

WINTER 2006/2007

‘To Know the Road Ahead, Ask Those Coming Back’

— Chinese proverb

For newly diagnosed patients with cancer, the uncertainty about what lies ahead can be as difficult as learning that they have cancer. Patients ask themselves questions such as “How do I tell my children?” and “What can I expect from treatment?” and “Is there anyone out there who knows what I’m going through?” The Kimmel Cancer Center Buddy Program helps these patients get answers – from someone who has been there.

The Buddy Program matches patients with trained volunteers who have

survived cancer. They provide short-term support and guidance over the telephone. The Buddy Program, now in its seventh year, has made more than 800 patient-Buddy matches.

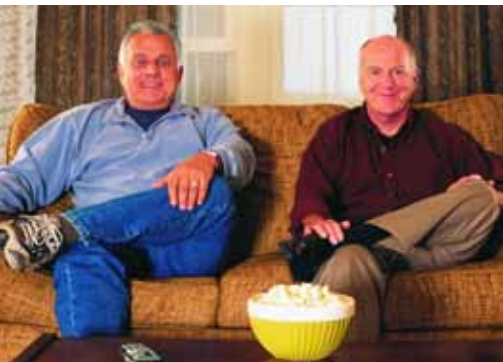
“When it comes to cancer, we find that even the most close-knit families sometimes need outside help – and who better to provide that support than others who have been there?” said Joy Soleiman, Clinical Administrator of the Kimmel Cancer Center.

As Ms. Soleiman puts it, “Buddies have been down the road that newly diagnosed cancer patients are just beginning to travel.”

And the Kimmel Cancer Center Buddy Program is helping these travelers connect with each other – for support, for sharing, for the future.

The Kimmel Cancer Center at Jefferson offers the following support and education programs for patients with cancer and their families:

For a complete list of support groups, see page 11.



Patient Tom Venti, at left, and his Buddy Phil as featured in Jefferson’s prostate cancer ads.

From the Director

Richard G. Pestell, MB, BS, MD, PhD, FRACP



Dear Friends:

In this issue of the *Kimmel Cancer Center at Jefferson Magazine* we have exciting news and announcements.

Thomas Jefferson

University Hospital has consistently ranked in *U.S. News & World Report’s* Best Hospitals survey list in a variety of specialties, and this year we were proud to be ranked among America’s best hospitals for cancer.

I am also delighted to share with you that Jefferson has formed a new Department of Medical Oncology, and that two of its member oncologists – Rita S. Axelrod, MD and Neal Flomenberg, MD – were named to *Philadelphia* magazine’s list of “Top Docs” in 2006. New clinical recruitments continue to build strength in the department, and the new facilities dedicated to the oncology practice at 925 Chestnut Street, and to the Breast Care Center at 1100 Walnut Street, together promise to provide integrated, state-of-the-art care for our patients.

There have been a number of new appointments at the Kimmel Cancer Center, expanding and deepening our ability to combat cancer. Matthew Carabasi, MD, has been appointed Director of Clinical Investigations and Leonard G. Gomella, MD, FACS, has been appointed Director of Clinical Affairs. These new clinical appointments

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Clinical Directors' Views

Clinical Science

I am excited to share with you that the Kimmel Cancer Center at Jefferson is among the first centers in the nation to systemically study the value of cone beam CT in delivering optimized radiation treatment for cancer patients.

During therapy patients might lose weight and, hopefully, tumors may shrink. These changes affect the patient's and the target volume's position during a 4-to-6-week course of therapy. Cone beam CT, a device installed within the radiation treatment suite, creates three-dimensional axial CT slices of a patient's tumor. Radiation oncologists can then

compare these images with initial treatment planning images to determine how precisely focused the radiation set-up actually is.

The Kimmel Cancer at Jefferson continues to lead the way toward better, more effective cancer treatment. Cone beam CT is just one example of our dedication to exploring new and unique enhancements to current treatment methods.



Walter J. Curran Jr., MD
Director of Clinical Science



Clinical Investigations

In our efforts to prevent, treat and ultimately cure cancer, the Kimmel Cancer Center at Jefferson hosts over 100 clinical trials each year. Providing patients with the opportunity to benefit from innovative treatments based on the most recent science is critical to achieving highly effective care. At the Kimmel Cancer Center we are always striving to widen our base of clinical trials by encouraging our scientists and physicians to partner and by

reaching out to patients throughout the Jefferson Cancer Network.

While this is easy to describe, it requires a dedicated staff to coordinate the many interactions that need to occur for this process to go forward. It is my job to make sure that Jefferson patients are offered treatments that reflect both the best as well as safest options available for them. It is my good fortune to have

the opportunity to work with the many dedicated scientists, physicians, and other staff who participate in this process with our patients.

Watch this column for news about new clinical trials and how they may improve cancer treatment or prevention.



Matthew Carabasi, MD
Director of Clinical Investigations

Clinical Affairs

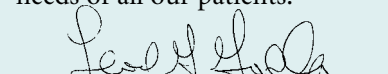
The hallmark of contemporary cancer care is the multidisciplinary team approach to patient care. Surgeons, medical oncologists, radiation oncologists, integrative medical specialists along with oncology nurses and social workers work together to educate our patients about their disease and treatment options. As one of the first multidisciplinary programs in the United States for patients with genitourinary malignancies such as prostate cancer, the Genitourinary

(GU) Cancer Program at the Kimmel Cancer Center at Jefferson has evaluated and treated more than 5,000 patients and, today, serves as a recognized model across the nation for the multidisciplinary approach for urologic and other cancers as well.

Patients can be diagnosed, treated or have therapy recommendations or confirmation of therapy plans made to their referring physician, all in one location, during one visit, under the

supervision of the most highly skilled physicians, using the most advanced technologies and the latest treatments.

Whether it is a standard treatment or the latest clinical trial, the NCI-designated Kimmel Cancer Center at Jefferson provides both state-of-the-art and personalized care to serve the needs of all our patients.



Leonard G. Gomella, MD, FACS
Director of Clinical Affairs



Research Director's Views

I am pleased to bring you information on a recent discovery made by researchers at the Kimmel Cancer Center with direct implications for the treatment of patients with chronic myeloid leukemia, especially those patients in the terminal stage of this disease.

Though enormously successful, the anti-leukemia drug Gleevec has some downsides. Recent studies have linked the drug to heart failure in a small number of patients, and drug resistance continues to be a problem. But now, our laboratory may have found a new way to sidestep such resistance. Kimmel Cancer Center scientists have discovered that by reactivating

a protein that is normally shut off in leukemia and in Gleevec-resistant cancer cells, leukemia development is halted.

The results of this research show great promise for new strategies to treat chronic myeloid leukemia and may also have applications for other leukemias. The next steps are to study how the identified protein can be reactivated in patients with leukemia.

Bruno Calabretta, PhD
Research Director

At center, Kimmel Cancer Center at Jefferson Director Richard G. Pestell, MD, PhD, is flanked by the Center's team, from left: Leonard G. Gomella, MD, FACS; Bruno Calabretta, PhD; Walter J. Curran Jr., MD; and Matthew Carabasi, MD.

New Appointments on the Cancer Team



On July 19, 2006, **Edith Mitchell, MD**, was appointed to the position of Kimmel Cancer Center at Jefferson Director of Minority Affairs. An

advocate of inclusive cancer prevention, Dr. Mitchell recently helped develop the award-winning videos "African-American Women CAN Beat Breast Cancer," and "The Colon Cancer Puzzle: Putting all the right pieces together to beat it." Both videos encourage early screening for the high risk African-American population. ■

In January 2006, the Kimmel Cancer Center team welcomed surgical oncologist **Eugene P. Kennedy, MD**. Dr. Kennedy joins the Department of Surgery of Thomas Jefferson University Hospital and will serve as Assistant Professor of Surgery at Jefferson Medical College.

Before coming to Jefferson, Dr. Kennedy was Assistant Professor of

Surgery at Louisiana State University Health Sciences Center, New Orleans. Prior to that, he was Assistant Chief of Service and Instructor in Surgery at Johns Hopkins Medical Institution in Baltimore. He specializes in gastrointestinal disorders and is an associate member of the American College of Surgeons and a candidate member of the Society of Surgical Oncologists.

While at Johns Hopkins, Dr. Kennedy completed a surgical oncology fellowship, a surgical research fellowship and a general surgery residency. He also served as a Surgical Registrar at Beaumont Hospital in Dublin, Ireland. He received a doctor of medicine degree from the Medical College of Virginia, Virginia Commonwealth University in 1996 and a bachelor of arts degree from the University of Virginia in 1990. ■

Richard W. Haldeman joined the Jefferson team as Chief Financial Officer for the Kimmel Cancer Center at Jefferson in August 2006. Mr.

Haldeman comes to Jefferson from the Cancer Institute of New Jersey where, as Assistant Director of Finance, he managed its \$70 million annual budget. A member of the Healthcare Financial Management Association and the America Institute of Certified Public Accountants, Mr. Haldeman also brings experience with financial management at Rutgers University and Deloitte & Touche LLP, where his clients included Franciscan Healthcare Systems.

Kimmel Cancer Center Director Richard G. Pestell, MD, PhD, praises Mr. Haldeman's expertise in integrating the research and clinical operations needed to spur the Center's financial growth. "Richard brings an outstanding record of success in building sustained growth in clinical and research oncology operations at the Cancer Institute of New Jersey. Jefferson is fortunate to have Mr. Haldeman join our team," says Dr. Pestell. ■





Above: Jefferson's new Breast Care Center
At left: breast cancer survivor Patricia Bainum.

67 Women – 67 Counties

The Kimmel Cancer Center at Jefferson hosted a reception to launch the premiere of *67 Women – 67 Counties: Facing Breast Cancer in Pennsylvania*, a two-week photo exhibit in Philadelphia County celebrating the Life, Courage, Hope and Dignity of women in Pennsylvania who have breast cancer. The free exhibit was sponsored by The Pennsylvania Department of Health, The Pennsylvania Breast Cancer Coalition and the Philadelphia County Exhibit Committee.

Breast Care Center Update

The first phase of Jefferson's new Breast Care Center – *Diagnostic Breast Imaging* – will open soon. The new setting, on the 4th floor at 1100 Walnut Street, will provide high-tech digital imaging in a spacious location with inviting and calming waiting areas. Women coming to the center will receive the latest in radiologist-enhanced images that increase visualization and identification of breast abnormalities. *Diagnostic Breast Imaging* will offer five digital mammography units, three breast ultrasounds, and a separate biopsy room for ultrasound- and mammogram-guided core and stereotactic biopsies.

Richard G. Pestell, MD, PhD, Director of the Kimmel Cancer Center, praises the Breast Care Center's multi-disciplinary focus on providing the best in diagnostic technology and treatment. "Women will have access to expert clinicians who work together so that patients get the highest quality

care conveniently and efficiently," says Dr. Pestell.

In the next phase of development – *Screening Mammography* – which will relocate to the building's lower level, women will have access to digital screening mammograms and, if necessary, a breast MRI. MRI is a rapidly evolving area of breast imaging and Dr. Pestell cites Jefferson as the only area institution with such advanced MRI and PET-CT imaging technology.

A third phase of the Breast Care Center will relocate multidisciplinary services to the Center's third floor, offering a full array of medical and support services.

For more information about Jefferson's Breast Care Center or to refer a patient, call **1-800-JEFF-NOW**, or visit our website at **www.jeffersonhospital.org/breast**.

To schedule an appointment for a mammogram, please call **215-955-5400**.



Jefferson physician and nursing staff paddle near Philadelphia's Boathouse Row to raise funds for Jefferson Breast Care Center in the 5th Annual Dragon Boat Festival on October 7.

To help build the Jefferson Breast Care Center, call toll free **1-877-JEFF-GIFT** or go to **www.KimmelCancerCenter.org**

To Find Out More: **www.KimmelCancerCenter.org**

Tackling Breast Cancer With the Eagles This Fall

Home Games

Football fans supported the Jefferson volunteer sales team by purchasing Tackling Breast Cancer apparel, including the new black, long-sleeve t-shirts, and pink hats, at Eagles home games against Green Bay, Dallas and



“Tackling Breast Cancer” pink hats.



Jacksonville during October. Portions of the proceeds benefited the Jefferson Breast Care Center.

Community Education

Katz Jewish Community Center (JCC) in Cherry Hill, NJ, was the setting for a FREE community breast cancer education program featuring Jefferson Breast Surgeon, Anne Rosenberg, MD. Also on the program was Stephanie Marston, MFT, author of “Chicken Soup for the Soul: Life Lessons for Women – 7 Essential Ingredients for a Balanced Life.” Philadelphia Eagles Mascot SWOOP made an appearance to promote Tackling Breast Cancer and Jefferson’s newly refurbished Breast Care Center.



Here, with SWOOP, from left, are: Breast Surgeons Gordon F. Schwartz, MD, MBA, and Anne Rosenberg, MD; Kimmel Cancer Center Director Richard G. Pestell, MD, PhD; Radiation Oncologist Rani Anné, MD; Chair of Radiation Oncology and Director of Clinical Science at Kimmel Cancer Center at Jefferson Walter J. Curran Jr., MD; and Medical Oncologist and the Kimmel Cancer Center at Jefferson’s Director of Minority Affairs Edith P. Mitchell, MD.

Eagles Score Against Breast Cancer

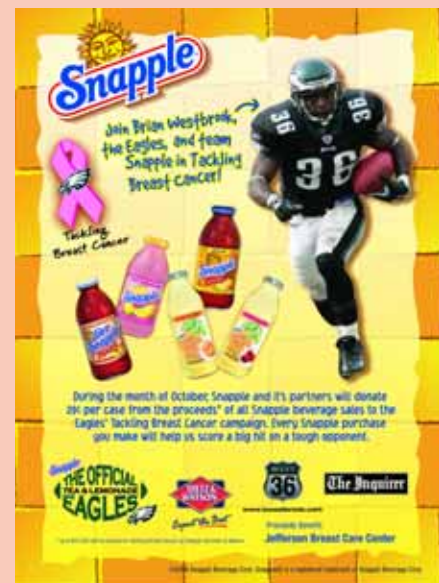
For the third consecutive year, the Eagles Tackling Breast Cancer campaign to fight breast cancer has been a huge success.

Raising close to \$750,000 since its launch, the campaign allocated the funds raised for the last two years to the Jefferson Breast Care Center. During the last 10 days of October, Eagles owners Jeffrey and Christina Weiss Lurie matched the donations raised from the sales of pink ribbon hats and the new pink ribbon shirts which were added this year to the Tackling Breast Cancer line of merchandise. Jefferson volunteers sold hats and shirts at Liberty Place and Norstrom’s Court in the King of Prussia Mall. Jefferson’s staff, students and employees supported the campaign by purchasing the apparel at Jefferson’s

Medical and Health Science Bookstore and at the Hospital’s Gift Shop.

“The fans continue to make this campaign an amazing success and have helped bring immeasurable awareness to this important cause,” said Christina Weiss Lurie, Philadelphia Eagles owner and president of Eagles Youth Partnership. “We have all been touched in some way by breast cancer and we should all be proud of these accomplishments that will directly impact research and patient care in the Philadelphia area.”

“On behalf of the staff at Thomas Jefferson University Hospital and the patients we treat, I thank the Eagles and their fans for their incredible generosity,” said Thomas J. Lewis, Hospital President and CEO.



During the month of October, Snapple® and its partners donated twenty cents per case from the proceeds of all Snapple beverage sales to the Eagles’ Tackling Breast Cancer Campaign to benefit Jefferson Breast Care Center – scoring a big hit on a tough opponent.

To Give, Call: 1-877-533-3443



Jefferson's Richard C. Wender, MD Now President of American Cancer Society



Richard C. Wender, MD, Alumni
Professor and Chair,
Department of Family
and Community
Medicine, Jefferson
Medical College and

Thomas Jefferson University Hospital, is the first primary care physician to lead the American Cancer Society (ACS). He succeeds Jefferson Medical School graduate Carolyn D. Runowicz, MD, JMC 77, an internationally recognized gynecologic cancer expert

and Director of the Carole and Ray Neag Comprehensive Cancer Center at the University of Connecticut Health Center in Farmington, CT.

Dr. Wender is Chair of the ACS Incidence and Mortality Committee and a member of the editorial advisory boards for the ACS journal *CA: A Cancer Journal for Clinicians and Patient Care*.

Dr. Wender became Chair of Family Medicine in 2002. Noted for his

warmth and enthusiasm, he believes in the positive impact of humor in the healing process. A popular lecturer, Dr. Wender is admired and well respected by students, colleagues and patients. On October 19th, Dr. Wender received the prestigious Cancer Control Award from the ACS Pennsylvania Division.

He has published extensively on such topics as cancer, diabetes and humor in medicine in professional journals including, *Cancer, Journal of Family Practice* and *Archives of Family Medicine*.

KUDOS

Neal Flomenberg, MD, has been named a winner of the 2006 Science Alumni Award at Penn State. The Outstanding Science Alumni Awards were established by the Board of Directors of the Eberly College of Science Alumni Society in 1997 to recognize outstanding science alumni for their leadership in science and for the impact they have had and will continue to have on society and on their professions. It recognizes alumni who have a record of significant professional achievements in their field, and who are outstanding role models for the current students in the college.

Dr. Flomenberg, 74 BS Sc, Professor of Medicine and Microbiology and Immunology at Jefferson Medical College, is the Director of the Hematologic Malignancies and Blood & Marrow Transplant Program as well as Interim Chair of the Department of Medical Oncology at the Kimmel Cancer Center at Jefferson. He has served as the head of the Hematologic Malignancies Program since he joined Jefferson in 1994, at which time he

initiated the blood and marrow transplantation efforts.

He has served as head of the Medical Oncology Division since 2001. In 2006, Dr. Flomenberg received a joint lifetime achievement award from the Leukemia-Lymphoma Society's Eastern Pennsylvania and Southern New Jersey chapters for "contributions to mankind." ■

At the prestigious American Society for Therapeutic Radiology and Oncology (ASTRO) meeting held in Philadelphia at the Pennsylvania Convention Center, the following Jeffersonians became fellows of the Society and received their FASTRO designation:

- **Naralingham Suntharalingam, PhD, FACR**
- **James M. Galvan, DSc**

This designation is held by Radiation Oncologists who have been part of the Society for at least 20 years, served in a leadership role for the organization and have made a significant contribution to the field of radiation oncology. ■

Congratulations to Kimmel Cancer Center at Jefferson physicians who were named *Philadelphia* magazine's "Top Docs." They are:

Christopher V. Chambers, MD
Adolescent Medicine

Richard C. Wender, MD
Family Medicine

Anthony J. DiMarino Jr., MD
Gastroenterology

Norman G. Rosenblum, MD
Gynecologic Oncology

Rita S. Axelrod, MD
Medical Oncology

Neal Flomenberg, MD
Medical Oncology

David Andrews, MD
Neurological Surgery

William M. Keane, MD
Otolaryngology

Walter J. Curran Jr., MD
Radiation Oncology

Mitchell Machtay, MD
Radiation Oncology

Gordon F. Schwartz, MD
Surgery

Demetrius H. Bagley Jr., MD
Urology

Leonard G. Gomella, MD
Urology

Chinese Visitors

Joseph S. Gonnella, MD, Director of the Center for Research in Medical Education and Healthcare, recently hosted visitors from Tianjin Medical University. Xishan Hao, MD, FACS, President, and Professor Fenglin Guo, Director of International Relations, enjoyed the opportunity to tour the Kimmel Cancer Center and meet with Director, Richard G. Pestell, MD, PhD.

Dr. Gonnella has been appointed Chairman of the Advisory Committee of Foreign Experts of Tianjin Medical University in China for three years. This committee plays a major role in

fostering the university's key discipline which integrates traditional Chinese medicine with Western medicine.

Tianjin Medical University was formally established on June 16, 1951, and was the first medical university approved by the State Council after the founding of the People's Republic of China. It was one of the first universities approved by the Chinese Ministry of Education to accept overseas students. ■

Australian Ambassador

Richard G. Pestell, MD, PhD, Director of the Kimmel Cancer Center at Jefferson, hosted a visit of Australian



Here, from left, are: Dr. Pestell, Mrs. Richardson and Ambassador Richardson with University President Robert L. Barchi, MD, PhD.

Ambassador Dennis Richardson and his wife, Betty. During their stay, Ambassador Richardson and Dr. Pestell explored the possibility of future collaboration between Australia and the United States, including building international clinical trials, screening projects and research. ■

PET/CT Diagnostic Imaging Update

PET/CT diagnostic imaging is helping the Kimmel Cancer Center at Jefferson team detect malignant lesions, including breast cancer, earlier than ever before. PET/CT provides Jefferson doctors with a powerful tool in directing the course of initial treatment for breast cancer, finding metastases, and accurately staging previously diagnosed disease.

PET/CT combines two scanners into one – the PET (Positron Emission Tomography), which shows metabolism and the function of cells, and the CT (Computed Tomography), which shows detailed anatomy. The combined scanning gives Jeff's physicians highly defined, 3-D images inside the human body.

“The PET/CT scanner at Jefferson Center City Imaging provides superior image quality by offering the highest resolution in the industry” says Vijay Rao, MD, Chair of Radiology at Thomas Jefferson University Hospital.

The definitive information PET provides also helps doctors avoid unnecessary surgery by identifying benign abnormalities. Since it can distinguish metastatic lesions from scar tissue and cysts, PET/CT prevents unnecessary treatments and plays a vital role in patient management.

PET/CT proves to be consistently more accurate than alternative tests for staging distant disease in breast cancer, excluding brain and osteoblastic bone metastases. It's an important new imaging option for Jefferson oncologists and clinicians treating patients with breast cancer.

“I believe PET/CT is the single best test for evaluating and restaging

Left: sample of a PET/CT scan.



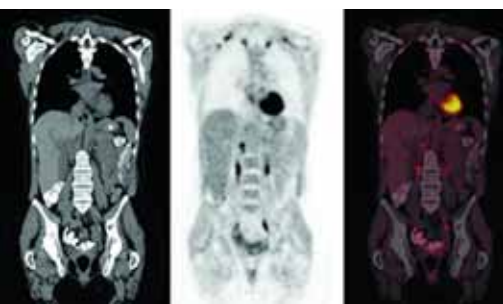
At Jefferson Center City Imaging's launching of its PET/CT scanner, from left, are: former Jefferson Chair of Radiology David Levin, MD; Jefferson's Chair of Radiology Vijay Rao, MD; the Walter J. Curran Jr., MD Associate Professor of Radiation Oncology Mitchell Machtay, MD; Director of Nuclear Medicine and PET Charles Intenzo, MD; and Radiologist Madhukar Thakur, PhD.

abnormalities following treatment for breast cancer,” says Charles Intenzo, MD, Director of Nuclear Medicine and PET.

PET/CT Medicare Update:

All cancers are now covered under the National Oncologic PET Registry (NOPR)!

Jefferson Center City Imaging (JCCI) is a registered facility with Medicare's National Oncologic PET Registry. The NOPR significantly expands coverage for PET to include cancers not presently eligible for Medicare reimbursement. This means more Medicare patients will have the benefit of a PET scan.



Jefferson-Myrna Brind Center of Integrative Medicine

The Jefferson-Myrna Brind Center of Integrative Medicine at Thomas Jefferson University Hospital reaches out to patients with a message of healing body, mind, and spirit. The center combines conventional medicine with a wide range of natural healing techniques to maximize quality of life and empower patients with chronic illnesses such as cancer to take an active role in their health.

Daniel A. Monti, MD, is the Director and a national expert on mind-body

medicine. Under his leadership, the Center has completed the first phase of a National Institutes of Health-funded clinical trial the Center developed for patients with cancer that incorporates mindfulness meditation and artistic expression.

“We want to provide options that integrate all aspects of the person,” explains Dr. Monti. “And sometimes that involves using more than one modality. For example, for chronic pain, combining standard

conventional medicine with massage therapy and our stress reduction program can make all the difference in the world.”

“The driving force behind integrative medicine programs,” he adds, “is the collaborative relationship between the patient and the physician.”

To make an appointment at Jefferson-Myrna Brind Center of Integrative Medicine or to learn more about patient services, call 215-955-2221 or 1-800-JEFF-NOW.

Jefferson Scientists Identify Gene Mutation Linked to Breast Cancer

A team of Jefferson researchers, led by cell biologist Michael P. Lisanti, MD, PhD, Professor of Cancer Biology at Jefferson Medical College, and Richard G. Pestell, MD, PhD, Director of the Kimmel Cancer Center at Jefferson, have discovered evidence suggesting that a mutation in a gene that normally helps block the formation of breast tumors could play a role in the initiation of a major form of breast cancer.

Working with researchers at the Albert Einstein College of Medicine in New York, the Jefferson research team found that a known mutation in the Caveolin-1 gene is present in about 19 percent of all breast cancers that are fed by estrogen – so called “estrogen receptor-positive” cells. The group also discovered six new Caveolin-1 mutations associated with estrogen-driven breast cancers. Caveolin proteins play important roles in cell communication and are also

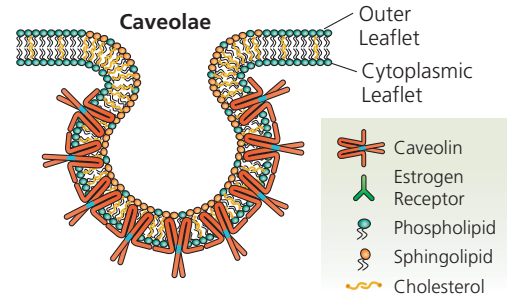
involved in a number of diseases and conditions, such as cancer, atherosclerosis, diabetes, Alzheimer’s disease and muscular dystrophy.

“As many as nearly 35 percent of such breast cancers may carry Caveolin-1 mutations,” says Dr. Lisanti. And he adds that patients with breast cancer who are estrogen receptor-positive and who have caveolin mutations are much more likely to have a cancer recur than are such individuals who don’t carry caveolin gene mutations.

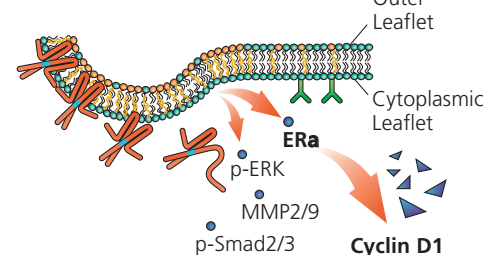
The research, reported in the June 2006 in the *American Journal of Pathology*, opens up the possibility that Caveolin-1 mutations may be involved in the development of estrogen-positive human breast cancer, which account for about 70 percent of all breast cancers.

Diagram tracing the development of a Caveolin-initiated breast tumor.

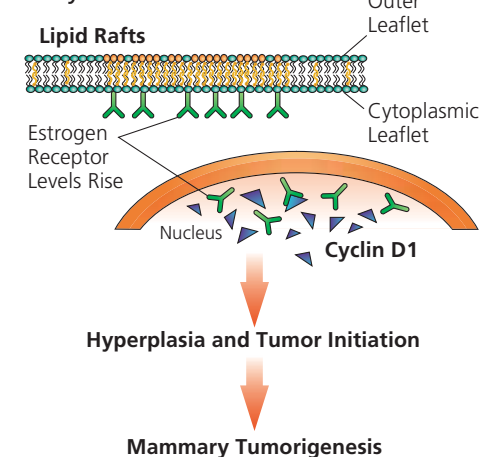
A. Lipid Rafts and Caveolae



B. Cav-1 Gene Inactivation



C. Cyclin D1 Levels Rise



Jefferson Scientists Explain Cancer Cell Changes

Kimmel Cancer Center at Jefferson and Jefferson Medical College researchers have found how a gene can dim the power production in the cell and, in turn, increase its cancer-producing activities. The findings published in the journal *Molecular and Cellular Biology* may point to new therapeutic strategies against cancer.

Two new studies have provided stunning evidence suggesting that cyclin D1 – which is found in up to eight times normal amounts in half of all breast cancers – can cause a shift in the cancer cell’s metabolism, changing its focus from energy production to excessive growth and proliferation.

Kimmel Cancer Center Director Richard G. Pestell, MD, PhD, and colleagues showed for the first time that cyclin D1 – normally involved in promoting cell division – inhibits the size and activity of the cell’s energy-making mitochondria. The mitochondria are called the cell’s “powerhouse” because they produce about 90 percent of the body’s energy.

In a separate report, published in the *Proceedings of the National Academy of Sciences (PNAS)*, Dr. Pestell and a different team identified the mechanism behind cyclin D1’s mitochondrial takeover.

Taken together, the research shows that the inhibition in the cell’s mitochondria leads to increased proliferation of cancer cells.

Dr. Pestell notes that while scientists have long suspected a link between mitochondrial malfunction and

cancer, the mechanisms haven’t been well understood. When cells turn cancerous, they shift the way they metabolize glucose and other substrates. The researchers believe that their findings about cyclin D1 are part of such a mechanism.

Exciting New Treatment Prospects

This work provides novel insights into how these two types of abnormalities in cancer cells might be related and may suggest new types of cancer therapies.

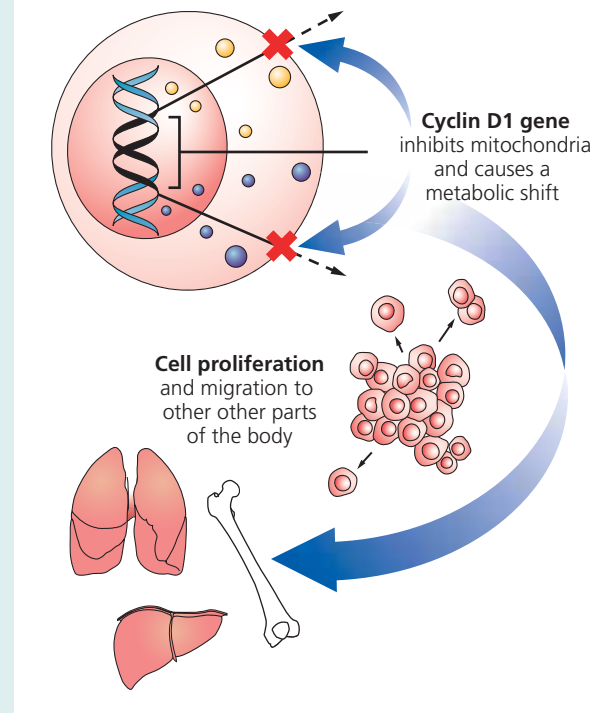
“As we develop therapies that target changes in metabolism, it allows us to develop therapies selective for the cancerous cells only. This finding is therefore important in improving the quality of life for patients with cancer,” says Dr. Pestell.

NIH Honors Hilary Koprowski, MD – Grantee of 50 Years

Please join us in congratulating Dr. Koprowski, Professor of Cancer Biology at the Kimmel Cancer Center at Jefferson, for his many important scientific contributions to biomedical research spanning the spectrum from rabies to polio and cancer over 50 years of continuous National Institutes of Health (NIH) funding.

Dr. Koprowski’s pioneering research in polio and rabies has significantly advanced vaccine research. His research in the late 1940s resulted in the first oral polio vaccine that was used extensively to immunize people on four continents. In the late 1970s, a passionate interest in rabies led Dr. Koprowski to develop a new tissue culture-based vaccine.

Dr. Koprowski also pioneered the development of monoclonal antibodies



Kimmel Cancer Center at Jefferson researchers have found how a gene can inhibit a cell’s mitochondrial growth and energy production and, in turn, increase its cancer-producing activities.

used to detect cancer antigens and for cancer immunotherapy, and he successfully used plants to produce vaccines and antibodies.

Dr. Koprowski is currently President of the Biotechnology Foundation Laboratories, Inc. and Director of the Center for Neurovirology at Jefferson.

His contributions to scientific knowledge were lauded when he was honored in November at the 2006 International Meeting of the Institute of Human Virology with an award presented by Anthony Fauci, MD, Director of the National Institute of Allergy and Infectious Diseases.

We honor his remarkable achievement and wish Dr. Koprowski many more successes in the years to come.



Prostate Cancer Screening

To promote awareness about prostate cancer for community members, Kimmel Cancer Center at Jefferson and Jefferson Hospital sponsor annual screenings for men during Prostate Cancer Awareness Week in September. Held at



Jefferson since 1989, the program has provided FREE screenings for

approximately 7,000 men. The nearly 20 percent decline in deaths from prostate cancer – the number one cancer in men – over the last decade is attributed to awareness and screening efforts. Supporting this effort were: Jefferson Medical College students, physicians, nurses and members of the Hospital’s Chinese Health Information Center who screened and provided translation services to members of the Chinese community.

Tobacco-Made Antibodies Target Cancer Cells

When virologist Hilary Koprowski, MD, reported in June in *Proceedings of the National Academy of Sciences* how he and colleagues used tobacco plants to produce cancer-fighting monoclonal antibodies that recognize and hunt down breast and colorectal cancer cells, the work represented another step toward a goal he has been pursuing for the last decade. While therapeutic uses for such antibodies continue to grow at a rapid rate, production has failed to keep pace. Dr. Koprowski, Professor of Cancer Biology at Jefferson Medical College and Kimmel Cancer Center at Jefferson, contends that “plants are safer, less expensive and easier to use” than currently used methods in the laboratory and with animals. Dr. Koprowski believes this technology has the potential to become the main way that therapeutic antibodies are made in the future.

It only takes a moment to make the difference of a lifetime. Make an investment today.



VOLUNTEER Greet and engage guests at events, assist with various tasks for patient advocacy programs, provide clerical support, interact with patients, or meet other specialized needs.

IN-KIND GIFTS Donate equipment, services or supplies that could help to provide comprehensive care to patients and promote research discoveries.

FINANCIAL GIFTS Provide financial support to promote the development of innovative and creative techniques for the detection, prevention, and treatment of cancer that might not otherwise be funded.

To receive information about Kimmel Cancer Center events or to be added to our mailing list, please email info@kimmelcancercenter.org or call **215-955-6929**.

Advocacy and Survivorship Committee

Comprised of individuals treated in the Kimmel Cancer Center (and family members of those treated), the Advocacy and Survivorship Committee serves to advise Cancer Center Physicians and Administrators on patient related issues. For more information, please call **215-955-1160**.

Buddy Program

The Buddies in our program are trained volunteers who have been through cancer treatment themselves and now provide short-term one-on-one support and information over the telephone to others facing cancer. If you would like to talk to a Kimmel Cancer Center Buddy, please call **215-955-8370**. The Program Coordinator will explain the program and then match you with a buddy who is similar to you in terms of cancer diagnosis, treatment, and other criteria such as age and gender.

Special Events

Jefferson's Kimmel Cancer Center hosts several special events each year, including an annual Celebration of Life, and an annual educational conference entitled "Life After a Cancer Diagnosis." For more information, please call **215-955-8370**.

Navigating the New Normal

This program, launched with sponsorship of the Lance Armstrong Foundation, is for young adults between the ages of 18 and 40 living with cancer or with a history of cancer. The program offers individual counseling and consultation with an oncology social worker, a Buddy Program, a quarterly lecture series and a networking group. More information is available online, as well as a current lecture schedule. You may also call **215-955-8370**.

Current Topics

This monthly educational program is for people facing all types of cancer. At each meeting an expert in the field presents a topic related to cancer detection, treatment, recovery or psychosocial issues. Ample time is given for questions, answers and networking. These meetings are held on a Wednesday from 12 to 1:30 pm. A current schedule is available, as well as online registration. For more information, please call **215-955-8370**.

Facing Breast Cancer... With Information and Support

This monthly informational group, held on a Thursday from 12 to 1:30 pm, gives women the opportunity to learn the latest information about breast cancer treatment, detection, and prevention from leading experts in the field. A current schedule is available, as well as online registration. For more information, please call **215-955-8370**.

A Place for Me

This is a group program for children whose parent or grandparent has cancer. Using art, games, and other activities, children are helped to understand and to cope with the diagnosis of cancer in the family. A separate group is held for teenagers and a group for parents and grandparents is held concurrently. For more information, please call **215-955-8370**.

Man to Man

This program, co-sponsored by the American Cancer Society, is for men diagnosed with prostate cancer or who are interested in learning more about the disease. Held on a Wednesday from 12 to 1 pm, each meeting features a guest lecturer who

speaks on an issue related to prostate cancer. A current schedule is available, as well as online registration. For more information, please call **215-955-8370**.

Look Good, Feel Better

Sponsored by the American Cancer Society, this workshop helps women to understand and care for the changes which can occur in skin and hair during treatment for cancer. Specially trained cosmetologists teach women hair/wig styling techniques, skin care, and make-up tips. A current schedule is available, as well as online registration. For more information or to register, please call **215-955-8370**

Radiation Therapy Information Session

This education and support program is for individuals receiving radiation therapy and is held every Thursday from 11 am to noon in the Simon Kramer Conference Room (Room G312) 111 S. 11th Street. It is recommended that patients attend this session either prior to starting or in the first few weeks of treatment. Physical and psychosocial effects of radiation therapy are discussed. For more information, please call **215-955-8370**.

Delaware Valley Brain Tumor Group

This monthly group is for individuals diagnosed with a brain tumor and their families. Patients and families can share information, gain insight and develop coping strategies to face the challenges associated with living with a brain tumor. A current schedule is available, as well as online registration. For more information, please call **215-955-4429**.



From the Director *(continued)*

broaden the Kimmel Cancer Center's expertise in multidisciplinary clinics and clinical trials. I am also pleased to announce that Edith P. Mitchell, MD, has been appointed Director of Minority Affairs. A national leader, she has developed educational materials for the community to increase awareness for cancer screening, encouraging our patients to take ownership of their health. Links to some of these materials can be found at www.kimmeltcancercenter.org.


We are proud of our Buddy Program and are hiring new staff to support all of our patient support programs at the Kimmel Cancer Center. These programs provide a critical link to information for patients and their families diagnosed with cancer, both on the Jefferson campus and out in the community.

Key new discoveries made at the Kimmel Cancer Center have been published over the last few months. These include improvements in the diagnosis and treatment of colon and bladder cancer; a new target for breast cancer treatment; a novel gene mutation in breast cancer – perhaps the most common genetic mutation described to date; and genetic tests to advance treatment for breast and brain cancer.

International visitors to the Kimmel Cancer Center reflect the growing role we are playing in the international cancer arena. The Kimmel Cancer Center is now U.S. headquarters for the International Network for Cancer Treatment and Research. This global network will provide a unique platform to influence cancer prevention in the developing world.

The Kimmel Cancer Center at Jefferson is also looking for volunteers. We are forming a Board of Advisors to work on projects like the new Breast Care Center, annual fundraising events, and increasing support for the Kimmel Cancer Center. Please join us in our events, patient support groups, and advisory boards. Please join us in crafting a new vision for cancer research and care in Philadelphia!

We wish you happy holidays and a healthy New Year!



Richard G. Pestell
 MB, BS, MD, PhD, FRACP
 Director
 Kimmel Cancer Center at Jefferson

Winter 2006/2007
 Kimmel Cancer Center ^{at} Jefferson
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