

All sides now

Multidisciplinary treatment can make the difference when breast cancer strikes

One in eight. This is the oft-repeated figure for the odds that a woman will be diagnosed with breast cancer at some point in her life.

While a woman is far more likely to survive breast cancer today than she was a generation ago, her likelihood of cure is in many ways a consequence of the treatment path she and her doctors choose once the diagnosis is made.

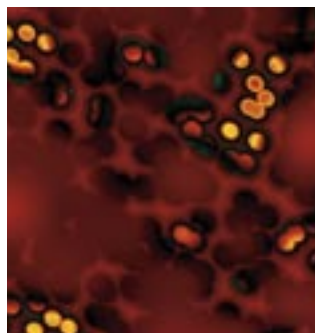
Cancer patients seen at UW Hospital and Clinics have the advantage of access to

continued on page 2



P2

Preserving fertility through trachelectomy



P4

Plasmapheresis



P5

Building bones



P7

DeBakey pump option



P8

Record year for transplant

Multidisciplinary Treatment *from page 1*

multidisciplinary teams unique to each disease site—an approach that ensures that experts in all disciplines of cancer care are involved in customizing an optimal treatment plan.

“A woman diagnosed with breast cancer naturally wants to maximize her chance of survival,” says Tara Breslin, MD, a UW oncology surgeon who specializes in breast cancer surgery. “At UW Hospital and Clinics, we have both the breast health specialists and state-of-the-art clinical facilities to support this objective.”

The multidisciplinary team at UW Hospital and Clinics includes

treatment emanates from an exchange of knowledge and opinions among experts in various aspects of breast health.

“The traditional approach was for the surgeon, medical oncologist and radiation oncologist to treat the patient essentially independent of one another,” Breslin says. “Our approach fosters treatment recommendations with the other therapeutic modalities in mind. For our patients, this means that all treatment options are considered, culminating in the best possible plan for each woman.

The options also include breast reconstruction, typically done

Cancer Center in Houston and has been at UW Hospital for five years, cited a recent Medical College of Wisconsin study concluding that surgeons who do large volumes of breast cancer surgery had the best patient outcomes.

The study, published this past August in *Cancer*, a peer-reviewed journal of the American Cancer Society, found that surgeons who performed 15 or more breast cancer surgeries per year had a significant reduction in five-year mortality rates.

“Virtually every woman diagnosed with breast cancer will require surgery,” Breslin says. “Whether



Tara Breslin, MD

Breslin also points out that the new UW Hospital and Clinics Breast Center, which opened two years ago, has substantially enhanced the speed with which women can get answers—especially when a breast problem is identified.

“We’re cognizant of the need to minimize stress for our patients by not allowing days and days to go by without answers,” Breslin says, noting that diagnostic mammograms are read the same day and screening mammograms are read within 24 hours. “Among the breast surgeons, our policy is to see women who are newly diagnosed with breast cancer on the next clinic day.”

A study found that surgeons who performed 15 or more breast cancer surgeries per year had a significant reduction in five-year mortality rates.

breast radiologists, surgeons, medical and radiation oncologists, pathologists, nurses, mammography technologists, medical and clinical assistants. This “everything under one roof” approach ensures that a woman’s

immediately following a mastectomy. Karol Gutowski, MD, and Venkat Rao, MD, both board-certified UW Health plastic surgeons, perform this operation.

Breslin, who completed a surgery fellowship at the M.D. Anderson

the choice is a lumpectomy or mastectomy, I think this study helps confirm the value of choosing a surgeon whose training, clinical practice and research efforts are focused primarily on breast cancer.



Treating cancer, preserving fertility

Thanks to trachelectomy, Gina Janovsky of Rockford, IL, gave birth to her son, Zachary, despite being diagnosed with cervical cancer.

As recently as five years ago, a diagnosis of early-stage cervical cancer equaled the end of childbearing for female patients. After all, the standard treatment for early-stage cervical cancer is a radical hysterectomy, the surgical removal of a woman’s cervix and uterus.

Today, certain types of cervical cancer patients have another option. Earlier this year, David Kushner, MD, an ob/gyn cancer specialist with the UW Comprehensive Cancer Center (UWCCC) began offering trachelectomy, a new surgical procedure that removes cancer while preserving a woman’s fertility

Women whose mammogram shows an abnormality are kept under the close eye of Terri White, RN, the breast care coordinator in the UW Breast Center.

“Terri helps women through the work-up whenever there is a breast problem,” Breslin says. “She also provides education, support and coordination of a woman’s care while staying in close touch with the woman’s primary care physician.”

Questions can be directed to Stephanie Orzechowski, manager of the UW Breast Center, at **(608) 261-0965** or sl.orzechowski@hosp.wisc.edu. Appointments can be made directly by calling **(608) 266-6400**. For more information, visit uwhealth.org/cancer.



Elizabeth Burnside, MD

New face, revitalized program

Dr. Rakesh Patel, MD, is bringing a fresh look—and a research-based approach—to a successful cancer-treatment program at UW Health.

Patel has been involved with UW Health’s breast brachytherapy program since its inception in 2000, but only became the director last year. In the nearly five years that the brachytherapy program has been in operation, more than 250 patients have received treatment, making UW the largest provider of the therapy in the United States.

“Because we’re a large academic center, I wanted to integrate radiation oncology into the Breast Center,” says Patel. “Which makes a lot of sense, since radiation plays an integral role in breast cancer management—not just brachytherapy.”

In 2005, brachytherapy is neither experimental nor investigational, but it’s also not yet the standard of care. Patel is working to change that, and he has the numbers firmly on his side. Of the 276 breast cancer patients who have received brachytherapy at UW Health in the last five years, only three have experienced cancer recurrence—a rate of less than one percent.

Patel is currently recruiting 300 patients for a large, phase-2 clinical

trial designed to track patients’ progress and examine other factors that may affect how a woman fares with brachytherapy: As an invasive therapy, is it improving a woman’s quality of life? Does brachytherapy affect subsequent screening with mammography? Is brachytherapy cost-effective?

Not every woman is a candidate for brachytherapy; the therapy is best suited for early-stage breast cancer patients with relatively small tumors. “It’s a convenient option for the right patient,” says Patel.

For more information about brachytherapy or to sign up for the clinical trial, contact **(608) 262-5223** or visit uwhealth.org/cancer.



Rakesh Patel, MD

In a trachelectomy, surgeons use laparoscopic techniques to remove only the lymph nodes and the cancerous part of the woman’s cervix, maintaining her ability to carry a child. A permanent cerclage is used to hold the remaining part of the cervix in place. Women who undergo the procedure must deliver their babies by Caesarean section.

The modern trachelectomy procedure was pioneered in the mid-1990s by French surgeon Dr. Daniel D’Argent. According to Kushner, U.S. surgeons were initially skeptical of D’Argent’s work.

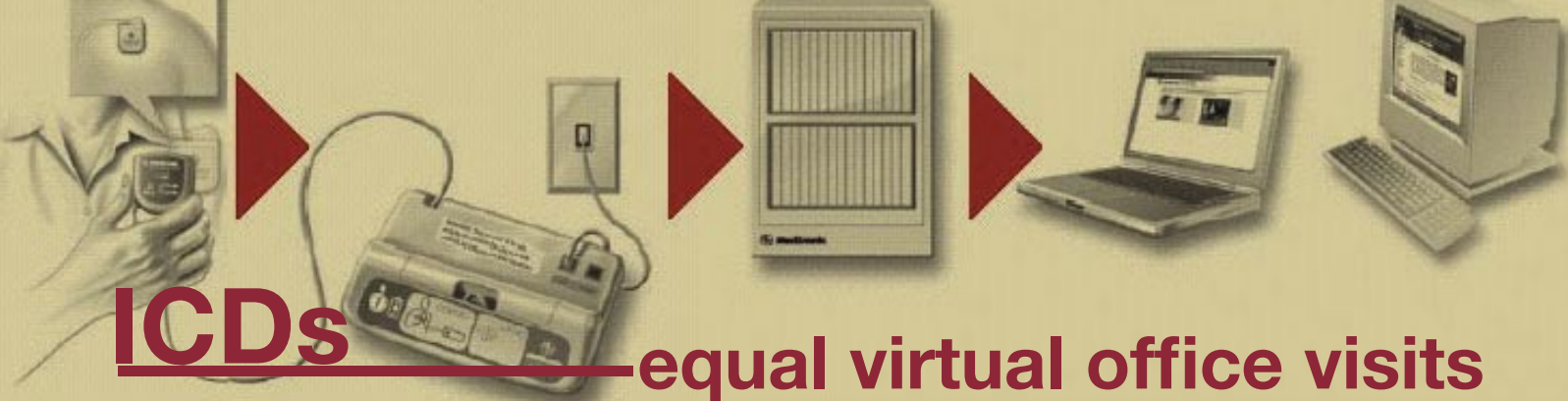
“Ultimately, D’Argent has shown that pregnancy and cancer outcomes are excellent in well-chosen patients,” Kushner says.

Canada and France are the main countries in which trachelectomies are routinely performed, although the procedure is quickly gaining acceptance stateside. Only a handful of other U.S. hospitals currently perform it, and Kushner is the only doctor in this region who’s currently doing so.

The best patients for trachelectomy are women under 40 with tumors smaller than 2 centimeters) who want to maintain fertility.

“To be able to get to the next level, to be able to say that we can not only cure people, but also improve their quality of life and give them something they wouldn’t have been able to have a few years ago—that’s exciting,” says Kushner.

For more information, call **(608) 265-1700** or visit uwhealth.org/cancer.



ICDs equal virtual office visits

In a move that promises greater freedom and flexibility for many of its heart patients with Implantable Cardioverter Defibrillators (ICD), UW Hospital and Clinics has entered into an agreement with Medtronic CareLink™ Network, the first Internet-based service that connects cardiac device patients and physicians for “virtual office visits.”

The monitor is a compact, tabletop device that weighs only a few pounds. It provides immediate access to care from home or while traveling, because it enables patients to collect and transmit data about their heart and ICD anywhere in the continental U.S., Alaska and Hawaii through a

standard phone line. Relatively quickly, the patient’s physician and nurses can view the data on a secure Internet site. The information, which is comparable to that provided by an in-clinic device follow-up visit, provides the UW Health physician with a comprehensive view of how the patients’ hearts and devices are operating. Another feature allows patients to view information about their device and condition on their own password-protected, personalized Web site. Family members or other caregivers can view this information if granted access by the patient.

If a patient perceives they’ve received a shock from their ICD,

they can call the UW Health Heart and Vascular Care Device Clinic and they may be asked to send data from their ICD via the phone line. Clinic staff will review the data and determine whether patients need to be seen in the clinic.

“This device offers our patients another option for management of heart rhythm issues,” says Douglas Kopp, MD, director of electrophysiology at UW Hospital and Clinics. “Patients are often anxious about the monitoring of their heart condition once they are offsite. With this device, the peace of mind and convenience for the patient can improve overall quality of life,” Kopp added.

Other benefits include reducing the number of office visits a patient makes to the hospital each year and the convenience of choosing the time of day that works best for them to send their ICD data.

Currently, patients are scheduled to have four in-person clinic visits per year. The use of the monitor will reduce in-person visits to two annually; the other two can be done from home within a 72-hour window provided by the clinic.

For more information, contact **(608) 263-1530** or visit **uwhealth.org/heartandvascular**.

Battling organ rejection through plasmapheresis

The United Network for Organ Sharing (UNOS) estimates that more than 87,000 people are currently on transplant waiting lists in the United States. Because the number of available donor organs is dramatically fewer than the number of people who need them, many of those would-be patients will die before they have the opportunity to undergo surgery,

Transplant surgeons at UW Health believe they’ve found a way to reduce that number, through a new procedure called

plasmapheresis. Pheresis removes antibodies that might cause organ rejection from the bloodstreams of potential transplant patients. L. Thomas Chin, MD, a UW Health transplant surgeon, is spearheading the program.

In cases where a pre-transplant test reveals that circulating antibodies produced by the patient’s body make organ rejection likely, patients can undergo the procedure in a series of outpatient visits. In September, 2004 UW Health surgeons successfully transplanted an



A simple procedure may mean new hope for transplant patients

continued on page 7

2MD = Bone-builder?

UW Osteoporosis Clinical Research Center to test compound

The UW Osteoporosis Clinical Research Center has been chosen as one of only a dozen sites worldwide to conduct a clinical trial involving 2MD, a vitamin D-based drug compound that builds bone mass. In May 2004, when 2MD was proven safe for use in humans, pharmaceutical giant Pfizer purchased the right to develop the drug and begin conducting further trials.

Trial coordinators at the UW Osteoporosis Clinical Research Center will track 30-40 postmenopausal women who aren't currently taking calcium

supplements. About half the study participants will receive doses of 2MD, while the other half will receive a placebo.

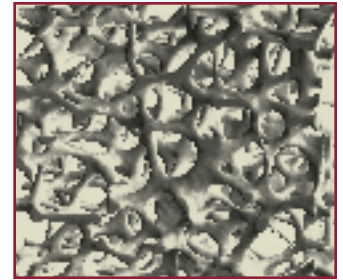
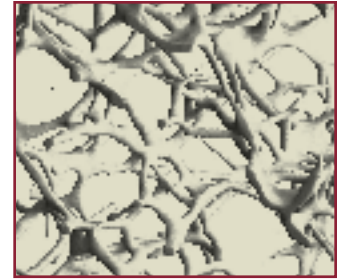
"If 2MD works in humans like it does in rats, it's going to be a major advance in osteoporosis treatment," says Dr. Neil Binkley, a UW Health osteoporosis specialist and the lead researcher for the clinical trial. "This could be really significant."

Most current osteoporosis therapies are anti-resorptive—they don't stimulate bone formation, but rather curtail bone loss. Newer drugs can build bone, but they're

expensive and difficult to administer. 2MD stimulates osteoblasts and can be administered in a less expensive, easy-to-digest pill form.

In addition to 2MD's bone-building capabilities, researchers hope that the compound may help to correct the muscle weakness—and resulting falls and fractures—that Vitamin D-deficient patients often suffer.

For more information, contact the Osteoporosis Clinical Research Center at **(608) 263-BONE (263-2663)**.



Researchers hope 2MD turns osteoporotic bone (above) into dense bone.

The search for a better hepatitis B treatment

UW Health researchers are hoping a new clinical trial will yield continued therapeutic improvements for chronic hepatitis B patients with severe decompensated liver disease and cirrhosis. The study will attempt to determine whether LdT (Telbivudine), an experimental medication, is safer and more effective than lamivudine, the current FDA-approved treatment standard. Though lamivudine can help stabilize liver disease in some patients, the long-term result for others is disease progression and death.

Current data indicate that telbivudine, an HBV-specific nucleoside that works by inhibiting replication of the hepatitis B virus in the body, has a greater antiviral effect than lamivudine. The drug exhibits no

activity against other viruses that cause human disease, such as HIV, avoiding the risk of contributing to development resistance for HIV or other viruses in co-infected patients. However, it remains unknown whether telbivudine is more or less effective than lamivudine when administered to cirrhotic patients infected by HBV.

"This is an important study because we need better treatment options for patients with serious consequences of hepatitis B infection," says Dr. Michael R. Lucey, MD, principal investigator for UW's portion of the study.

The study is sponsored by Idenix Pharmaceuticals, Inc., and is taking place in approximately 14 countries in North America, Europe and Asia. About 240 subjects with chronic hepatitis B

will participate, including about six subjects at UW.

The results for subjects taking LdT will be compared to results from subjects taking lamivudine, the standard treatment for chronic hepatitis B at UW Health.

Major eligibility criteria include:

- A clinical history compatible with decompensated chronic hepatitis B-related cirrhosis
- Elevated serum ALT level
- No more than eight weeks of continuous treatment with a nucleoside analogue or 12 total weeks of treatment with a nucleoside analogue
- No exposure to adefovir within the previous six months
- No renal insufficiency or cancer

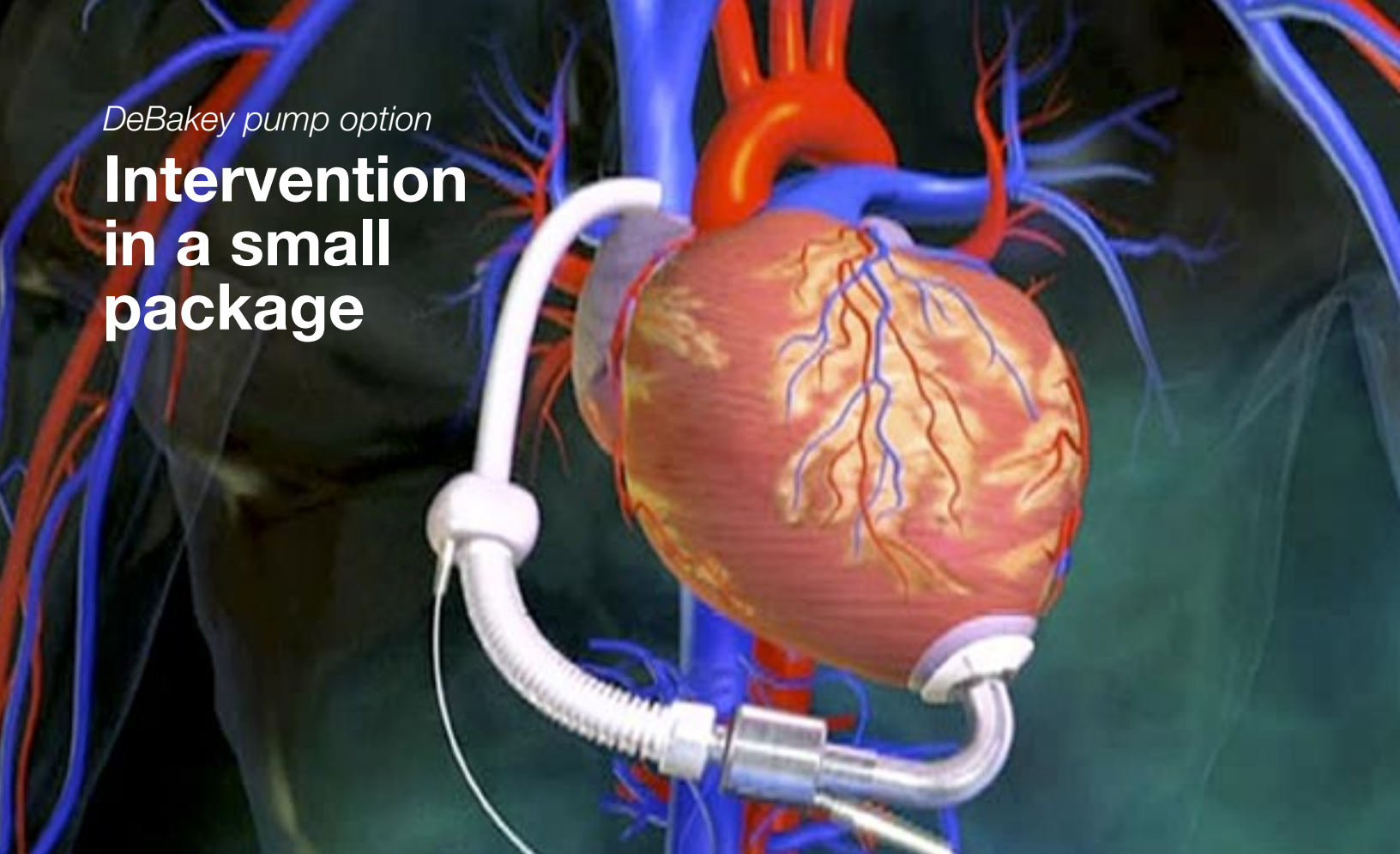


Michael R. Lucey, MD

Patients who are coinfecting with hepatitis C virus, hepatitis D virus, or HIV, or who have received interferon or other immunomodulatory treatment for HBV infection in the 12 months before screening will be excluded. Several other factors may result in exclusion, so for more information or to refer a patient to the study, contact the study coordinators at **(608)263-4185**.

DeBakey pump option

Intervention in a small package



The latest left ventricular assist device offered by UW Hospital and Clinics weighs less than four ounces, and is about the size of a pen.

Created by a company collaborating with NASA, the DeBakey Ventricular Assist Device (VAD) made its debut at UW Hospital this past year when UW Health surgeons successfully implanted a DeBakey VAD in a 48-year-old Madison man. “This device offers our patients another option for management of or recovery from heart failure,” says Niloo Edwards, MD, chair of cardiothoracic surgery at UW Hospital and Clinics. “Patients often think that transplant is the only option, when in fact there are many different methods of treatment, especially in a large heart failure program like ours,” Edwards adds.

The DeBakey pump, currently in clinical trials, offers several

advantages over other larger pumping devices currently in use—most significantly, the fact that it’s a wearable device. By turning down the flow, surgeons can determine if the patient has recovered enough to be taken off the device. Edwards notes that other devices don’t offer the range of pumping function that enables physicians to assess recovery of the heart’s function. The DeBakey VAD also offers additional benefits over other devices:

- The device works well in people with smaller body types, such as petite women and children, where larger devices cannot be implanted. Paradoxically, it also works better in larger bodies because of its pumping abilities.
- Both the surgical time to implant the device and the surgical incision are minimized by the smaller DeBakey pump.

- The small battery pack and pump controller allow the patient more mobility, offering better quality of life.
- The device is intended for long-term use, with the manufacturer expressing hope that it provides a permanent alternative to transplantation.

UW Hospital is approved to use the DeBakey pump for both bridge-to-transplant and destination therapy (an alternative to transplant) as part of the clinical trials. In addition, the availability of VAD therapy allows surgeries considered high risk to be performed, as a VAD can be used to support patients in the perioperative period, should that become necessary. At UW, each patient with advanced heart disease is evaluated by an expert team of heart failure cardiologists and cardiothoracic surgeons who design a treatment plan tailored

to the specific needs of the patient. The options considered in addition to heart transplantation and VAD placement include, but are not limited to, percutaneous or surgical revascularization, surgical valve repair or replacement, cardiac resynchronization therapy, and cardiac remodeling surgery. The UW team is also involved in clinical trials of many developing medical and surgical options for patients with heart failure.

For more information on the DeBakey VAD, call UW Health’s Heart Failure Program at **(608) 263-1690** or visit **uwhealth.org/heartandvascular** or **www.micromedtech.com**.

More Dollars for Alzheimer's

With the goal of bringing Alzheimer's drugs to the public more quickly, UW Hospital and Clinics is participating in a five-year, \$60 million data collection effort to find better ways of tracking disease progression.

Funded in part by the National Institutes of Health and the Food and Drug Administration, the Alzheimer's Disease Neuroimaging Initiative (ADNI) is a multi-site, public-private collaboration to investigate normal aging and Alzheimer's disease. Data collection will involve brain imaging combined with cognitive testing and biological samples that include blood, urine and, in some cases, cerebrospinal fluid.

"The hope is that this project will provide a better characterization of the early phases of the disease and also provide indicators of disease progression," said Sterling Johnson, MD, PhD, an assistant professor with UW Medical School and the principal investigator for UW's portion of the study. The

UW team also includes Sanjay Asthana, MD, Cynthia Carlsson, MD, and Howard Rowley, MD.

UW will receive approximately \$600,000 in funding over five years for the study, which also involves approximately 50 sites across the U.S. and Canada. An essential feature of the initiative is that the clinical, neuro-psychological, imaging and biological data and samples will be made available to all qualified scientists at any institution in the United States.

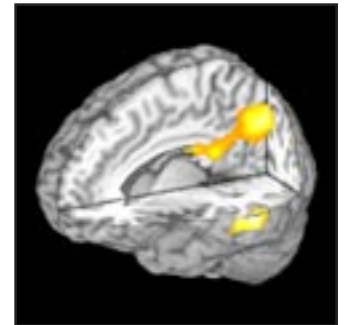
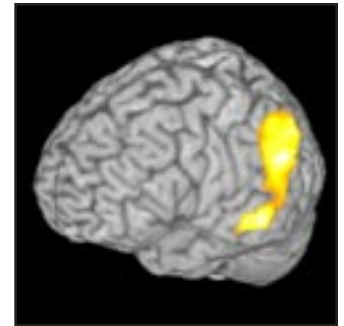
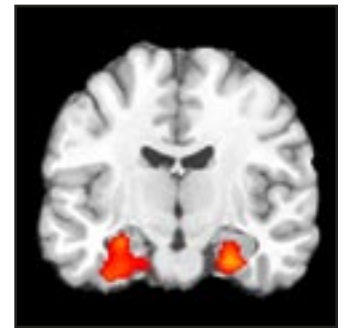
By establishing more definitive rates of change in the brain associated with aging and Alzheimer's, the project should make drug trials quicker and more efficient—thus bringing effective drugs to the public sooner. Currently, the development of drugs for patients with Alzheimer's disease is costly and requires a considerable length of time.

Researchers typically rely on cognitive data to monitor disease

progression, but the ADNI study will establish structural brain data that's expected to be more efficient and reliable.

"It will reduce the number of subjects needed in treatment trials by 70 percent because imaging data is much less 'noisy' than cognitive data," says Dr. Johnson.

In April, investigators throughout the U.S. and Canada will begin recruiting about 800 adults, ages 55 to 90, to participate in the research—approximately 200 cognitively normal older individuals to be followed for 3 years, 400 people with mild cognitive impairment to be followed for 3 years, and 200 people with early Alzheimer's disease to be followed for 2 years. For more information or to apply for the trial, contact the National Institute on Aging's Alzheimer's Disease Education and Referral (ADEAR) Center at **1-800-438-4380** for additional information.



Plasmapheresis *from page 4*

otherwise incompatible kidney into a Wisconsin Rapids patient who had undergone pheresis.

"These patients have circulating antibodies that will recognize and attack the antigens expressed in tissue by the majority of donors," says Milagros Samaniego, MD, a kidney specialist at UW Hospital and Clinics. "When the patient receives a transplant, these antibodies bind to the transplant tissue and an immune response destroys the transplant."

Samaniego is especially excited about the prospects pheresis may offer to kidney patients, most of whom are facing years of grueling dialysis as they await an organ match. The average dialysis patient survives for only five years.

UW Hospital and Clinics is one of three transplant centers nationwide currently using plasmapheresis as a way to prepare patients for transplant. (Mayo Clinic and Johns Hopkins are the other two.) Samaniego foresees a busy future for the program, which she estimates could soon benefit up to 30 percent of patients who need kidney transplants.

"We are very happy with the success we've had and are studying several other patients who qualify for this protocol," Dr. Samaniego said. "UW has the potential to become one of the largest centers in the country. This is an exciting new alternative for kidney patients."

For more information about the UW Health transplant program, visit uwhealth.org/transplant.

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Last year, UW Hospital and Clinics became one of the first hospitals in the nation to install **Alaris “Smart” IV pumps** in all inpatient units. Designed to prevent patient-dosing errors, the pumps provide computerized bedside decision support to nursing and technical staff through a series of drug libraries accessed through a touch-screen.



UW Medical School recently appointed three veteran physicians to three key department chairs. **William Busse, MD**, is now chairman of the department of medicine; **Thomas Grist, MD**, is chairman of the department of radiology and **Paul Kaufman, MD**, is chairman of the department of ophthalmology and Visual Sciences.

Kaufman, who became chair last October, has developed one of the country’s top glaucoma and presbyopia research laboratories in his 30-year career at UW.

Busse has built an expansive research program that concentrates on the cellular and molecular mechanisms of asthma, virus-induced asthma and severe asthma. He has headed the asthma and clinical immunology section in the UW Department of Medicine since 1978. He also is director of the UW General Clinical Research Center, the NIH-funded specialized clinical research unit within UW Hospital and Clinics.

Grist has been involved in the development of magnetic resonance imaging (MRI) technology for 20 years as a biomedical engineer and physician. The holder of 12 patents for MRI inventions, he is internationally recognized for the development and clinical application of MRI techniques used to evaluate cardiac and vascular disorders; specifically, non-invasive MR angiography.

Organizational changes enacted by new nursing leadership have significantly impacted **nursing at UW Hospital and Clinics.**

With national nursing vacancy rates averaging 13 percent, UW Hospital and Clinics ended its fiscal year at less than 5 percent. “Improved retention means all our beds are open and staffed, and this has enabled us to accept more patients from our regional partners,” says **Dr. Maureen McCausland**, Senior Vice President, Patient Care Services and Chief Nursing Officer. “We’re very pleased with our progress so far.”

In addition to surpassing a number of other benchmarks, the **UW Health transplant program** established program records in 2004 for the number of organs transplanted (617) and the number of patients who underwent transplantation at UW Hospital (512).

Dr. Hans Sollinger, MD, head of the transplant program, attributes the group’s success in part to the permanence of its surgical



Dr. Hans Sollinger, MD

roster. In more than 20 years at the helm of the program, Sollinger has never had to accept the resignation of a faculty colleague. “We have a team which has been unusually

turnover-free for almost 25 years,” Sollinger says. “First-rate faculty came in and stayed, so we have very stable faculty leadership.” For more information about UW Health’s transplant program, please go to uwhealth.org/transplant.

UW Health officials broke ground in mid-October for the new **American Family Children’s Hospital**, set to open in 2007.



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