

ONE FOR ALL AND ALL FOR ONE IN

## The battle against lung cancer

### The statistics are shattering.

One person dies of lung cancer in the U.S. every three minutes. Lung cancer kills more men and women each year than breast, colon and prostate cancer combined. Yet, lung cancer is still considered an invisible disease—a disease no one likes to discuss.

But researchers at the UW Comprehensive Cancer Center (UWCCC) are talking about lung cancer and doing much more as evidenced by a recent initiative led by Joan Schiller, MD.

At the UW since 1987, Schiller is a medical oncologist who specializes in treating lung cancer patients and conducting clinical research.

She is leading a unique collaborative effort across the University of Wisconsin-Madison campus, uniting the talents of clinical, laboratory and population-based researchers to work together toward more accurate detection, diagnosis and treatment of lung cancer. Efforts are focused on six projects (described here) that will undoubtedly shed more attention on and ultimately find better treatments for lung cancer.

"This lung cancer pilot project is truly remarkable as many of the researchers involved have not collaborated before, and this represents an extraordinary opportunity," Schiller said. "Together these studies will form the basis for future direction in the fight against lung cancer."

### Project 1: Minority Participation in Clinical Trials

Tobacco abuse is higher among Native Americans than any other ethnic group in the U.S., although smoking varies by region and tribe. National data reveals that in the Great Plains region, which includes Wisconsin, 44.1% of Native Americans adults are current smokers. Researchers working on this project will work with the Spirit of EAGLES, an American Indian/Alaska Native Leadership Initiative on Cancer, to identify some of the barriers and solutions to minority patient population participation in lung cancer research.

According to Rick Strickland, program director, North Central Spirit of EAGLES at UWCCC, "We not only hope to learn what personal, cultural or structural barriers may impact American Indian participation in cancer research, but to engage American Indian community members in identifying ways to reduce barriers. We hope what we learn may also benefit work with other minority populations."

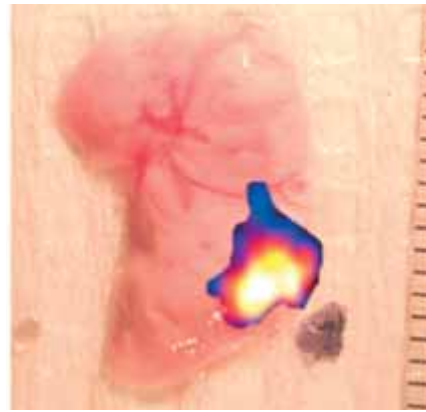
### Project 2: A Study of Wisconsin Smokers

More than 600 Wisconsin smokers will participate in a study measuring factors associated with smoking cessation as well as genetic risks for lung cancer. Participants in this two-year study will be chosen from the 2003 Wisconsin Tobacco Survey—a survey that included more than 8,000 Wisconsin residents. UW's Center for Tobacco Research and Intervention will be a significant collaborator on this project.

### Project 3: Evaluating NM404 as a CT-PET imaging agent

One of the major reasons for the lack of significant progress in non-small cell lung cancer is the absence of highly accurate imaging.

Researcher Jamey Weichert, PhD continues his groundbreaking research to see if his radioactive imaging agent—NM404—can more precisely locate, characterize and treat lung tumors.



Fused digital photograph and Bioscan images of an excised mouse lung showing NM404 uptake into a 2 mm metastatic lung tumor.

To overcome imaging limitations, the researchers in this project are proposing to develop a CT-PET tumor-specific version of NM404. CT-PET is a combination of two body-imaging techniques that can more accurately show how far a patient's cancer has spread. This dual technology has been in use at UW Hospital and Clinics since the summer of 2002—the first anywhere in the United States.

### Project 4: Chemoprevention

Cancer chemoprevention is defined as the use of natural or synthetic agents to prevent, inhibit or reverse the development of cancer. This project will examine the effects of pomegranate fruit extract (PFE), an antioxidant, which the principal investigator of this project, Hasan Mukhtar, MD, has studied in other model systems, such as skin.

### Project 5: Molecular screening

Two molecular markers will be studied as possible indicators for lung cancer risk in the labs of Jeff Ross, MD and Jill Kolesar, PharmD.

"We are looking for markers to identify individuals at an increased risk of lung cancer, before they get the cancer," said Kolesar, Associate Professor at the UW School of Pharmacy. "Finding these markers would allow us to target individuals for increased screening, earlier intervention and lung cancer prevention."

### Project 6: Epidermal Growth Factor receptor inhibitors

Over the last decade, it has been noted that although the lung cancer incidence in men has been slowly leveling off, the incidence in women continues to rise.

This is a translational project designed to dissect the mechanism behind a clinical observation—that female lung cancer patients are more likely to respond to Epidermal Growth Factor receptor (EGFR) inhibitors.

Joan Schiller, MD (right) is collaborating with more than 20 researchers on the UW-Madison campus on several lung cancer projects. One of these researchers is Jamey Weichert, PhD (left). Weichert has developed a radioactive imaging agent—NM404—that he hopes will more accurately locate and define tumors in human patients. High-resolution anatomic correlation provided by the ultra-high resolution micro-CT machine (center) used in conjunction with nuclear scans, has confirmed that NM404 is selectively retained in 14 different animal tumor models.



HEAD AND NECK CANCER PATIENTS MAY BENEFIT FROM

# Promising new treatment



By Paul M. Harari, MD

Photo courtesy of UW School of Pharmacy.

Head and neck cancers, which include tumors of the mouth and throat, are among the most aggressive and debilitating types of cancer. Moreover, patients with head and neck cancer often wear their "battle scars" in full view, since surgery and radiation therapy can leave imprints on the face and neck with significant impact on speech and swallowing function.

Fortunately, a new drug known as Erbitux™ has shown very promising results after several years of intensive testing in head and neck cancer patients. The UWCCC served as a lead investigational center in this international effort, and made a major contribution to the clinical study results presented at the American Society of Clinical Oncology (ASCO) 2004 Annual Meeting in June.

We learned that patients requiring high dose radiation for advanced head and neck cancer survived nearly twice as long when they received radiation therapy combined with the new molecular drug Erbitux, compared with patients treated with radiation therapy alone.

In the study, researchers in the United States, Europe and elsewhere compared survival between two groups of patients:

- 213 locally advanced head and neck cancer patients who received high-dose radiation therapy plus Erbitux.
- 211 matched patients who received high-dose radiation therapy alone.

Median survival was nearly twice as long in the Erbitux group (54 months vs. 28 months). In addition, more of the Erbitux patients were alive at two years (62 percent vs. 55 percent) and three years (57 percent vs. 44 percent). Side effects attributed to the addition of Erbitux were relatively minor compared with conventional chemotherapy, with skin reactions being the most common.

A part-mouse, part-human protein, Erbitux appears to enhance the cancer-killing effect of radiation by binding to the epidermal growth factor receptor (EGFR) found in abnormally high amounts in many cancer cells. Preclinical studies published by our research group between 1999-2004 at the University of Wisconsin predicted strong potential benefit in using the combination of EGFR inhibitors like Erbitux with radiation.

The new Erbitux clinical results show great promise, not only for extending survival, but also for curing more head and neck cancer patients of their disease. In addition to the favorable survival impact, new molecular agents like Erbitux do not commonly induce nausea, vomiting, hair loss, decreased blood counts and other side effects that frequently accompany conventional chemotherapy.

The use of Erbitux in combination with radiation for the treatment of head and neck cancer remains under investigation. The FDA will likely review data from these trials in late 2004. If approved, the earliest it would be expected for Erbitux to be available for patients with head and neck cancer who are receiving radiation therapy would be in the spring or summer of 2005.

Over the coming years, Erbitux and other molecular drugs that work in a similar fashion may provide further treatment advances not only for head and neck cancer patients, but perhaps for other cancer patients whose tumors rely on the EGFR signaling pathway for tumor growth.

For more information about head and neck cancer clinical trials, please call Cancer Connect at (800) 622-8922 or e-mail [uwccc@uwccc.wisc.edu](mailto:uwccc@uwccc.wisc.edu).



Paul M. Harari, MD, of the UW Department of Human Oncology, serves as Chairman of the American Society for Therapeutic Radiology and Oncology Education Committee, Head & Neck Chair for the American Society of Clinical Oncology Education Committee and Director of Residency Training in Radiation Oncology at UW Hospital and Clinics. He was recently selected as the first Jack Fowler Professor of Human Oncology at UW-Madison. This endowed Professorship honors the lifetime achievements and contributions of Fowler to the discipline of Radiation Oncology, Biology and Physics.

## MARK YOUR CALENDARS

**Brian Howell Lung Cancer Research Golf Open**  
Sunday • September 12, 2004  
Benefiting lung cancer treatment and research at the UWCCC. Call (608) 222-3966.

**Into the Twilight** • September 14, 2004  
Candle lighting program in honor of Gynecologic Awareness Month. Monona Terrace, One John Nolen Drive, Madison. Call (608) 263-1677.

**Art for Life** • September 16, 2004  
Art auction to benefit UWCCC. UW-Madison Memorial Union. Tickets are \$25. Call (608) 876-6965.

**End-of-Life Nursing Education Consortium**  
September 23 & 24, 2004  
Two-day workshop. Micah Center, High Point Church, 7702 Old Sauk Road, Madison. Call (608) 265-0910.

**Annual Symposium: Advances in Multi-disciplinary Cancer Care** • October 22, 2004  
Focus on gynecologic cancer. Monona Terrace, One John Nolen Drive, Madison. Call (608) 263-1677.

Please visit [www.cancer.wisc.edu](http://www.cancer.wisc.edu) for more information on Cancer Center events.

## Among the nation's very best...

The UW Comprehensive Cancer Center was recently ranked prominently in two publications:

- The July 2004 issue of *Bottom Line Health* ranked the UWCCC as one of 33 of America's best cancer centers and one of only 10 in the Midwest.
- *U.S. News and World Report's* annual Best Hospitals issue ranked the UWCCC as 22nd out of 50 hospitals in the U.S. providing the best cancer care and research initiatives.



# \$7 Million Grant for Breast Cancer Research



A \$7 million construction grant for new breast cancer research space at the University of Wisconsin Comprehensive Cancer Center (UWCCC) has been approved by the US Department of Health and Human Services (HHS).

The grant is composed of \$4 million from the National Center for Cancer Resources and \$3 million from the National Cancer Institute. It will provide funding to house interdisciplinary breast cancer research on one of four new Cancer Center floors planned for the HealthStar Interdisciplinary Research Complex (IRC), which is scheduled for groundbreaking in 2005.

*"By bringing together a mix of basic scientists and clinical investigators in one setting with state-of-art equipment, we will be even better positioned to address the causes, prevention and treatment of breast cancer patients."*

*George Wilding, MD, Director  
UW Comprehensive Cancer Center*

Located adjacent to the Clinical Sciences Center that houses the University of Wisconsin Hospital and Clinics as well as existing UWCCC research space, the IRC will bring together cancer researchers in the clinical and basic sciences in an

interactive environment with the latest technology.

This grant follows approval of a separate \$7 million construction grant for interdisciplinary prostate cancer research that was announced by HHS Secretary Tommy G. Thompson in September 2003.

"We are very grateful to Secretary Thompson and the Department of Health and Human Services for approving our grant proposal and recognizing the quality of research at the UW Medical School and Comprehensive Cancer Center," said George Wilding, MD, director of the UWCCC. "By bringing together a collaborative mix of basic

scientists and clinical investigators in one setting with state-of-art equipment, we will be even better positioned to address the causes, prevention and treatment of breast cancer patients."

Breast cancer is a major research focus at the UWCCC. It represents the most commonly diagnosed solid tumor in American women. UW Hospital and Clinics registers approximately 450 new cases of breast cancer each year. Among UWCCC membership, there are more than 25 investigators with more than 90 grants and more than \$13 million in funding focusing on breast cancer.

## Construction underway on new

# UW Cancer Center Johnson Creek

Ground was broken in April to launch construction of the new UW Cancer Center Johnson Creek, to be located between Madison and Milwaukee, just south of the junction of Interstate 94 and Highway 26.

A joint project among Fort HealthCare, UW Health and Watertown Memorial Hospital, UW Cancer Center Johnson Creek will provide patients and families with convenient access to cutting edge research and treatment protocols in a nurturing, compassionate and hope-filled environment.

"This location could not be better suited to the needs of cancer patients residing in or near Jefferson and Dodge counties," said Gregory Banaszynski, president and CEO, Fort HealthCare. "Fort HealthCare is pleased to be able to offer this property to our collaborative effort."

John Kosanovich, CEO of Watertown Memorial Hospital, said the UW Cancer Center Johnson Creek brings the best of all worlds to cancer patients and their families.

"By collaborating with Fort HealthCare and UW, we are able to avoid duplication to help hold down costs yet maintain the advantage of the UW expertise in cancer care offered locally," he said.

Affiliated with the University of Wisconsin Comprehensive Cancer Center, UW Cancer Center Johnson Creek will be a 13,500 square-foot facility located adjacent to the Johnson Creek Medical Center at 400 Doctors Court. Doors of the new Cancer Center are expected to open in early 2005.

Donna Sollenberger, president and CEO of UW Hospital and Clinics, noted the very unique collaboration among two



community hospitals and an academic medical center.

"This groundbreaking," she said, "demonstrates that in the face of increasing cost pressures in health care, each of us must think in new ways to better meet the needs of our customers. This cancer center will provide state-of-the-art cancer care with all the convenience and comfort of being close to home."

The new UW Cancer Center will assist patients and their families in coping

with a diagnosis of cancer, offer cutting-edge treatment and help them navigate the complicated process of receiving quality cancer care. Core services will include: cancer treatment, prevention and education. Specific services will feature: medical oncology, radiation oncology, chemotherapy treatment and access to clinical trials.

For more information, contact Lynda Persico, the UW Cancer Center Johnson Creek Director, at (608) 219-1709.

# Advances



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- To learn more about the UWCCC, please visit our website: [www.cancer.wisc.edu](http://www.cancer.wisc.edu)

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You may also contact Craig with a request by telephone at (608) 263-4982 or by e-mail at [robida@uwccc.wisc.edu](mailto:robida@uwccc.wisc.edu)

## UW Health CareWear: A perfect fit

A breast cancer diagnosis can be a devastating experience. In addition to considering options for treatment, women may also be confronted with significant changes in their appearance.

UW Health CareWear stores offer products for women who have had a mastectomy, lumpectomy, breast reconstructive surgery, or who have breast asymmetry. Breast prostheses, bras, partial breast forms, headscarves, hats, natural hair eyebrows, lymphedema sleeves and compression stockings are among the products offered.

CareWear stores are staffed by certified fitters who specialize in caring for women with breast cancer. They support each client's physical and

psychosocial well being by recommending products and offering resources for support and follow-up care. CareWear staff spend individual time with each woman to discuss her needs and ensure that products fit properly.

"At CareWear, we know that each person has different needs," says Kathy Nelson, CareWear Manager. "That's why we dedicate individual time to each customer—to discuss your situation, find the right products and ensure that you feel comfortable."

Most insurance plans cover partial or full costs of breast forms, prostheses and bras. CareWear submits insurance and Medicare claims for clients.

*How to make an appointment*  
UW Health CareWear services are conveniently located at the following locations:

**UW HOSPITAL AND CLINICS**  
600 Highland Avenue  
Madison, WI 53792

**UW HEALTH WEST CLINIC**  
451 Junction Road  
Madison, WI 53717

**UW HEALTH EAST CLINIC**  
5249 East Terrace Drive  
Madison, WI 53718

Products vary at each location. To schedule an individual appointment, call (608) 262-2609.



## Support for breast cancer research in Wisconsin made easy



Wisconsin taxpayers now have an easy way to support breast cancer research, thanks to a new law that took effect this year.

Starting with the next income tax season, Wisconsin income tax filers will have the opportunity to designate a contribution of any amount to a new Breast Cancer Research Program simply by checking off a box on their state income tax return. The amount of the donation will either reduce your refund or increase the amount of tax owed.

All proceeds received from this income tax "check-off" will be equally divided between the UW Comprehensive Cancer Center in Madison and the Medical College of Wisconsin in Milwaukee.

Many Wisconsinites may already be familiar with a similar income tax "check-off" mechanism that allows taxpayers to contribute to the state Endangered Resources Fund that helps protect plants, animals and places that could be in jeopardy. Based on past taxpayer donations to the Endangered Resources Fund, up to \$600,000 could be raised annually for breast cancer research under the new program.

Modeled after similar programs in several other states, 2003 Assembly Bill 351 to create the Wisconsin Breast Cancer Research Program was authored by State Representative David Cullen (D-Milwaukee) and State Senator

Dale Schultz (R-Richland Center). The bill passed both houses of the Wisconsin Legislature unanimously earlier this year and was signed into law by Governor James Doyle in April.

"This is a great step forward for breast cancer research in our state," Cullen said. "This is a proposal that can make a significant impact on our fight against this disease. I am extremely proud of my colleagues for recognizing that with their overwhelming support."

# Making a Difference



Recently Bill Steinberg, Vice President of the Midwest Athletes Against Childhood Cancer (MAACC) Fund's Board of Directors, presented a \$200,000 check to support research conducted in the laboratory of Paul Sondel, MD, PhD, Division of Pediatric Hematology and Oncology. The MAACC Fund has contributed over \$1.5 million to the UW's Pediatric Oncology research efforts in the past 20 years.



Madison's St. Patrick's Day Parade Committee recently presented a \$2,600 check in memory of Colleen O'Meara Schams, a long standing volunteer of the Committee and a former Co-President of the Dane County Shamrock Club to Alice Gary McCoy, MD for multiple myeloma research. The 2004 Parade, which was the seventh annual event, was very successful in spite of cold temperatures.

## *YES! I want to make a difference by giving to the UW Comprehensive Cancer Center*



Donor's name (s) \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

I/we wish to make a donation of \$ \_\_\_\_\_

In memory of (optional) \_\_\_\_\_

In honor of (optional) \_\_\_\_\_

Please send acknowledgment card to: (optional)

Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Check enclosed. Please make checks payable to **UW Comprehensive Cancer Center**.

Please charge my gift to my:  Visa  Mastercard

Cardholder's name (please print) \_\_\_\_\_

Credit card number \_\_\_\_\_ Exp. date \_\_\_\_\_

Cardholder's signature \_\_\_\_\_ Date \_\_\_\_\_

**Mail this form to:**

**Ann Johnson**

**UW Comprehensive Cancer Center**

**600 Highland Avenue, K4/658**

**Madison, WI 53792-6164**

Please call **(608) 263-1677** with questions.

# Updates in *Clinical Trials*

*Clinical trials are UWCCC's key to progress in the battle against cancer*



Every 25 seconds a man, woman, or child in the United States is diagnosed with cancer. For those who are eligible, a cancer clinical trial offers either the best available treatment or the opportunity to receive a new, potentially more effective therapy.

The UW Comprehensive Cancer Center (UWCCC) typically has 200 to 250 clinical trials available for participation. Some current clinical trials include:

## ***DFMO Chemoprevention of Skin Cancers in Organ Transplant Recipients***

This study will enroll patients who have had a solid organ transplant (kidney, liver and pancreas, or combination kidney/pancreas), and who are at risk of developing skin cancer. Participants will receive a medication called DFMO or a placebo. DFMO is an experimental agent that shows promise as a cancer-preventing agent because it slows an enzyme involved in tumor growth. Participants will be in the study for two years, one year of treatment and one year of follow-up.

In 1986, the late Paul Carbone, MD, director of the UWCCC from 1978-97, led the first clinical trials of DFMO. Researchers at the UWCCC have spent considerable years measuring this agent's effectiveness against bladder, prostate, colon and skin cancers.

## ***Colorectal Cancer***

Colorectal cancer is the second leading cancer killer trailing only lung cancer in annual U.S. cancer deaths. Approximately 30 individuals will participate in a new colon cancer study at the UWCCC. This study involves the use of Oxaliplatin, 5-Fluorouracil, Leucovorin and Capecitabine, which are all medicines approved by the Food and Drug Administration and commercially available, but have not previously been used in combination with one another. This phase II research study will measure how effective this combination is as a first-line treatment for metastatic colorectal cancer.

## ***Renal Cell Carcinoma***

Specialists at UWCCC are currently investigating the use of a new medication for the treatment of renal cell carcinoma (RCC). This new agent, called SU011248, which is not yet approved by the FDA is for patients with metastatic or advanced RCC who have already received one prior treatment for their advanced RCC.

SU011248 is a new agent that targets a specific pathway in cancer cell development. It is anticipated that UWCCC will enroll approximately 10-20 patients in this clinical trial, with about 100 participating nationally.

For more information about clinical trials at the UW Comprehensive Cancer Center, contact Cancer Connect, (800) 622-8922 or (608) 262-5223 in the Madison area.

A complete listing of clinical trials at the UWCCC is also available on our website, [www.cancer.wisc.edu](http://www.cancer.wisc.edu)