Rendell Visits Hillman Cancer Center

Governor Edward G. Rendell visited the Hillman Cancer Center to learn about advances in translational research and patient care at UPMC Cancer Centers and the University of Pittsburgh Cancer Institute. After touring laboratory facilities and treatment areas, Governor Rendell met with clinical and research leadership to discuss the impact on cancer research and economic development of Pennsylvania's tobacco Master Settlement Agreement funding. These funds are used to recruit new, high quality faculty and to support the initiation of a variety of research programs that are vital to improving cancer prevention, diagnosis, and treatment activities.



cancer

DISCOVERY & CARE

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UPMC Cancer Centers offers cancer patients exceptional care and innovative treatments close to home. Working in tandem with the University of Pittsburgh Cancer Institute, western Pennsylvania's only National Cancer Institute-designated Comprehensive Cancer Center, UPMC Cancer Centers provides the latest advances in cancer prevention, detection, diagnosis, and treatment at community-based locations throughout the region. The University of Pittsburgh Cancer Institute comprises the academic and research activities for cancer at the University of Pittsburgh and the University of Pittsburgh Medical Center.

For information about supporting cancer research efforts and patient care at the University of Pittsburgh Cancer Institute and UPMC Cancer Centers, contact us at 412-623-4700.



UPMC Cancer Centers *and*
University of Pittsburgh Cancer Institute