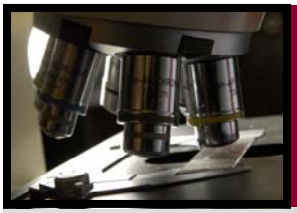

University of Chicago Cancer Research Center

In the News: Our Members in the Media

The University of Chicago Cancer Research Center (UCCRC) publishes this newsletter periodically to provide its members, University of Chicago Cancer Research Foundation members, and other associates with informative articles or press releases regarding cancer and research by our members. If you wish to include a media story in the next issue, please e-mail us at pbutera@medicine.bsd.uchicago.edu.

DECEMBER 5, 2008

American Cancer Society Honors Outstanding Individual Contributions To Fight Against Cancer

States News Service
November 21, 2008

The following information was released by the American Cancer Society:

Four Americans whose unique talents and dedication have helped reduce the burden of cancer received prestigious awards from the American Cancer Society for their work in volunteerism, humanitarianism and distinguished service. The Society, the nation's largest voluntary health organization, honors individuals whose work is helping to make the organization's mission of eliminating cancer as a major health problem a reality. In gratitude for their inspirational service to mankind, the Society's National volunteer leaders presented these annual awards to these outstanding individuals in ceremonies during the organization's annual meeting in New York City.

Michelle M. Le Beau, Ph.D. and Frances M. Visco received the Distinguished Service Award in recognition of major contributions and commitment in the field of cancer. Phylecia D. Wilson, of Clarkesville, Georgia, was awarded the National Volunteer Leadership Award in recognition of long and exemplary volunteer service to the Society. The late Florence S. Wald, R.N., M.N., M.S., F.A.A.N. received the Humanitarian Award for her pioneering efforts in hospice care and her outstanding contributions to the nursing practice.

Michelle M. Le Beau, Ph.D., of Chicago, Illinois, Professor of Medicine, and Director of the University of Chicago Cancer Research Center, received the Distinguished Service Award for her extraordinary work in therapy-related cancers. Dr. Le Beau has also shown leadership in identifying recurring genetic abnormalities in hematological cancers, and for her groundbreaking research leading to, among other findings, the recognition that there are several distinct genetic and clinical subtypes of therapy-related myelodysplastic syndrome and acute myeloid leukemia that are closely associated with the nature of the preceding cancer treatment. Dr. Le Beau has published more than 410 papers on cytogenetic abnormalities in human leukemias, and is board-certified in clinical cytogenetics by the American Board of Medical Genetics.

Michelle Le Beau, PhD, with Otis Webb Brawley, MD, chief medical officer of the ACS and alumnus of the Pritzker School of Medicine.

Frances M. Visco, of Philadelphia, Pennsylvania, received the Distinguished Service Award for her unwavering commitment to breast cancer advocacy and women's health issues. Notable accomplishments for Ms. Visco include founding and leading the National Breast Cancer Coalition (NBCC) and championing cancer research funding on the environmental causes of cancer. Ms. Visco is also known for her significant role in gaining the U.S. Department of Defense's support of cancer research and for her leadership on the President's Cancer Panel, National Action Plan on Breast Cancer, and National Cancer Policy Board. Ms. Visco has appeared frequently on national television discussing women's health issues and has testified before various Congressional committees and panels. She is also a twenty-year breast cancer survivor, and her women's health advocacy efforts have served as an inspirational force in the fight against cancer.

Phylecia D. Wilson, of Clarkesville, Georgia, received the National Volunteer Leadership Award for her more than three decades of invaluable service to the American Cancer Society in fundraising, cancer control, and patient services. Her leadership at the local and nationwide levels of the American Cancer Society Relay For

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Inside Stories

THE UNIVERSITY OF CHICAGO
CANCER RESEARCH CENTER

Cancer Disparities: A Biological and Psychosocial Perspective

NCI Cancer Bulletin
November 18, 2008

While it is clear that there is a relationship between poverty, poor health, and mortality, a possible corollary to this pattern has emerged: Regardless of socioeconomic status, minorities have worse health outcomes than their white counterparts when it comes to diseases like breast cancer, prostate cancer, and diabetes. In trying to understand these disparities, researchers can find themselves veering toward complex issues that stray from biomedical science and into the social sciences.

In 2003, four institutes at NIH, including NCI, funded eight Centers for Population Health and Health Disparities (CPHHD) to address this type of cross-disciplinary research, the cancer-related portions of which are overseen by staff in NCI's Division of Cancer Control and Population Sciences (DCCPS).

"These interrelated projects are scientifically ambitious because they address a more comprehensive set of pathways than traditional biomedical studies," says DCCPS Director Dr. Robert Croyle. "If the evidence suggests that looking at behavioral, environmental, and economic variables is an essential adjunct to biology, we may be on the way to resolving long-standing debates over which factors are necessary to account for health outcome disparities."

Four studies underway through the CPHHD initiative at the University of Chicago focus on the experience of 230 African American women living on Chicago's South Side who were newly diagnosed with breast cancer.

"Black women in the United States are twice as likely as whites to die from breast cancer that occurs before menopause," said Dr. Sarah Gehlert, who directs the CPHHD project at the University of Chicago. "This mortality gap has been known for years, but we haven't discovered any racial disparity in germ-line mutations for breast cancer - mutations that, in any case, don't explain even 10 percent of breast cancers," she adds. Instead, since cancer is a multi-step process, she reasons that numerous health behaviors and environmental factors are likely to cause changes that are not inherited but can persist as cells divide. "Ultimately the CPHHD initiative and other trans-disciplinary studies will begin to point us to interventions that truly affect group health differences," she says.

Suzanne Conzen, MD

In 2000 Dr. Suzanne Conzen, a colleague of Dr. Gehlert's at the University of Chicago, was looking into apoptosis - or induced cell suicide - in breast cancer. She reasoned that if mammary epithelial cells were proliferating abnormally, they must have found a pathway that enabled them to evade apoptosis and survive.

Research in her lab eventually showed that this survival pathway may be tied to glucocorticoids (GCs), neuroendocrine hormones produced when a person is under stress. "This surprised us," said Dr. Conzen, because GCs, which flood the body in response to stress, induce apoptosis in some cell types, an observation that has been exploited in the treatment of lymphomas.

Sarah Gelhert, PhD

However, in experiments with breast epithelial cancer cell lines, Dr. Conzen's lab found that prolonged exposure to elevated GC concentrations inhibited apoptosis through the activation of GC receptors, which was then associated with the expression of several "survival genes" - *SGK1* and *MKP1,* for example - that interfered with apoptosis.

But further insight may be gained by looking at social factors, such as the neighborhoods the women live in, explained Dr. Gehlert. "We're only beginning to understand the causal pathways through which social context contributes to health disparities," she said.

At the community level, many studies have documented an association between neighborhood context (including the rates of violent crimes, the lack of, or availability of, social supports/networks, and factors in the built environment) and specific health outcomes, such as depression and cancer. "People engage, form relationships, and leverage resources based on how they perceive and fit into sur-

(Please turn to p. 5)

What a Cancer Doctor will (Or Might Not) Tell You

Star-Ledger
November 25, 2008

John Natale remembers his doctor's words as if they were spoken just yesterday. "He came in and told me the medicine was not working and that nothing further could be done," said Natale, 57, of New Providence, who is terminally ill with liver cancer.

A bricklayer by trade and the father of three grown children, Natale said he'd rather know the truth than have the doctor sugarcoat his prognosis. "He told me just what I wanted to know and I then could fill in my own blanks," said Natale, who was admitted to Center for Hope Hospice & Palliative Care in Scotch Plains in October.

A study released yesterday suggests Natale's experience is not unusual. Of the more than 700 oncologists who participated in the study, the overwhelming majority said they routinely level with their patients about the severity of their cancer. The cancer specialists surveyed were less forthcoming in telling patients how long they likely have to live, but admit they would want that information themselves.

"There are lots of places where improvements could be made," said lead study author Christopher Daugherty, an associate professor of medicine at the University of Chicago. "This is at least holding up a mirror to oncologists, saying, 'This is how you appear to be.'"

Doctors have not always been so forthcoming with their patients, according to the study: Until the late 1970s, physicians were often reluctant to disclose a cancer diagnosis and were seldom willing to discuss a patient prognosis.

"Physicians seem to be reluctant to disclose grim prognostic information for the same reasons they had traditionally withheld a diagnosis, fearing that such information would psychologically damage patients' hopes to survive," according to the study, which was published today in the Journal of Clinical Oncology.

Less than half of the 729 oncologists surveyed -- just 43 percent -- reported that they "always" or "usually" give an estimate of how long a patient is expected to live, while 57 percent said they "sometimes," "rarely" or "never" give such a time frame.

There may be a good reason: Even an estimate based on the best medical knowledge available can be way off base. "The way we are taught in medical school is, 'How dare you be wrong,'" said Frank Filipetto, a professor at the University of Medicine and Dentistry of New Jersey who teaches students how to communicate bad news to terminally ill patients.

In the study, 73 percent of doctors said they had received no formal training in prognosis communication, while others described their training as inadequate. Filipetto, a family physician who graduated from medical school in 1990, said he can attest to that, recalling his early experience with patients.

"It was very uncomfortable and I didn't know whether what I was doing was right or not," said Filipetto, who is vice chairman of family medicine at the UMDNJ-School of Osteopathic Medicine in Stratford. "I was flying by the seat of my pants."

The study found no consensus on how best to broach the subject of a patient's prognosis. Among the oncologists surveyed, only about half said they will only offer a prognosis if the patient indicates they want to know. About 40 percent said they believe a patient should always know the outlook, even if he or she expresses the opposite preference.

"I'm supposed to respect their preferences, and yet, Western medicine and medical ethics say a patient should understand in order to make informed decisions...," said Daugherty, admitting that this reconciliation can be difficult.

But just because a patient says they want to know their fate doesn't necessarily mean they are prepared to handle the news. "When I told a patient she had only about six to nine months, the patient walked out of my office, hysterical and crying, saying she would never come back again and asking how someone could be that callous," said Michael Scoppetuolo, vice president of medical affairs for Saint Barnabas Hospice and Palliative Care. "I felt very bad."

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EDITOR'S NOTES:

This issue of "In the News" highlights the important contributions our members and staff are making in all phases of cancer research and outreach.

Michelle Le Beau's, PhD, major contributions and commitment to the field of cancer are highlighted on p. 1. We want to congratulate her on receiving the Distinguished Service Award from the American Cancer Society.

The article on p. 2 discusses the initiatives of Sarah Gelhert, PhD, and Suzanne Conzen, MD to understand the effect of disparities in the socioeconomic background of cancer patients. Their research highlights an increasingly sophisticated approach to the study of social context and its influence on cancer.

The article on p.3 discusses the intricacies of communication between cancer doctors and their patients.

On p. 4, the University of Chicago Cancer Research Foundation's recent Black and White Gala is discussed. With a long tradition of service, the UCCRF has supported research for 61 years to investigate the cause, prevention, treatment, and cure of cancer.

Andy Minn, MD, PhD, and his team are featured on p. 5. His work to discover a "genetic signature" that could predict whether certain varieties of cancers would respond to the most common treatments is discussed in an article focusing on personalized cancer treatment.

American Cancer Society Honors Outstanding Individual Contributions To Fight Against Cancer (Con't)

(Continued from p.1)
Life community fundraising and mobilization movement has earned her the Relay For Life Hall of Fame award in 2001, which only four other volunteers have received. Ms. Wilson has worked tirelessly to motivate people nationwide to become cancer advocates through her involvement with the American Cancer Society Cancer Action NetworkSM and the national and Georgia Public Policy Committee, and has inspired countless people as a cancer survivor and spokesperson.

The late Florence S. Wald, R.N., M.N., M.S., F.A.A.N., of Branford, Connecticut, received the Humanitarian Award for her pioneering efforts in hospice care and her outstanding contributions to the nursing practice. Dr. Wald's commitment to providing comfort, dignity, and high-quality end-of-life care for all patients has made her a driving force in the hospice movement. Dr. Wald is credited with bringing the hospice movement to the United States from Europe, and establishing the first hospice unit in the United States. Her role in reshaping nursing education to focus on patients and their families has changed the perception of hospice care in this country.

The American Cancer Society is dedicated to eliminating cancer as a major health problem by saving lives, diminishing suffering and preventing cancer through research, education, advocacy and service. Founded in 1913 and with national headquarters in Atlanta, the Society has 13 regional Divisions and local offices in 3,400 communities, involving millions of volunteers across the U.S.

Black and White Ball Raises $800,000 to Pursue Breakthroughs in Cancer Research

Barbara Sessions, President of the Women's Board (center) poses with co-chairs Nalisa Ward (left), and Shelley Johnstone Paschke (right).

UCMC Newsroom
November 17, 2008
The University of Chicago Cancer Research Foundation Women's Board raised $800,000 at its "Black and White Ball." The proceeds will be used to help discover new cancer treatments.

More than 500 supporters attended the ball held at the Four Seasons Hotel because they recognized that continued funding is needed in order to make progress in treating cancer.

The ball was part of the Women's Board's 42nd Annual Grand Auction Gala. The event was modeled after Truman Capote's Black and White Ball in 1966 when 500 masked guests celebrated in New York City's Plaza Hotel Grand Ballroom--a legendary event that was the talk of the social season.

At the Cancer Research Foundation's black-tie event, sponsored by Tiffany & Co. and American Airlines, masked women and gentlemen dressed to the nines enjoyed an evening of mystique and glamour.

"It was an extraordinary evening that was made even more meaningful by the fact that these funds will go to research that will make tomorrow's important discoveries possible in the war against cancer," event co-chair Nalisa Ward said.

The Grand Auction portion of the evening featured an array of prizes, including a stunning platinum and diamond necklace by Tiffany & Co. valued at $25,000, as well as trips to Moscow and Tokyo donated by American Airlines. Everlands provided a week's stay at the Lone Mountain Ranch in Big Sky, Montana, and renown chef and James Beard Award winner Art Smith auctioned off dinners. Shelley Johnstone Paschke also cochaired the Black and White Ball. Barbara Sessions is president of the Women's Board.

With a long tradition of service, the University of Chicago Cancer Research Foundation has supported research for 61 years to investigate the cause, prevention, treatment, and cure of cancer. It has aided virtually every cancer program at the University of Chicago. Funds provided by the foundation have helped University scientists in work that led to the Nobel Prize in Medicine, the Lasker Prize, the Charles F. Kettering Prize for Cancer Research, and the National Medal of Science.

Among the key recipients of funds from past Grand Auctions has been the Ben May Department for Cancer Research. Ben May focuses on fundamental science research into the mechanisms of cancer progression.

Funds from the Grand Auction have also benefited the University of Chicago's Specialized Program of Research Excellence (SPORE) in Breast Cancer, and the University of Chicago Cancer Research Center.

Cancer Disparities: A Biological and Psychosocial Perspective

(Continued from p.2)
rounding social structures, as well as economic realities," said Dr. Gehlert.

Building on these community level studies, the researchers in Chicago measured features in a four-block area around women's homes that might impede or enhance social interactions; for example, vacant buildings and lots, fences, and deteriorating infrastructure, or conversely, neighborhood watches or block clubs. "We gathered data on how people respond to these neighborhood contexts" in order to move down a level to the psychosocial, she explained. Interviewing the neighborhood women, the researchers looked for successful coping strategies.

"The connection between psychosocial factors and biological consequences makes enormous intuitive sense, despite the fact that it turns the reigning biology-centric paradigm on its head," said Dr. Gehlert. "But when you get to know the women and the stress-generating neighborhoods they live in, it's hard to maintain the belief that a biomedical approach alone is going to provide a meaningful solution to the problem of understanding health disparities."

"The CPHHD initiative highlights an increasingly sophisticated approach to the study of social context and its influence on cancer and cancer disparities," said Dr. Paige McDonald,

"We're only beginning to understand the causal pathways through which social context contributes to health disparities"
- Sarah Gelhert, PhD

chief of NCI's Basic and Biobehavioral Research Branch. "While preliminary, these studies are promising. However, more research is needed to understand how the macroenvironment may influence tumor biology in biologically relevant ways that contribute to differences in cancer outcomes."

One Step closer to a Personal Cancer Treatment

New Scientist
November 15, 2008

It is usually impossible to tell whether someone's cancer will respond to therapy. That could change with the discovery of a genetic signature that predicts whether a variety of cancers will respond to the most common treatments. This could help identify which patients need drugs and radiotherapy, and which can be treated less aggressively.

Andy Minn, MD, PhD

Andy Minn, MD, PhD, at the University of Chicago and his colleagues discovered that many cancers show abnormalities in 49 genes, collectively known as the IFN-related DNA damage resistance signature (IRDS).

They then analyzed 34 different cancer cell lines and several hundred primary human cancers. The IRDS was associated with resistance to radiotherapy among the cell lines from certain cancers, while in breast cancer patients it correctly predicted which cancers would be resistant to radiotherapy and drugs that work by causing DNA damage in dividing cells - although not other cancer drugs.

"This moves us one step closer to personalizing cancer treatment, and points towards ways to improve the effectiveness of chemotherapy and radiotherapy," says a spokeswoman for Cancer Research UK (CRUK).

In a separate study, Jason Carroll at CRUK's Cambridge Research Institute and his colleagues discovered how breast cancers become resistant to the drug tamoxifen. This could lead to the discovery of new drugs and ways of screening patients who are unlikely to respond to tamoxifen.

"This moves us one step closer to personalizing cancer treatment, and points towards ways to improve the effectiveness of chemotherapy and radiotherapy,"
- Cancer Research UK

Around 75-percent of breast cancers are fuelled by the hormone estrogen. Tamoxifen works by blocking estrogen receptors, but cancers can get around this problem by expressing an alternative receptor called Her2. Carroll discovered that a cancer cell's ability to express Her2 receptors is dependent on the relative amounts of two proteins called Pax-2 and AIB-1. If Pax-2 is missing, or AIB-1 is present in large quantities, the cancer cell will activate Her2 and become resistant to tamoxifen.

Drugs designed to target these proteins could prevent the expression of Her2 and allow further treatment with tamoxifen.

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