Simple blood test can detect breast cancer recurrence

By GWIN ERIKSON

Physicians treating women with breast cancer recognize the need for a specific and sensitive method to monitor disease recurrence, so they should be encouraged by a new study that describes a biomarker that seems to fill those criteria.

School of Medicine researchers have shown that mammaglobin, a protein secreted by breast tumor cells, can readily be detected in the blood serum of patients with metastatic breast cancer using an inexpensive, reliable clinical test.

"A test for mammaglobin holds significant promise for catching metastatic tumors early," said study co-author Timothy P. Fleming, Ph.D., research associate professor of surgery at the School of Medicine and a researcher with the Siteman Cancer Center. "Compared to the few other known biomarkers linked to breast cancer, mammaglobin is the best. The protein is found in breast tissue and is secreted by most breast tumors."

The study, published in Clinical Cancer Research, tested 50 women without breast cancer and 26 women with metastatic breast cancer.

The women without breast cancer tended to have a lower, low level of mammaglobin in their blood. This baseline level was not affected by age, body mass index, menopausal status, race, smoking history or a family history of breast cancer.

In contrast, the women with metastatic breast cancer had on average much higher readings of mammaglobin than the baseline level, providing the potential to distinguish cancer-free patients from those with recurrent breast tumors.

In addition, about 80 percent of all breast cancers examined, regardless of the type of tumor or stage of development, tested strongly for mammaglobin, while normal breast tissue had significantly less mammaglobin.

Physicians believe an ideal disease screening method should be simple, noninvasive and use common equipment available in a variety of conditions. This study shows that mammaglobin levels in blood serum can be readily obtained with a test called ELISA, an inexpensive clinical test often used to measure protein levels in serum.

The test detected even very low levels of mammaglobin in blood serum and maintained accuracy over a 1,000-fold increase of mammaglobin concentration. Serum samples subjected to repeated freezing and thawing or stored frozen for a year remained just as effectively as fresh samples, indicating no potential problems with sample storage.

Mammaglobin was discovered by Fleming's laboratory in the late 1990s through the efforts of Fleming and pathology professor Mark A. Watson, M.D., Ph.D. Originally, we identified the gene that produces mammaglobin because it is activated in breast cancer cell lines and in about 10 percent of breast cancer cells, said Watson, a co-author and professor of pathology and immunology and director of the Mammaglobin Research Laboratory.

Study: Resellers benefit as NFL teams under-price their tickets

By SHELIA NEUMAN

The National Football League season is in full swing, and again, ticket prices are higher than ever.

Fans who pay anywhere from $50-250 for a single ticket may grouse about the price, but Daniel Ellenbogen, Ph.D., assistant professor of organization and strategy in the Olin School of Business, said football teams routinely under-price their tickets — and online ticket scalpers are reaping the benefits.

That teams sell tickets at prices far lower than their market value may seem to contradict economic logic.

"On average, people who buy NFL tickets on eBay pay more than 50 percent above a ticket's face value. Markups are even higher in football-loving locales such as Green Bay and New England," Ellenbogen said. "Despite the disparity between face value and street value, Ellenbogen said it actually makes sense that owners don't jack up ticket prices even more."
Graduate students tabbed again to host leadership conference

By NEIL SCHONHERR

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When the University hosted a national conference on graduation student representation in Octo-
ber 2003, it was a first-of-its-kind event in the country. The graduate student voice in improve-
doc.tal educational opportunities, graduate student leadership was—will be dis-
cussed during panel discussions at 8:30 a.m., 5 p.m. Nov. 19 in the Bryan Cave Moot Courtroom of Anheuser-Busch Hall for Biomedical Engineering.

It was also a resounding suc-
pcess, and the University has been asked to host the Conference again in 2009.

For more information, call 935-3550.

Boies to deliver Tyrrell Williams Lecture Nov. 15

By JESSICA MARTIN

Boies, chairman of the law firm Boies, Schiller, and Flexner LLP, is the first chief opened and staff director for the Senate Anti-

Corruption and Policy" in the School of Law’s Series on “Access to Justice: The Social Responsibility of Lawyers,” will be delivered to the 2000 election litigation.

During the lecture, he will discuss the First Amendment jurisprudence more broadly.
A new study shows it is best to take out the thyroid before the cancer spreads is the only treatment that can prevent thyroid cancer years after treatment. This study was published in the journal Cancer in Practice. In the case of multiple endocrine neoplasia type 2A (MEN 2A), the gene that causes neurofibromatosis, the oxygen-carrying component of red blood cells. At low oxygen levels, variant hemoglobin clump together and warps red blood cells into hard sickle shapes so that they tend to clog small blood vessels. This study followed at least 400 children with sickle cell disease and specifically address the relation of lung problems to the severity of sickle cell symptoms and the effects of sickle cell disease on the lungs. Physicians will look at the children’s genetic makeup to evaluate the role of specific genes in sickle cell disease symptoms. “Ultimately we have three objectives,” DeBaun said. “We want to treat patients with the best available therapy and we want to characterize lung disease and develop predictors and understand the cellular and molecular level in this vulnerable patient population.” In addition to DeBaun and Strunk, the research team also included the University’s Jessica Bred, M.D., Marta Gomes, M.D., Ping An, M.D., Anne Bower, Ph.D., and Michael Province, Ph.D., along with a team of investigators from Case Western Reserve University, the Medical College of Wisconsin and the Institute of Child Health in London.
The origins of flamenco are obscure, but many scholars trace back its 15th-century Andalusian, the southernmost region of Spain, where local folk customs intermingled with Moorish, Jewish and Gypsy cultures. By mid-19th century, there were two types of ethnic singing in Andalusian and the integration of these styles.

In 1842, the first flamenco café opened in Sevilla, and by 1860s these cafés had spread throughout Spain. The flamenco guitar is traditionally made of Spanish cypress, and the flamenco dancer wears shoes with dozens of nails driven into the soles and holds in both hands in order to create complex rhythmic patterns.

Music and dance range from the tragic cante jondo ("profound") to the festive cante jolo ("light"). "Noche Flamenca" regularly performs in major cities throughout the United States, as well as at major festivals such as Barricada in Madrid in 1993 by artistic director Martin Santangelo, a native New York City whose Santangelo met a dance class — and Spain — in 1842.

Santangelo, a native New Yorker, has performed throughout Spain and the United States, appearing with Maria Barrio's Teatro Flamenco and Paco Rojo's Ballet Exponent, among others.

Barrio — a Madrid native, whom Santangelo met as a dance class in Spain — has appeared in numerous companies throughout Europe, Japan, and South and North America. She received a "Besse" award for Outstanding Creative Achievement 2000-2001.

Tickets are $24 for seniors and WUSTL faculty and staff, and $18 for students and children under 12. Tickets are available at the Edison Theatre Box Office, 935-6453; the St. Louis box office, 634-6222; or by calling 1-800-345-5678. Ticket prices are subject to change and will go into effect through Metrolink, 314-511-1011.

For more information, call 935-6453.

How to submit "University Events"

Submit "University Events" forms to Gina Pignataro by 3 p.m. — noon on the Thursday eight days prior to the publication date.
Contractors win two awards for Hilltop construction work

By ANDY CLINDENHARD

WASHINGTON University in St. Louis
November 11, 2005

WASHINGTON University in St. Louis宣布，两名承包商在希尔托普的建设工作中获得了两项奖项。具体信息如下：“We are thrilled about this news,” said Ken Baker, dean of libraries and vice chancellor for information technology. “The final product, as judged by our internal winning committee, was truly an accomplishment.”

The Department of Athletics is pleased to announce that Hilltop Construction Co. receive this prestigious honor as well. "The success of the project could not have happened without the efforts of several internal and external constituents. Hilltop played a major role in the venue setup and the restoration of space to original conditions," said Charlie Judkins, director of special events. The Olin Library project included renovating existing spaces, creating new rooms, office spaces, special collections and adding a café.
underwater. "I believe that the Undergraduate Research Symposium presents a valuable experience for students, mentors and others within the community," Caldwell said. "It allows for sharing of information across disciplines and provides an opportunity for students to present projects that might not normally gain attention in their respective fields due to time constraints.

Senior Pooya Agharwal, who presented research on her senior honors thesis on what is known as the "teaching effect." Her research has shown that taking a closed-book test with feedback should be encouraged as the most beneficial immediate test format for learning.

"The Undergraduate Research Symposium is a great idea and a fantastic opportunity to share my research not only with other undergraduates, but also with the larger University community," said Ashley A. Goldsmith, a senior who was looking to learn more about what research my peers are conducting in a variety of fields, which I find fascinating.

A May 2005 graduate of Arts & Sciences, Tim Bono is spending his way pursuing post-baccalaureate research with two of his undergraduate advisors, Randy L. Larsen, Ph.D., the William R. Stocking Professor of Human Values and Moral Development and chair of the Department of Psychology in Arts & Sciences, and Larry J. Lobis, Ph.D., professor of psychology. Bono's presentation, "The Split-Second Scenario: The Automatic Processing of Threat and Prejudice," will focus on the extent to which stereotypes and prejudices can be activated automatically.

His research is designed to elicit threat or associations toward other groups that can potentially result out of conscious awareness and that might not necessarily coincide with explicit reports of attitudes.

I am grateful for the opportunity to present this research at the symposium," Bono said. "It's one thing to discuss this project with my advisor in a narrow scientific world, but developing a presentation for a more general audience and putting all of my findings into layman's terms has allowed me to consider, and ultimately articulate, the real-world implications of my research.

I am also looking forward to being able to discuss this research project with other students who are conducting research. For more information, go online at www.wustl.edu.

No. 3 Emary stuns volleyball team

The 12th-ranked volleyball team took second place at the UAA Championship Nov. 4-5 in William, Man.

The Bears, who won their first three matches of the season (third-longest winning streak in program history), dropped their first match of the season in the championship match vs. No. 3 Emory stuns volleyball team.

Holman

"A 'tireless trustee' for the University"

Where Cheryl is chair of the board, and the St. Louis Science Center. Ray had been serving as chair of the board of Barnes-Jewish Hospital, and was a key contributor to the University's Board of Trustees. He will be greatly missed by the entire Washington University community.

Holman joined Mallinckrodt in 1980 and since then has served as the head of the division that primarily active only in breast tissues, and worked his way through the ranks before being named chair in 1994. He became president and CEO in 1992 and also served as director of LaSalle Gas Co. and BackAmerica Corp.

He is the past chair of the Greater St. Louis Economic Development Council and the United Way's 2000 campaign. In addition to his role on the University's Board of Trustees, Holman is served by his sons, Benjamin, Gregory and Charles; his stepdaughters, Erin McMullen and Nicole Fall; and his sister, Mary.

Visitation was Nov. 8; a memorial service was Nov. 9 at Belleville Heritage Gardens Cemetery.

In lieu of flowers, Holman's family has requested memorials be made to the St. Louis Center, 5010 Oakland Ave., St. Louis, MO 63108; the Barnes-St. Joseph University's Board of Trustees.

Holman's death is a great loss to the University community.
Daniel Ory, M.D., associate professor of medicine, has received a four-year, $200,000 grant from the Ara Parseghian Medical Research Foundation for research titled ‘Treatment of Neumann-Pick C (NPC) Disease Through LDL Activation’. 

Thomas Ferko Jr., M.D., associate professor of pediatrics, has received a one-year, $196,131 grant from the Cystic Fibrosis Foundation for the ‘Cystic Fibrosis Center’.

Michael M. Mueckler, Ph.D., professor of cell biology and physiology, has received a four-year, $180,000 grant from the American Diabetes Association for a Mentor-Basal Postdoctoral Fellowship program.

Daniel S. Schreiber, M.D., professor of medicine, has received a two-year, $125,000 grant from the National Institute of Neurological Disorders and Stroke for research titled ‘Neurotrophic Specific Transgene Expression Imaging’.

Russell Ogustorphoe, M.D., clinical fellow in pediatrics, has received a $110,000 grant from the Pediatric Infectious Diseases Society for the PIDS-St. Jude Fellowship Award.

Mark S. Dubois, M.D., assistant professor of orthopedic surgery, has received a one-year, $100,000 grant from the Aircast Foundation for research related to ‘Genome-wide Linkage Analysis for Idiopathic Clubfoot’.

Blondell F. Lancaster, Ph.D., pre-doctoral research scholar of cell biology and physiology, has received a two-year, $81,000 grant from the American Heart Association for research titled ‘Elaslant Mutations and Vascular Disease’.

Jun Li, Ph.D., postdoctoral research scholar of cell biology and physiology, has received a two-year, $41,071 grant from the American Heart Association for research titled ‘The Role of Connexin in Asymmetric Cell Division and Cell Motility’.

Linfeng Xu, M.D., research instructor in medicine, has received a one-year, $70,000 grant from the National Hemophilia Foundation for the NIH Career Development Award.

Jay Beland, M.D., clinical fellow of urologic surgery, has received a one-year, $35,000 grant from the Pediatric Research Grant Award from the Midwestern stone Institute for research titled ‘The Role of Ureter with Stone Passage and Effects of Hydration System’ and ‘Pharmacologic Manipulation of Ureter’.

Andrew Bowman, M.D., post-doctoral training grant recipient, has received a one-year, $25,000 grant from the American Heart Association for research titled ‘Characterization of Four-Channel Dynein by Magnetic Resonance Imaging’.

Tillmann Cyran, M.D., clinical fellow in internal medicine, has received a two-year, $50,000 grant from the Society for Cardiovascular Angiography and Interventions for research titled ‘New Nanoprobe Technology for Advanced 3-Dimensional Cardiovascular Imaging of Atherosclerosis, Injury and Deliver Anti-REST/Notch Therapy Following Angioplasty’.

Ryan Drenan, M.D., pre-doctoral trainee in cell biology and physiology, has received a two-year, $55,000 grant from the American Heart Association for research titled ‘PF51-dependent Regulation of Ras-Related Resistant to Antisense Cocktails’.

Greg Gunter, M.D., instructor of medicine, has been awarded a one-year, $50,000 grant from the National Cancer Institute for research titled ‘Modularity of Plasminogen Effect on Cancer Necrosis’.

Kerry Kelvin, Ph.D., pre-doctoral trainee in cell biology and physiology, has received a two-year, $55,000 grant from the American Heart Association for research titled ‘TGF Regulation of Cardiac Myocyte Development’.

Xiaohui Zeng, Ph.D., postdoctoral research scholar, has received a one-year, $45,000 grant from the American Heart Association for research titled ‘The Functional Association between Beta Subunits and Calcium Regulator Sites in BK Channels’.

Annie P. Connolly, M.D., professor of neurology, has received a one-year, $44,000 grant from the National Multiple Sclerosis Society for a pilot research project titled ‘Fatal Stereotactic Lesions for CNS Inflammatory Demyelination’.

Andrew Baker, Ph.D., assistant professor of biochemistry and molecular biophysics, has received a one-year, $43,000 grant from the National Sciences Foundation for research titled ‘Efficiency of Corneal Tissue and Antiviral Therapies: Acute Vesicular Neuritis: A Perspective, Randomized, Placebo-controlled Trial’.

Buck R. Rogers, Ph.D., assistant professor of radiology, has received a one-year, $43,000 grant from the Pediatric Infectious Diseases Society for research titled ‘PET Imaging for Early Detection of Breast Cancer With a Radiolabeled Paclitaxel’.

Shiming Chen, Ph.D., assistant professor of cardiovascular and visual sciences, has received a one-year, $27,000 grant from Prevent Blindness America for research titled ‘Chemotherapy for CVX-Aim and Photodynamic Therapy Regeneration’.

Michael M. Mueckler, M.D., assistant professor of surgery, has received two one-year, $37,200 grants from the Midwest Stone Institute for research titled ‘Physiologic Changes of the Ureter with Stone Passage and Effects of Hydration System’ and ‘Pharmacologic Manipulation of Ureter’.

John J. Lehman, M.D., instructor in medicine, has received a five-year, $50,000 grant from the National Institute of Diabetes and Digestive and Kidney Diseases for research titled ‘Computational Methods to Detect Episgenesis’.

Hugo F. and Ina Champ Urbauer Foundation, M.D., assistant professor of otolaryngology, has received a one-year, $50,000 grant from the Edward Mallinckrodt Jr. Professorship program.

Steven J. Weintraub, Ph.D., research assistant professor of surgery, has received a two-year, $350,000 grant from the National Institute of Diabetes and Digestive and Kidney Diseases for research titled ‘Tissue Engineering’.

Soo-Jin Cho, Ph.D., research instructor in molecular microbiology, has received a four-year, $375,000 grant from the National Cancer Foundation for research titled ‘The Staphylococcus aureus Accessory Olfactory System’.

Jill Kay, M.D., clinical associate professor of ophthalmology, died of complications from leukemia on Thursday, Oct. 27, 2005, at his home in Clayton. He was 76.

Born in New Haven, Conn., he came to St. Louis in 1955 to attend the School of Medicine. He earned a medical degree in 1957 and then completed an internship in the Department of Medicine at Barnes Hospital.

He also supervised University medical students for many years and was named a clinical associate professor of ophthalmology in 1982.

Kayes was a past president of the St. Louis Metropolitan Medical Society and a former board member of both Barnes Hospital and the School of Medicine’s Alumni Association. He is survived by his wife of 50 years, Barry Muckle Kayes; three sons, Jonathan Kayes, Matthew Kayes and Ethan Kayes; and six grandchildren.

Memorial contributions may be made to the Barry and Jack Kayes Lectureship in Ophthalmology, Attention: Dr. Michael Kass, Campus Box 8096, One Brookings Drive, St. Louis, MO 63130-4899.
The receiver leaps for the ball just as a defensive player leaps toward the receiver. As both players crumple to the turf, Matthew J. Matava, M.D., leaps into action.

Matava, associate professor of orthopaedic surgery and co-chief of the Sports Medicine Service at the School of Medicine, is the head team physician for the St. Louis Rams. He also provides orthopaedic services to the St. Louis Blues and to WUSTL varsity athletes. During the upcoming winter, he'll also serve as medical director for the U.S. Figure Skating Championships.

"I've been involved with sports all my life," he says. "I grew up in the St. Louis area, and I love how 'sports crazy' we are. Growing up here, I played virtually all of the sports that are plausible.

In fact, it was a sports injury in college that convinced him to specialize in orthopaedic surgery. When he was attending the University of Missouri-Kansas City, a school with a six-year program that combines medical school with undergraduate work, he also played for the varsity basketball team, the UMKC Fighting Kangaroos. A torn anterior cruciate ligament (ACL) ended his varsity basketball career, but the injury gave direction to his medical pursuits.

"My major interest is in knee surgery and knee problems, and the majority of my current practice is knee-related," he says. "All sorts, that is, related to the knee, and I can't help but think part of that is the result of my own experiences as a patient."

Today, many ACL repairs are done through small incisions, but Matava's operation was done the old-fashioned way. To this day, he sports a 12-inch scar on his knee. So, whenever one of his patients complains about a scar, Matava pulls up his pants leg and shows off that scar, demonstrating to patients how relatively good their own look is.

"After my ACL surgery, I thought a lot about sports injuries," he says. "Most patients are like I was, young and very motivated to get well. And they don't die. I realized that in sports medicine, I might not be saving lives, but I would be saving lifestyles."

**Biography & penmanship**

Matava was in grade school when he first decided on medicine as a career. Actually, he was still in kindergarten when his parents were told he should be a physicist.

"My teacher told my mom and dad that my handwriting was so poor I should become a doctor," he recalls with a smile. "That's a true story."

But young Matt didn't actually decide on his career path until he reached the seventh grade.

"I had an epiphany of sorts that year," he says. "It was my first experience studying biology and it just clicked. It was easy to learn, and I did well on the tests, and from that point on, my interest never wavered."

Growing up in St. Charles, he volunteered at St. Joseph's Hospital and enjoyed occasional glimpses of how physicians cared for patients. He also was impressed by the universal respect the doctors received, and he was excited by the profession like medicine that combined his love of biology with an ability to care for people. So he made up his mind to become a doctor and says from that point forward no other career choices even remotely piqued his interest.

**Caring for the pros**

After receiving his medical degree, Matava completed an internship in general surgery and a residency in orthopaedic surgery at the Emory University Affiliated Hospitals in Atlanta. He then completed a fellowship in sports medicine and arthroscopic surgery at the Cincinnati Sports Medicine and Orthopaedic Center before joining the Washington University faculty as an assistant professor of orthopaedic surgery in 1994. The Rams didn't arrive in St. Louis until the next year, so the first football players he cared for played at area high schools and for the University. "I have nothing but praise for the medical care those athletes receive from Rick Larson and his team of trainers and student trainers at Washington U.," Matava says. "Because it's a Division III athletic program, there aren't as many resources as you might see for athletic training and sports medicine in Division I. But they do outstanding work, and ours has become a nationally recognized sports program at least partly because of the excellence of the training staff."

Matava estimates he averages 90-90 hours of work per week, especially considering travel to road games during the Rams season and the hockey playoffs in the spring. In addition, he frequently lectures, inpatient, and serves as a team physician for the Rams. He's had the opportunity to play a role in helping many athletes recover, even after he's finished doing surgeries or seeing patients in his clinic.

"About 95 percent of my practice involves 'regular' patients," he says. "The stuff we do with the NFL and the NHL is 'on the side.' It consumes a lot of my day, but the bulk of my job involves those 'regular' patients rather than professionals."

Working with the teams can make it difficult to advance in academic medicine. Although Matava believes working with professional athletes brings benefit to his other patients and to the University, he admits his own research moves somewhat slowly, owing to the fact that most days contain only 24 hours.

"This is a major research center, and there's always pressure to do more," he says. "Fortunately our chairman, Dr. Gerberman, understands the time commitment it takes to do what we do."

Jim Anderson, the head trainer for the Rams, explains that a team physician has duties both in and out of season.

"With the way the game is today, you must keep your head in attention in relation to medical care," the Rams's team physician says. "But Matt has always been a true professional and is committed to his patients. He never takes it for granted when it ever takes it to provide the best possible care for the players."

"We also appreciate his optimistic viewpoint. Matt will say things like, 'All things considered, we're relatively healthy.' But sometimes it's tough to convince the coach of that!"

**Pounding the pavement & stirring the sauce**

Although his varsity career ended with a knee injury in the early 1980s, Matava remains a recreational athlete. He still plays basketball from time to time, but these days his primary exercise is running. He compares it to therapy; a time when he can be alone and solve problems in his own head.

His other passion is cooking. "I like to cook because I like to eat, and it's a form of relaxation for me," he says. "I always make them massive holiday dinners for the family. Sometimes I'll have to cook all night for two nights, but it's a lot of fun for me."

And Anderson says he appreciates Matava's culinary tastes and enjoyment. "That man likes to eat!" Anderson says. "We spend a lot of time on the road, so I always know I can count on going to the best 'froufrou' restaurants when Matt is with us."