THE POST

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SAVING PRIVATE EVERYONE

Caring for a new generation of soldiers

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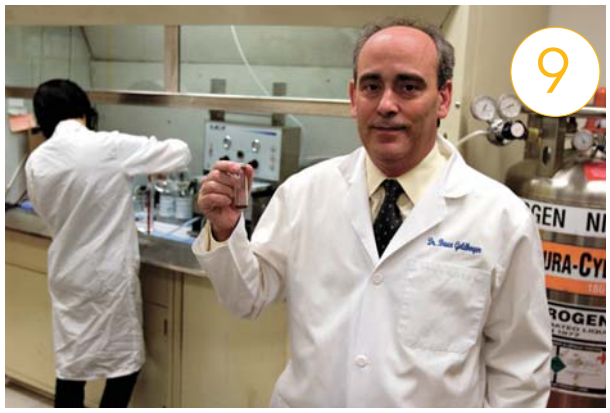
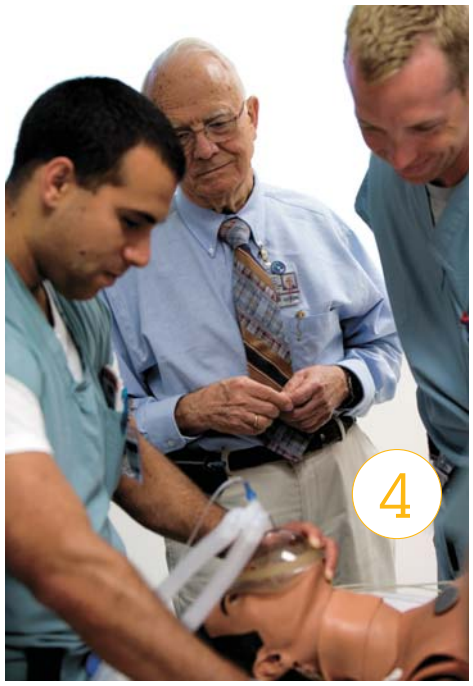
On the Cover

More than 32,000 soldiers have been wounded in Iraq and Afghanistan since the wars there began. Yet, the long-term task of caring for today's wounded soldiers is still only in its infancy. This month, The POST explains how UF Health Science Center clinicians and researchers are involved in caring for this new generation of veterans from battlefield to clinic. Shown here is Dr. Robert Redfern (right photo, center), an anesthesiologist at the UF College of Medicine who recently served in Iraq, with fellow soldiers near the 345th Combat Support Hospital.





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UP FRONT

Sweet tooth news

UF opens dental clinic for underserved children in Naples

On Dec. 3, the UF College of Dentistry opened a new pediatric clinic in Naples dedicated to treating underserved children who might not otherwise receive dental care. The NCEF Pediatric Dental Clinic, located on the Collier County campus of Edison College, includes a new pediatric dental facility and educational space. UF dentistry faculty and staff provide specialized pediatric dental treatment to Collier County's Medicaid-eligible and at-risk children during an estimated 15,000 patient visits each year. The project is a collaboration between the Naples Children and Education Foundation, UF, Edison College and Collier Health Services Inc. "We are very excited that patient care is under way and are grateful for the efforts and support of many people who worked so hard to make this a reality," said Teresa Dolan, D.D.S., M.P.H., dean of the UF College of Dentistry. "We are especially grateful to the Naples Children and Education Foundation trustees for their generosity and vision, which made this project possible." The Edison College district board of trustees approved a long-term land lease agreement with UF to give the facility an academic home. While the first floor of the two-story building will be dedicated to UF's clinical operations, Edison College will share use of second-floor classrooms and laboratory space.

Post it

BRIGHT FUTURES

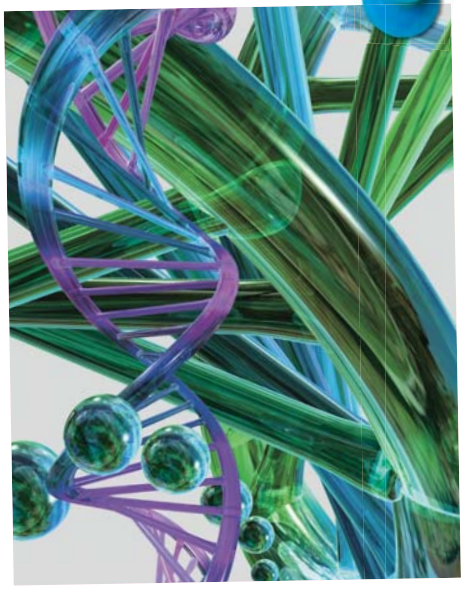
The J. Wayne Reitz Union transformed into a future pharmacists' meet-and-greet Jan. 22. During the College of Pharmacy's annual Career Days event, nearly 300 UF pharmacy students met with almost 30 retail companies and hospital pharmacists to talk about job prospects after graduation. Despite the country's current economic outlook, job prospects actually remain bright for UF pharmacy students, recruiters say. According to representatives from companies such as CVS/pharmacy, McKesson and Walgreens, UF-educated pharmacists are highly valued, with jobs waiting for them in Florida. An additional 80 pharmacy students in Jacksonville met with recruiters at their campus Jan. 23. Similar events will be held Feb. 6 for the St. Petersburg campus and Feb. 13 for the Orlando campus. Photo By Linda Homewood.

ON YOUR FEET

Being diagnosed with Parkinson's disease doesn't mean you have to stop dancing. Bring a partner and attend Dance for Life, the free weekly class for people with Parkinson's disease hosted at the UF Orthopaedics and Sports Medicine Institute's Movement Analysis Lab. The class takes place at 1 p.m. each Monday through April 29. Wear comfortable clothing and shoes, and don't worry if you don't have previous dance experience — all skill levels are welcome. Call Shands Arts in Medicine at 352-265-0151 for more information. Photo By Sarah Kiewel.

SCIENCE AS ART

Want to see what happens when science meets art? Combining artistic and scientific innovation was the key to winning the Elegance of Science contest, a competition recently held to find the most artistic images from science on campus. The winners will be announced at 4:30 p.m. Feb. 19 during a reception at the Marston Science Library. Two-dimensional entries were judged on merit, creativity and "success in translating between artistic and scientific vocabularies." Entries will be shown on a slideshow at the reception. Five of the 116 submissions will be on display in the library. The entries range from microscopic images to photographs and paintings, said Amy Buhler, reference librarian at Marston Science Library and a spokeswoman for the contest. All entries will be on the library's Web site, www.uflib.ufl.edu/msl/art, after the unveiling.



DANCING WITH THE DENTISTS

Get ready, UF College of Dentistry students, faculty and staff. The junior class is hosting this year's Bicuspid Ball — also known as the Premolar Prom — on Feb. 21. Come to The Courtyard at Steve's Cafe Americain from 8 p.m. to midnight for food, fun and dancing. The event includes dinner, select beverages and a DJ. Attire is semi-formal. Advance tickets are available at dental school clinics for $30 up to a week before the event. Tickets at the door will be more expensive.

The gentleman SCIENTIST

Patriarch of UF's anesthesia department passes away

By April Frawley Birdwell

In 2006, the year after he received the first of two Lifetime Achievement Awards from the UF College of Medicine, Joachim S. "Nik" Gravenstein, M.D., sat in the quiet lab that had just been dedicated to him on the ground floor of UF's Communicore Building.

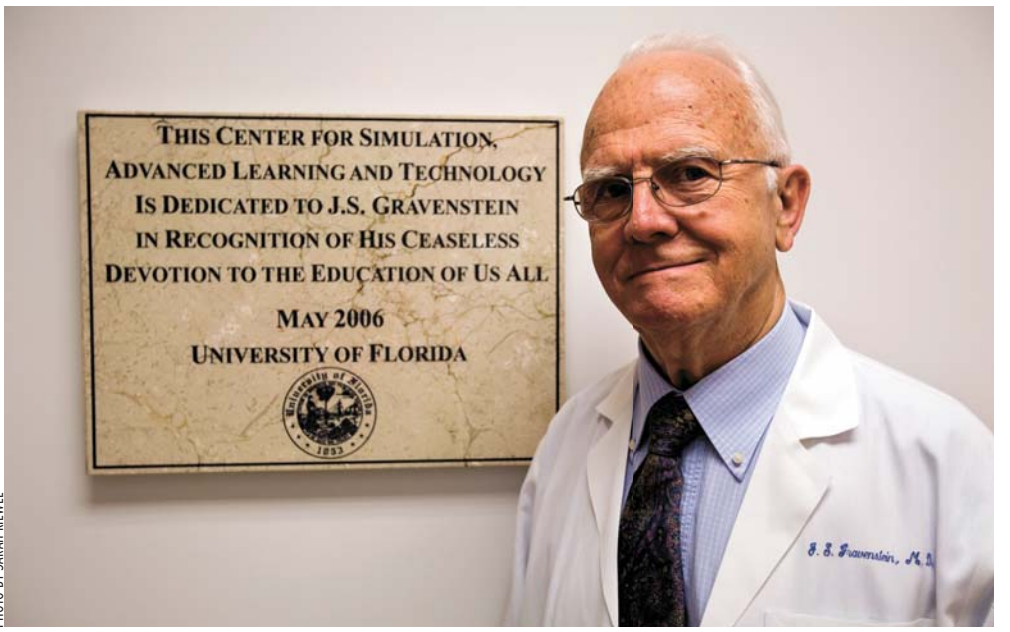


PHOTO BY SARAH KIEWEL

It was a typical sight. Gravenstein, a UF graduate research professor emeritus and founder of UF's anesthesiology department, was there by 7 a.m. most days to teach students and residents on the Human Patient Simulator, the lifelike, computerized mannequin resting on a table nearby, wired to monitors in wait of its next contrived crisis. Gravenstein co-invented the simulator, just one of the accomplishments that led to his name being etched across so many plaques during his career. But not the type to brag, Gravenstein steered the conversation toward an award *he* gave. To his wife.

"It occurred to me that the achievements of academicians like myself are very fleeting," said Gravenstein, who organized an event with his children to celebrate his wife's achievements. "I thought if anybody deserves an achievement award it's my wife. After she is retired, her achievements will still be running around and making noises. This is a continuation, rather than something that is quickly forgotten."

Gravenstein, who spent most of his career at UF and founded the College of Medicine's department of anesthesiology in 1958, died Jan. 16 after a battle with a colon cancer. He was 83.

"Nik Gravenstein was an exceptionally gifted and compassionate human being," said Michael L. Good, M.D., interim dean of the College of Medicine and a former student of Gravenstein's. "As a physician, he healed many. As a teacher, he helped students of all ages learn. As a mentor, he helped so many of us develop successful, rewarding and meaningful careers and lives. Nik Gravenstein leaves the world in a much better place than how he found it. I am so fortunate to have had the opportunity to know and learn from this great man."

The Human Patient Simulator, which Gravenstein developed with Good, Sem Lampotang, Ph.D., and other UF researchers, was just one example of his commitment to improve patient safety, said Jerome Modell, M.D., a former UF chair of anesthesiology. Gravenstein co-founded the Anesthesia Patient Safety Foundation and studied ways to improve patient safety in anesthesia, writing several books on the subject. Current national efforts in patient safety trace back to the APSF, and from there, to Gravenstein.

"He devoted his life to patient safety," Modell said. "When Dr. Gravenstein started the division of anesthesiology in 1958, the unexplained death rate from anesthesia was one in 2,000 patients. Now, it's one in 200,000. Nik didn't do it alone but he was the first person to really push it and advocate for safety in anesthesia. I think that is his greatest contribution."

Gravenstein was the first, and only, member of the anesthesiology department when the teaching hospital, now Shands at UF, opened. Technically, he was still a medical student when he was hired, although he was working on his second medical degree. After earning his first medical degree in 1951 in his native Germany, Gravenstein was invited to train at Massachusetts General Hospital. There, he noticed gaps in his medical education, so he enrolled at Harvard Medical School while completing his residency and fellowships.

Gravenstein stayed at UF until 1969. During that time, several of his eight children were born at Shands at UF, including Ruprecht, the first baby born at the hospital in 1958.

After 10 years at Case Western Reserve University, he returned to UF. In the succeeding years, his research with UF colleagues led to numerous findings and patents, including the Human Patient Simulator, the Virtual Anesthesia Machine and other devices to improve anesthesia delivery and patient safety.

"His dedication to patient safety has left the world a better place for his presence," said Kayser Enneking, M.D., chair of anesthesiology. "We will miss him and do our best to live up to the ideals that he embodied in his daily life. It was our great privilege to have known 'The Classic' Gravenstein. He remains an inspiration to us all."

Gravenstein is survived by his wife, Alix; eight children, Nikolaus Gravenstein, Alix Gravenstein Pastis, Frederike Gravenstein, Dietrich Gravenstein, Stefan Gravenstein, Ruprecht Gravenstein, Constanza Gravenstein Goricki and Katarina Gravenstein Brient; and 16 grandchildren. Dietrich and Nik are on the College of Medicine faculty. P

Lasting gift

Anyone who wishes to honor the accomplishments and memory of Dr. Gravenstein may do so by making contributions to the I. Heermann Anesthesia Foundation Inc. (EIN 59-3349331). Checks should be made payable to the I. Heermann Anesthesia Foundation Inc. and mailed to P.O. Box 100254, Gainesville, FL 32610-0254.

The return OF green

UF to honor College of Medicine-restored camellia garden

Story by April Frawley Birdwell Photos by Sarah Kiewel

The dry, winter grass crunched under Linda Luecking's feet as she trudged along the path through the garden, pausing every few steps to point to another landmark — the stage, the winding brick pathways. Of course, only she can see them, at least for now.

In the patch of land and trees between Mowry Road and the Shands Cancer Center, Luecking sees the camellias restored and healthy, a cascade of pinks and whites. She sees a children's garden with an earthworm farm. She sees a stage and a meditation garden with a water fountain to dull the sounds of Archer Road traffic.

It will be awhile before vision completely matches reality. But Wilmot Gardens, named for UF horticulturalist and camellia expert Royal James Wilmot, is already a different place than it was in 2006 when College of Medicine leaders and a cadre of volunteers began nursing it back to green. After years of neglect, the once-famed camellia garden lay in near ruin. Hurricanes had knocked down tree branches, pine beetles had invaded and invasive vines and overgrown flora formed a tangled twist that choked plant life in the garden.

"It was like the land time forgot," said Luecking, a project coordinator for Wilmot Gardens. "You could not walk north, south, east or west."

But with thousands of volunteer hours spent tending the land and truckloads of debris hauled away, the garden is on the mend. And, more than 50 years after the garden was dedicated to Wilmot, UF will honor it March 20 with the dedication of a historical marker at the site, 175 W. Mowry Road on the UF campus.

"All of us who have been associated with this project from the beginning are pleased the university has designated a historical marker for Wilmot Gardens," said C. Craig Tisher, M.D., who started the project during his tenure as dean of the College of Medicine.

Founded in the 1940s, the garden once boasted the country's largest publicly owned collection of camellias and was a popular site for weddings. But through the years, as budgets were cut and ownership of the ground changed hands, the garden was forgotten. Leaders were actually considering the space for a new building when Tisher decided to save it.

After hearing about plans to restore the garden into a space for healing, Luecking knocked on Tisher's door and asked what she could do to help. Luecking had a special attachment to the garden. She and her husband, a master gardener, had toyed with the idea of holding their own wedding there in the 1970s. And, as a survivor of breast cancer, she loved the idea of a healing garden where patients, staff and students could visit to think and reflect.

"What has always been our goal is to pick up where medicine leaves off," Luecking said. "They heal the body, and we want to heal the mind and spirit."

The project began with $40,000 in seed money from UF, but has mostly been sustained with donations since then. Volunteers are doing the bulk of the work, but the college did hire a landscape architect to design the new layout of the garden. The scope of the project is dependent on how many donations the college receives for it; bricks that will line the walkways are being sold to raise money.

If completed according to plan, the entire project — including renovation of a small building on the grounds — would cost about $1 million, Luecking said.

Luecking also hopes to make the garden a place for art. She has already started an Art in the Garden performance series with a grant from the Florida Division of Cultural Affairs as well as a relaxation series featuring tai chi and other activities.

Aside from the events, of course, there is always the garden's main attraction — the flowers.

"I would encourage everyone in the greater Gainesville community to pay a visit to the garden, especially now," Tisher said. "The camellias and the azaleas are in bloom. It's beautiful." P

Upcoming events at Wilmot Gardens

Historical marker dedication: 10 a.m. March 20

Lisa Lynne & George Tortorelli performance: noon March 4

David Beede & The Cosmic Fool performance: noon April 1

PHOTO BY PRISCILLA SANTOS

PHOTO BY PRISCILLA SANTOS

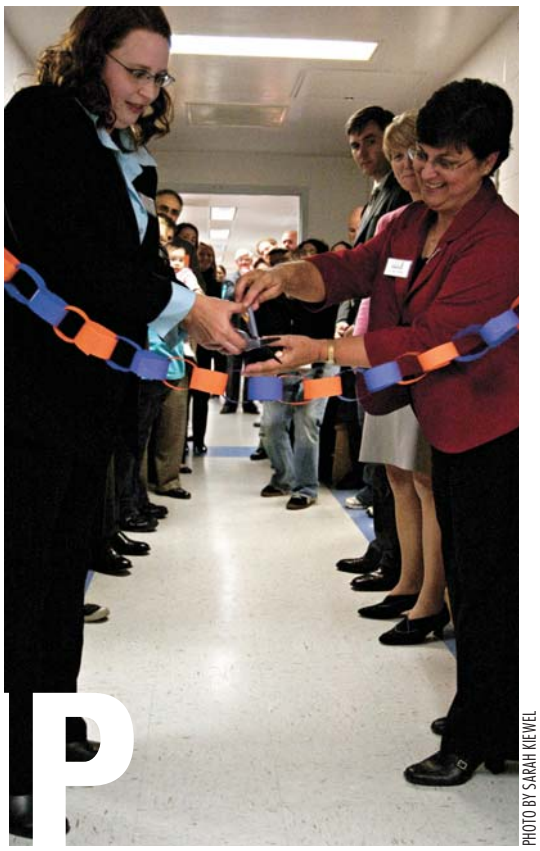


PHOTO BY SARAH KIEWEL

On the first day of school at the HSC's Baby Gator Child Development and Research Center, Ryan (top, left) entertains an audience while Marcus (bottom left) gets in some crawl time. Two weeks later, a ribbon-cutting ceremony (bottom right) was held at the center.

BABY CHOMP

School in session for HSC's first class of 'Baby Gators'

By Christine Velasquez

Wade into one of the classrooms tucked in an obscure corner of the UF Health Science Center and you'll find yourself knee-deep in happy toddlers and surrounded by the clapping sound of plastic toys being spilled onto the floor.

This isn't your average child-care center, however.

The Baby Gator Child Development and Research Center features a play-based curriculum, its teachers typically work with children based on their developmental ability rather than age, and it gives students and faculty opportunities to conduct research.

That's why Madhuri Sankuratri, M.D., a clinical assistant professor of infectious diseases in the College of Medicine, and her husband, Venkat, enrolled their daughter, Srivani, 2, in UF's second and newest Baby Gator branch months before it opened Jan. 5.

"We (are) comfortable knowing that Srivani is in a stable environment and receiving quality care," Sankuratri said.

The new center, located on the ground floor of the Health Science Center's Human Development Building on Newell Drive, is funded by the colleges of Medicine and Public Health and Health Professions and serves children ages 6 weeks to 5 years. Slots are allotted based on each college's financial contribution: 106 slots are reserved for College of Medicine affiliates and six for PHHP. Children of full-time students, residents, postdocs, fellows and faculty of those colleges can attend the center.

"Balancing parenthood and professional careers, particularly in health care, particularly in medicine, is more challenging than it's ever been," said Michael Good, dean of the College of Medicine, at the center's ribbon-cutting ceremony Jan. 20. "So the College of Medicine is very proud to partner with Baby Gator and to offer this safe, healthy, thriving environment in which children can grow and learn."

Researchers are also welcome to team with Baby Gator, says Pam Pallas, director of the Baby Gator Child Development and Research Center. The original Baby Gator center on Village Drive has participated in numerous studies on child development, disabilities, parent-child relationships and child behavior.

For enrollment eligibility and more information, visit www.babygator.ufl.edu or call Melinda Silver, assistant director for enrollment, at 352-273-8000 or e-mail mrsilver@ufl.edu.

Lessons from Africa

Medical students study the Gambia's health system

UF medical students spent the summer researching the Gambia's health system. Shown here are Medical Humanities Director Nina Stoyan-Rosenzweig, Nghi Lam and medical students John Martino, Kunjal Gandhi, Menna Haider, Archna Eniasivam, Janeen Alidina, Mariana Khawand and Ryan Gerrity.

By Anne Myers

Last summer, seven UF College of Medicine students headed to the Gambia with 14 suitcases of supplies, ready to volunteer and collect data for a research project. Today, they are working hard to make that experience possible for future classes of medical students.

Last year, Menna Haider, then a first-year medical student, became interested in creating a clinical and research project in the Gambia when she heard about a similar opportunity with the Shands Arts in Medicine program. After checking the feasibility of such a program and putting together a group of interested students, Haider and the new group began to work out the details of their research project and made plans to go to the Gambia.

After months of planning and consulting with faculty members, second-year medical students Haider, Ryan Gerrity, Archna Eniasivam, Janeen Alidina, John Martino, Mariana Khawand and Kunjal Gandhi and fourth-year medical student Raj Mehta found themselves in the Gambia. The medical students visited a small village called Kubuneh, a midsized hospital in Brikama, and the Royal Victoria Teaching Hospital in Banjul to collect data for their research.

Their project focuses mainly on trauma care in the Third World and how triage systems work there. And for the month they were there, the students shadowed physicians in the hospitals and interacted with medical students at the 5-year-old medical school at Royal Victoria. They brought supplies everywhere they went, and the people seemed incredibly grateful, Haider says. They also spent time in a small village, setting up a day clinic to provide medications and health care to those who came.

"We were going to a place that had never seen any medical-related staff whatsoever so there were just a plethora of complaints and issues that we had to deal with," Gerrity said.

After a month, the seven students returned home with endless data to analyze.

Although they intend for this to be an ongoing research project available for future students to continue studying, they already have come to some basic conclusions. Chief among these findings, unfortunately, is that the Gambia's triage system is not nearly developed as it could be. The major problem is a lack of records, the students found. Prescriptions are written on scraps of paper and records are kept with the patients, not the hospitals.

"They might be trained to deliver care, but they aren't trained to record everything they need to so that the next person to take care of that patient has all the information they need," Haider said.

Although the triage system may be a mess, there are some positive aspects of the Gambian health-care system. The country has a much better vaccination system than the United States and offers health care at a very low cost, according to the students' research. A trip to the doctor is only $1, and that includes prescriptions and treatments. The Gambian health system also provides free HIV treatment, something that costs thousands in the United States.

In making this a sustainable project, group members hope to work with the contacts they made in the Gambia. Haider said the students also plan to share their data with UF College of Medicine faculty and Shands at UF leaders to help craft suggestions for improvement they can offer to the Gambian doctors and health workers they met.

A group of Gambian medical students also are trying to come to UF next summer for six weeks. Many of the UF students hope to return to the Gambia as well.

"All of the people were so accepting while we were there," Haider said. "They still write to us by e-mail and ask us when we are coming back."

Building better nurses

New program to help nurses pursue advanced clinical education

By Tracy Brown Wright

This fall, the UF College of Nursing will begin offering a postbaccalaureate doctor of nursing practice program, allowing people who have a bachelor's degree in nursing to enter directly into study for the Doctor of Nursing Practice degree. UF is the first school in the state to begin accepting applications for the program and the first to receive approval from the Florida Board of Governors.

"The UF College of Nursing was the first nursing program in Florida to offer the Ph.D. in Nursing Science for those seeking a research career," said Kathleen Ann Long, Ph.D., R.N., dean of the College of Nursing "We will again be at the forefront of a changing paradigm for nursing education by offering the B.S.N.-to-D.N.P. as the terminal degree for those seeking careers in advanced practice. We are proud to have a leadership role in offering the D.N.P. program to baccalaureate nursing graduates."

The B.S.N.-to-D.N.P. program complements the college's post-master's D.N.P. program started in 2006. Students with bachelor's degrees in nursing will be able to prepare for advanced practice careers in family, pediatric, adult or acute-care nursing. The program will prepare student-nurses for the future of health care and will equip them with educational backgrounds comparable to other health professionals. The D.N.P. degree follows a trend toward clinical doctorates in other fields, including pharmacy and physical therapy.

The American Association of Colleges of Nursing has recommended that the Doctor of Nursing Practice degree replace the Master of Science in Nursing degree as the entry level for advanced practice by 2015.

Until now, students in Florida who wished to obtain a D.N.P. credential had to already hold a master's degree in nursing. UF is one of 63 programs nationwide that offers a DNP program; however, most programs require candidates to have a master's degree before entering DNP study.

UF will continue to offer its master's degree program in several specialties, including neonatal nursing, nurse midwifery, psychiatric-mental health nursing and public health nursing, contingent on grant funding, for a transitional period. By 2012, these specialties will also move to the D.N.P. level. In keeping with national standards, the advanced generalist Clinical Nurse Leader program will continue as a master's degree offering.

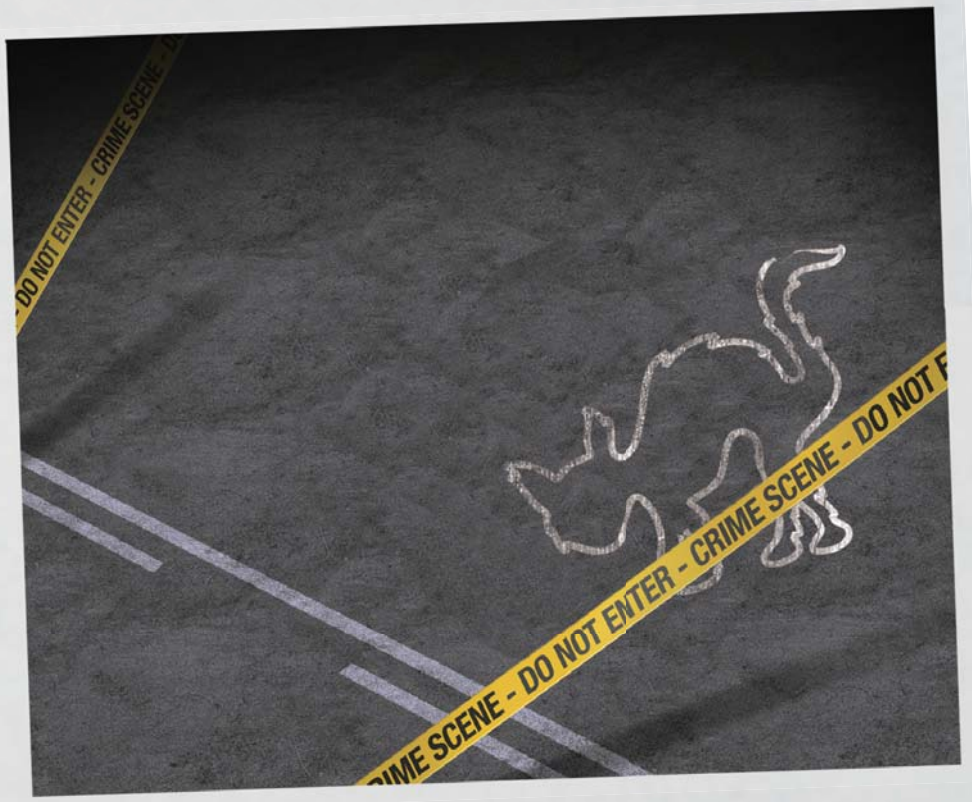
PHOTO BY SARAH KIEWEL

KATHLEEN ANN LONG, PH.D., R.N.

The B.S.N.-to-D.N.P. program consists of 93 credits and lasts four-and-a-half to five years for part-time students, and two-and-a half years for full-time students. The deadline for the first review of applications is March 15. Applications will continue to be accepted until May 31 on a space-available basis. Those interested in applying should visit the college's Web site, www.nursing.ufl.edu. P

Driving *down under*

Keeping older drivers safe on the road (albeit on the left side, in Australia's case) was one of the topics presented by William Mann, Ph.D., during a six-city lecture tour in southern Australia in November. Mann, the chair of occupational therapy in the College of Public Health and Health Professions, was named the Gary Andrews Visiting Fellow by the Australian Association of Gerontology. He presented the keynote address at the association's annual conference in Fremantle on the role of technology, such as assistive devices, in supporting seniors' independence. Mann's itinerary also included stops at universities and hospitals in Brisbane, Newcastle, Sydney, Adelaide and Perth. While visiting the University of Wollongong, Mann (far right) met with Sharon Wall (from left) of the National Council of the Australian Association of Gerontology, and Rob Gordon and Chris Poulos of the University of Wollongong. — *Jill Pease*

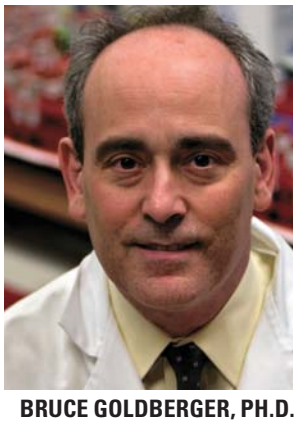


FORENSICS WITH FUR

UF teams with ASPCA to start animal forensic science program

By Czerne M. Reid

Call it "CSI: Animal Edition." But this isn't television. In this real-life drama, necropsies, assessment of skeletal remains for abuse and trauma, and crime scene analysis of hair, fibers and bloodstains are used to solve cases of cruelty to animals.



BRUCE GOLDBERGER, PH.D.

UF officials announced in January that they are partnering with the American Society for the Prevention of Cruelty to Animals to form the first Veterinary Forensic Sciences Program dedicated to the teaching, research and application of forensic science in the investigation and prosecution of crimes against animals. The program will handle cases from around the country — possibly up to 200 within the first two years — and provide consultancy and training.

The collaboration between the university and the ASPCA started a year ago, when the two institutions organized a conference on the use of forensic science to investigate animal cruelty. Coordinators expected only a few dozen attendees, but instead were met by nearly 200 people from across the United States and nine other countries.

That unanticipated interest helped fuel the development of the new program.

"This is a newly emerging field," said forensic toxicologist Bruce Goldberger, Ph.D., director of the William R. Maples Center for Forensic Medicine at UF. "We are translating our knowledge of forensic science to a new field devoted to solving crimes against animals."

The Veterinary Forensic Sciences Program will dramatically increase the number of professionals trained in forensic investigation of animal cruelty cases by potentially hundreds each year, Goldberger said. In doing so, it could also help uncover instances where the abusers are also targeting people, experts say.

Housed at the Maples Center, the new program is being established with an initial gift of $150,000 and a commitment of support for the next three years from the ASPCA.

Over the last few years, the number and stringency of laws relating to animal cruelty has increased. Penalties can include extended prison time, such as in the high-profile dogfighting case involving professional football player Michael Vick.

"That means the standards of investigations and of the science used in documenting what has happened to animals are much, much higher than even five years ago," said Randall Lockwood, Ph.D., ASPCA senior vice president for anti-cruelty field services.

There is no national tracking of animal cruelty cases — the new Veterinary Forensics Sciences Program will allow for better collection of such data. Each year the ASPCA investigates more than 5,000 cruelty cases and arrests or issues summonses to more than 300 people. Scenarios include simple neglect, abandonment, animal hoarding and blood sports such as dogfighting. On the basis of media accounts, the animal advocacy Web site pet-abuse.com reports 1,620 high profile cases in 2008.

The new program at UF will offer undergraduate and postgraduate courses and continuing education for veterinarians, law enforcement personnel, animal control officers and others.

Courses include forensic entomology, buried-remains excavation, bloodstain pattern analysis, bite-mark analysis and animal crime scene processing. Trainings will be done in classroom settings, online and through the just-formed International Veterinary Forensic Sciences Association.

One such course — to be offered next spring through the UF College of Veterinary Medicine — will include seminars on various forensics topics, as well as a mock trial in which students will play the defendants in animal-cruelty cases. Real prosecutors and media professionals will take part to enhance the learning experience. Often, veterinarians presented with cases of animal abuse or neglect are not sure what to look for to establish cause and manner of death, or to prove that a crime was committed.

"Veterinarians are frequently asked to participate in cruelty investigations, yet we don't receive special training on that in veterinary school," said Julie Levy, D.V.M., Ph.D., director of the Maddie's Shelter Medicine Program at UF. "There is a substantial unmet need for that training to be provided to veterinarians." P

The thin crowd

Group treatment may help children achieve healthier weights

By Jill Pease

DAVID JANICKE, PH.D.

Group-based treatment programs may effectively combat childhood obesity in rural communities, according to a new UF study.

Children who participated in one of two group programs — family-based or parent-only — were less overweight compared with children in a control group. The findings appeared in the December issue of *Archives of Pediatric and Adolescent Medicine*.

The study is the first to assess the effectiveness of a child weight-management program in a real-world, community-based setting for families in rural areas.

"Given the scope and seriousness of obesity in America and the limited access to services for children in rural settings, there is a pressing need for programs that help rural families adopt healthy dietary habits and increase physical activity," said David Janicke, Ph.D., lead investigator and an assistant professor in the College of Public Health and Health Professions' department of clinical and health psychology.

More than 16 percent of rural children are obese compared with 14 percent of urban children. Factors contributing to the disparity include greater rates of poverty in rural areas and geographical barriers that limit access to medical care, healthy foods and facilities for physical activity.

The study involved 93 children and their parents from four rural counties in Florida. The children were between the ages of 8 and 14 and had a body mass index, or BMI, above the 85th percentile for age and sex, based on growth charts from the Centers for Disease Control and Prevention. Families were randomly assigned to one of three four-month treatment groups: family-based, parent-only or a control group made up of families on the treatment wait list.

On average, children in the weight-management programs experienced greater decreases in BMI scores compared with children in the control group six months after treatment. Compared with their pre-treatment levels, children in weight-management groups were 4 percent less overweight, and children in the control group were about 3 percent more overweight at the end of the six-month period.

Although the weight changes may appear modest, they are in line with the researchers' goal of helping children make gradual changes to their diet and lifestyles.

"When working with children it's important to introduce lifestyle changes slowly and make it fun, otherwise they may become resistant," Janicke said. "Making big changes in their diets could lead to unhealthy habits like skipping meals, eating disorders or weight gain." P

Survey says ...

How UF-developed survey scores could help docs better treat kids

By April Frawley Birdwell

I-CHAN HUANG, PH.D.

Pediatricians usually have about seven minutes to sit face-to-face with patients during a typical visit. It's barely enough time to perform an exam, let alone assess how a child is faring at school or at home.

But understanding how well children function emotionally and socially could help pediatricians pinpoint health problems that might otherwise go undetected. Now, UF researchers have developed a way for doctors to measure and interpret quality of life to understand how it affects a child's health, according to findings published online last week in the journal *Value in Health*.

Led by I-Chan Huang, Ph.D., a UF assistant professor of epidemiology and health policy research, UF researchers have established a range of scores that will allow doctors to understand the results of a quality-of-life survey in the same way they understand a blood pressure test.

"We believe the use of this new method allows us to expand the usefulness of the pediatric quality of life survey to capture different aspects of health status," Huang said.

The survey, called the Pediatrics Quality of Life Inventory, is widely used by researchers to measure whether certain treatments improve quality of life for patients, but doctors previously had no way to do the opposite — find out if quality of life could be linked to certain health problems. Doctors could not interpret whether test results were normal or red flags for hidden health problems because there was no baseline for normal, yet.

To establish baseline scores for the survey, the researchers interviewed 1,745 parents of children enrolled in two state-funded health programs, pairing quality of life results with previously recorded health information.

The survey includes questions about different aspects of children's lives, from how well they get along with peers to whether they have trouble walking around the block.

Although it won't replace a doctor's clinical exam, the survey could arm pediatricians with new information that could help them better treat their patients, says Lindsay A. Thompson, M.D., a UF pediatrician who collaborated with Huang on the study.

"It's complementary information, and it's going to reveal something different than what I can get from my clinical exam," Thompson said. "It's a new set of data that physicians can use in an easy way." P

PHOTO BY APRIL FRAWLEY BIRDWELL

The problem hunter

Gabriele Dupre retires after 20 years combing UF contracts for trouble

Gerald Kidney (left) introduces Gabriele Dupre at her retirement party in the Health Professions/Nursing/Pharmacy Complex. Dupre, the former director of contracts and related services for the HSC, is retiring after 20 years at UF.

By Jessica Metzger

Gabriele Dupre compares reviewing contracts to a game, using her logical mind and attention to detail to comb through each page. She reads each word carefully, each line thoughtfully, searching for a word, phrase or even punctuation that could suggest something unfavorable for UF.

"It is like going on a hunt or a chess game, trying to figure out where there's an inconsistency," Dupre explained. "Or playing devil's advocate — predicting things that can go wrong. Every 'and,' 'or' or comma is important to the interpretation of a contract. It was fun to make sure it couldn't be misinterpreted."

As the director of the Office of Contracts and Related Services, Dupre worked diligently to ensure each contract for any college in UF's Health Science Center was fair and clear. Dupre retired in January, leaving a legacy of dedication and hard work after 20 years with UF.

With almost 90 clients, and nearly 1,500 contracts to draft, review and revise per year, the Office of Contracts and Related Services is integral to the HSC. Each of the six colleges and numerous centers and departments arrange contracts with partners all over the world, generating millions of dollars for the HSC.

Long before considering law as a career, Dupre emigrated from Berlin to Miami when she was 27. The move was a massive culture shock. It was in Miami, while working as a mother, translator and teacher, Dupre decided to study law. She thought becoming a lawyer would help her better learn the laws and bureaucracy of the United States.

Dupre, who specializes in health law and health law contracts, earned her law degree at UF, attending law school while her son earned his undergraduate degree.

She had spent four years working in the UF Office of the Vice President and General Counsel when Gerald Kidney, now interim director of contracts and related services, hired her 16 years ago as a contract attorney for the HSC. Dupre's then-boss, Pamela Bernard, warned Kidney that Dupre was "very intense."

"I've never regretted hiring her. She's an excellent attorney and an excellent human being," Kidney said. "Her greatest contribution is her devotion and dedication to works of the office and the university in general. Intensity can be used to describe her approach, but her work was very top-notch because of it."

Isis Carbajal de Garcia, who worked with Dupre in the UF Office of the Vice President and General Counsel, describes her longtime friend as analytical.

"Even when there were matters that I would not even consider, she was very careful and would look closely at issues," said Carbajal, now deputy general counsel at Florida International University. "She is so thorough and would look into issues others might miss."

Martin Smith, the director of the HSC's Self-Insurance Program, has known Dupre for more than 15 years and said her attention to detail made their working relationship great.

"She understood our concerns, and she and her staff addressed them before we had to," Smith said.

Dupre is fluent in German, English and French. She calls herself bicultural, as an American citizen who is still very German. This bridging between cultures has allowed for a "very different perspective," she said.

"It's all part of a multifaceted life," Dupre said. "You love both parts of it, the bad and the good."

Dupre said she will miss her colleagues and friends at UF the most.

"I won't miss the parking hassles," she joked.

Her colleagues said they will miss her work ethic and talents.

"I won't have anyone to translate volumes written in German," Smith laughed. "Gabriele was so easy to work with and understood our issues."

Kidney said the office will miss her integrity.

"She was very focused on doing what's right," he said.

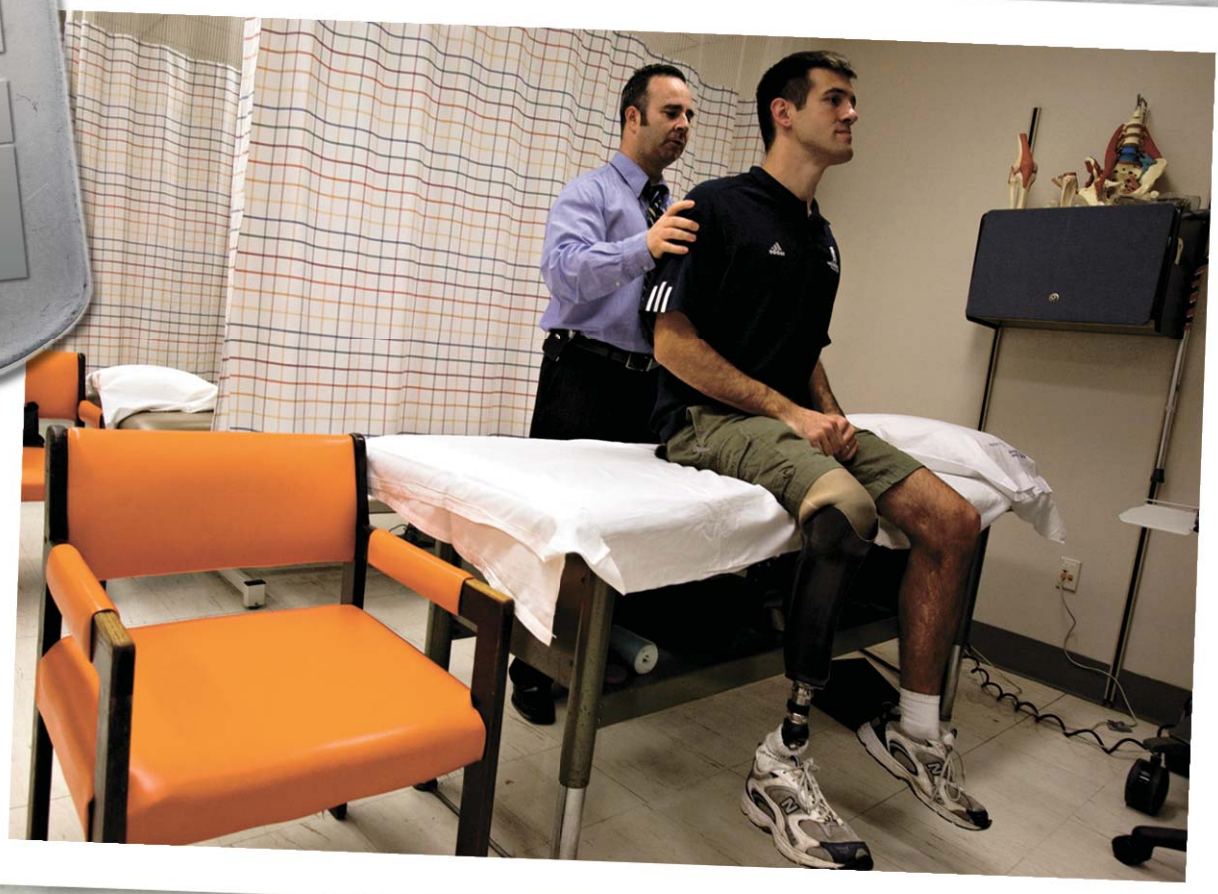
Carbajal agreed and said UF was fortunate to have Dupre.

"She stands up for her personal values and the values of the institution," Carbajal said. "She has always done what's right for the university and what was right under the given circumstances."

STORY BY APRIL FRAWLEY BIRDWELL

HOMECOMING

PHOTOS BY SARAH KIEWEL



THE TASK OF CARING FOR TODAY'S RETURNING SOLDIERS IS JUST BEGINNING. THIS MONTH, THE POST SHARES HOW HSC CLINICIANS AND RESEARCHERS ARE INVOLVED.

The explosion came from his left.
Black.
Silence.

Capt. Jonathan Pruden tried to steer the Humvee to a stop as it slid along the road in Eastern Baghdad. He couldn't see through his left eye. His left arm didn't work. His legs didn't work. He couldn't hear, and something sprayed against the windshield. For a second, he thought the roadside bomb must have hit the vehicle's hydraulic line … until he remembered there wasn't a hydraulic line there. It was him, his blood spraying the windshield.

"I have the wonderful distinction of being one of the first IED (improvised explosive device) casualties over there," says Pruden, now a retired U.S. Army officer who was injured July 1, 2003, just five months after the U.S. invaded Iraq. "I was in a softskin Humvee. No doors. I caught 173 pieces of shrapnel and one bullet."

Twenty operations and seven hospitals later, Pruden still has 153 pieces of shrapnel inside his body, including one chunk lodged near his spine and tiny flecks embedded in his skin and eyelid. Surgeons

amputated his right leg below the knee in 2005, and he still feels pain from the softball-sized hole that was in his back. His left foot lost a toe, and he suffers from nerve damage there.

More than 30,000 U.S. soldiers have been wounded in Iraq since the beginning of combat operations there in 2003, according to the Department of Defense. Like Pruden, more than 13,000 of these soldiers never returned to combat.

It's the first major influx of returning soldiers to the United States since Vietnam, yet a lot has changed since then. Because of improved medical techniques and technology, more soldiers are surviving what were once considered fatal injuries. And because of the increased use of IEDs, also known as roadside bombs, veterans are returning from Iraq and Afghanistan with multiple wounds and traumatic brain injuries.

"The signature injury of this war is traumatic brain injury due in part to remarkable advances in battlefield medicine," says Bradley Bender, M.D., chief of staff of the North Florida/South Georgia Veterans Health System and a UF professor of medicine. "Previous wounds that would have been lethal no longer are.

"The country is responsible for these people," he adds. "The cost of ongoing veterans' care will probably exceed the amount it costs to fight the war itself. If you look at the history of military injury, up until Vietnam, the ratio of injuries did not exceed two to one. Now, the ratio is eight injuries to every death."

Casualties are down now in Iraq — although they are up in Afghanistan — and leaders are pressing to withdraw troops within the next 16 months, but the more long-term task of caring for today's wounded soldiers is still only in its infancy. It's a journey that begins on battlefields and moves from combat support hospital to military hospital to rehabilitation clinics to Veterans Affairs medical centers and even to the private sector.

Although UF is not directly involved in caring for wounded soldiers and veterans, its faculty members are, serving in battlefield and military hospitals, in VA medical centers and in labs, looking for the best ways to rehabilitate warriors wounded in service and improve the lives they will lead after war.

"We draw on the expertise at UF, and we would not have as successful a program as we have without that affiliation," says Paul Hoffman, M.D., associate chief of staff for research with the North Florida/South Georgia Veterans Health System and a UF research professor of neuroscience. "We could not exist as a health-care facility that does this kind of high-quality health care and research if we did not have the University of Florida right across the street."

OVER THERE

The next thing Pruden remembers after the blast is lying in a pool of warm liquid on the ground outside the Humvee. Motor oil, he thought. It was blood. Fellow soldiers placed tourniquets around his legs to stop the bleeding and lifted him into a truck to get him to a doctor.

After an initial stop at a soccer stadium where a physician's assistant covered his eyes — one of his corneas was cut — and started an IV while he lay on a card table, Pruden was flown in a Black Hawk to the closest combat support hospital, where doctors began operating.

These mobile medical centers are the primary line of defense for treating wounded soldiers. After undergoing initial surgeries and treatment here, soldiers with more extensive injuries are then flown to military hospitals in Europe and eventually back to the United States.

The rooms are air-conditioned tents, with operating rooms set up in prefabricated buildings, and because of the sand, everything tends to be dusty, remembers Lt. Col. Robert Redfern, M.D., a UF professor of anesthesiology at the College of Medicine-Jacksonville.

"The conditions were somewhat primitive, but the medical care provided was outstanding," says Redfern, who served in the 345th Combat Support Hospital in Tikrit in 2008. "The equipment is as good as we have here. They had everything you would need to run a community hospital, a lab, CT scanners, everything."

Although in his 50s, Redfern decided to join the U.S Army Reserves in 2007. It was something he'd always thought about doing. He admires soldiers, he says. His father had been a fighter pilot in World War II, and his brother spent 20 years in the U.S. Army. With two wars and soldiers in need of medical care, he decided it was time.

Several UF faculty members in Gainesville and

RIGHT:
College of Medicine students are commissioned into the armed services after their graduation in 2008.

OPPOSITE PAGE:
Iraq veteran Capt. Jonathan Pruden works with physical therapist David Omura at the Malcom Randall Veterans Affairs Medical Center. Now a patient advocate at the VA and an outreach coordinator for the Wounded Warrior Project, Pruden was injured in 2003 after a roadside bomb exploded near his Humvee.

CONTINUED ON PAGE 14

Jacksonville have served since the wars in Afghanistan and Iraq began. Others, including Jacksonville doctor Eric Frykberg, M.D., have traveled to Germany to work at Landstuhl Regional Medical Center, a military hospital where many wounded soldiers are taken for surgery.

It was July and 134 degrees with a 30-mile-per-hour wind when Redfern first glimpsed the Middle East, stepping off the plane in Kuwait, where he and his unit stayed before heading to Iraq.

"It's not like being in another country, it's almost like being in another world," he remembers. "The main impression I had, it really makes you grateful for what you have in this country, the freedom, the safety, the fact that you can go to the market without worrying about a car blowing up next to you."

At the combat support hospital where he and fellow College of Medicine-Jacksonville orthopedic surgeon Col. Hudson Berrey, M.D., worked, there were days when they didn't do anything, and days when they spent hours tending patients.

At these hospitals, doctors treat patients suffering from typical conditions, such as appendicitis, and perform emergency operations, stabilizing soldiers so they can be flown to hospitals such as Landstuhl, says Berrey, a retired U.S. Army doctor and former chief of orthopedics at Walter Reed Army Medical Center who was recalled to active duty. They also care for Iraqi soldiers, although not as often now.

"One of the benefits for me is the Army has always been the cutting edge of trauma care," Redfern says. "I learned some things that are going to be applicable to patients we take care of here."

Throughout history, combat has sparked numerous medical innovations that save lives in battle and eventually help civilians, too. In this war, doctors are using new types of tourniquets and other technologies and have developed better techniques for fluid replacement and managing blood loss.

"Each time we have been in a military conflict there have been significant advances to come out of it," Berrey says.

BACK HERE

For some wounded soldiers, one of the most difficult parts of the journey begins after they leave the military. Transitioning to everyday life can be stressful, particularly for veterans struggling with disabilities and conditions such as post-traumatic stress disorder and traumatic brain injury, Pruden says.

Now living in Gainesville with his wife and daughter, Pruden spends a lot of his time talking with veterans as an outreach coordinator for the Wounded Warrior Project, a nonprofit veterans' service organization. It's a job he describes as part patient advocate, friend, lobbyist, mentor and counselor.

"Most of (veterans') physical needs are met, the medical care is great in the Department of Defense and VA," he says. "There's a huge population of people with TBI, PTSD and substance abuse problems. That's where the VA and DOD are going to probably spend and should spend most of their resources. The programs for substance abuse, homelessness and PTSD are woefully inadequate."

The need for more mental health services is not news to Bender, who, as chief of staff, oversees clinical operations at one of the largest veterans health systems in the country. Bender and Mark Gold, M.D., chair of UF's department of psychiatry and an addiction medicine expert, are in talks to get more psychiatry residents working with patients at the VA.

"It's a confluence of a major need in the state — there's a terrible shortage of psychiatric and addiction specialists — and having returning vets with so many substance abuse, depression and trauma problems," Gold says.

The VA is also adapting to the new generation of veterans, Bender says. Approximately 7,200 of the North Florida/South Georgia VA's 125,000 patients last year were veterans of Iraq and Afghanistan, a proportion that will increase as veterans age and require more medical attention. Because younger veterans have different needs, the VA is offering more evening hours and mental health clinics and is expanding electronic communications so patients have easier access to their records, he says.

Although VA medical centers like Malcom Randall are considered leaders in patient safety — barcodes match medications to patients and electronic medical records have been used there for 10 years — perhaps one of the most interesting aspects of the hospital occurs in labs scattered around its campus.

IN THE LAB

In the VA's Human Motor Performance Laboratory, Linda McDonald strolls at an even pace, smiling as her feet brush the moving treadmill and swinging her arms wide.

McDonald isn't a soldier. She broke her neck when she fell off a horse. But her participation in a trial of a type of therapy called locomotor training could

BELOW: Physical therapists Kristin Day and Sarah Suter monitor Linda McDonald (left photo) as she trains using a robotic type of locomotor therapy. College of Public Health and Health Professions researcher Andrea Behrman studies the therapy, which relies on an instinct in the spinal cord to learn patterns. The goal is to help patients with spinal cord injuries relearn how to walk.

UF nursing student Andrea Pe Benito cares for a patient at the Malcom Randall Veterans Affairs Medical Center.

RIGHT:

help future soldiers and civilians with spinal injuries relearn how to walk.

"About 75 percent of our VA-funded research focuses on some aspect of rehabilitation, and that includes basic science of the nervous system as it relates to rehab in spinal cord injury or traumatic brain injury," Hoffman says. "The spectrum of research in the VA is broad and multidisciplinary, from studying causes and disease pathogenesis through drug intervention and rehab intervention and then studying systems of health-care delivery. It allows for a great perspective on the issue of diseases and how you deal with them in the U.S. In some senses, it's a microcosm of world health."

Nearly all of the doctors at the VA medical center in Gainesville hold dual appointments with UF, and several researchers in the colleges of Medicine and Public Health and Health Professions do, too, Bender says. The center actually houses the second-largest rehabilitation research program in the country, Hoffman adds.

UF researchers have recently strengthened their focus on studying rehabilitation for wounded soldiers with the formation of the Florida Trauma Rehabilitation Center for Returning Military Personnel. The center's research includes everything from physical therapy researcher Andrea Behrman's studies of locomotor therapy to treat spinal cord injury to studies examining the use of robotics to improve hand function and exercises to relieve lower back pain.

"I think the big concept is quality of life," says William Mann, Ph.D., chair of occupational therapy in the College of Public Health and Health Professions. "In rehabilitation, we are looking for ways to help people improve their quality of life and have full participation."

Craig Velozo, Ph.D., UF's associate chair of occupational therapy and a VA researcher, is developing a computer-adapted test that could help doctors better assess patients for traumatic brain injury. All soldiers are now tested for traumatic brain injury after returning from service, but these tests often aren't applicable to everyday life, Velozo says.

As part of a National Institutes of Health-funded study, Velozo developed a computer-adaptive test — which presents questions based on previous answers — that in five questions can pinpoint what daily tasks people can handle according to their cognitive capabilities. The technique was presented to Congress as part of a report on the future of injury assessments.

"We have done this with more severe TBI; now we want to assess on people with mild TBI, the higher-end people," Velozo says.

✪ ✪ ✪

Pacing in front of a downtown Gainesville building after a long day of meetings, Pruden talks rapid-fire on his cell phone. It's a veteran he's been trying to help get a house. As he shifts from one leg to another, no one would know one of those legs is a prosthetic. No one can see the wounds on his other foot or even the tiny shards of shrapnel embedded in his skin.

Eventually he hopes he doesn't have to take calls like this. Not that he doesn't like it. He loves helping veterans, and he's good at it. He just longs for the day when there won't be a need for his job.

"We are already seeing fewer casualties in Iraq," he says wistfully. "But it seems like as we see fewer there, there are more coming from Afghanistan. But hopefully, there won't be a need for me to do this soon. That would make me very happy." P

THE BEST PATIENTS

Students find calling in UF-VA Nursing Academy

By Jessica Brandi

When Holly Williamsen started working at the Malcom Randall Veterans Affairs Medical Center in Gainesville, she never thought she would find her future with the VA. A patient on one of her first clinical rotations gave her a sense of how rewarding working with veterans could be.

"He didn't have a lot of family, and he was going in for heart surgery. I had a lot of opportunity to sit and talk with him," she says. "It was more than just giving him medicine … I actually made an effort and went in on my days off to see him."

She says closer interaction with patients is one of the greatest things about the VA Nursing Academy, a partnership between the UF College of Nursing and the U.S. Department of Veterans Affairs.

"When you're nursing you're busy," she says. "You have like seven patients at once. As a student, he was my one patient. I was waiting for him when he got out of surgery, and I helped wheel him back to his room."

Since combining forces in August 2007, the college and the VA have been working to improve patient care and give more students the chance at a quality nursing education. In one year, the academy, a five-year $40 million federal initiative, has increased enrollment in the UF College of Nursing by 41 students. It has also established a R.N. residency program, which grants students compensation while they continue working with their instructors for an additional year.

For students like Williamsen, exposure to the program and the opportunities the VA offers have given them a new direction.

Thomas Bedard, M.S.N., clinical simulations coordinator for the academy, has been with the project since its beginning. He says the partnership has introduced students to the best informatics program in the whole country along with a unique class of patients.

"Veterans are the most appreciative population you can work with," he says.

Kevin Siegel, a nursing student in UF's accelerated B.S.N. program, spent eight weeks at the VA hospital as part of his clinical rotation. He says he was hesitant at first, having no experience with the military or veterans, but was taken in by the welcoming and positive atmosphere.

"Everyone seems a lot more friendly, even the patients," he says. "They'd just want to tell us stories or show us card tricks and tell us about their families and different places they've been."

Before he was finished with his rotation, he applied for a student job at the hospital. He also plans to apply for the VA residency program.

"If I hadn't gone there for clinical, it might not have been anywhere I would have considered working, because I was unfamiliar with the environment and the patient population," he says.

Williamsen says she hopes to make the VA a lifelong career.

"It's really cool to know that before I even graduate it's what I'm going to be doing," she says. "All of the experience and skills I've learned … you can't make that up, having that one step ahead. You can't pass up an opportunity like this." P

RESEARCH

Alcohol tax increases deter drinking

By April Frawley Birdwell

ALEXANDER C. WAGENAAR, PH.D.

As leaders of many national, state and local governments debate whether to raise taxes on alcohol to boost revenues, their decisions also could influence how much their constituents imbibe in coming years, say UF researchers.

In a study published online in January in the journal *Addiction*, UF researchers report that the more alcohol costs, the less likely people are to drink it. And when they do drink, they drink less, a concrete association researchers documented after analyzing 112 studies spanning four decades.

"Results from over 100 separate studies reporting over 1,000 distinct statistical estimates are remarkably consistent and show without doubt that alcohol taxes and prices affect drinking," said Alexander C. Wagenaar, Ph.D., a professor of epidemiology and health policy research at the UF College of Medicine and the senior author of the study. "When prices go down, people drink more, and when prices go up, people drink less."

The consistency of this association between cost and consumption indicates that using taxes to raise prices on alcohol could be among the most effective deterrents to drinking that researchers have discovered, better than law enforcement, media campaigns or school programs, said Wagenaar.

The study, funded by the Robert Wood Johnson Foundation, also determined that tax or price increases affect the broad population of drinkers, including heavy drinkers as well as light drinkers, and teens as well as adults.

Many studies have analyzed how tax or price increases affect people's drinking habits, but the UF study is the first to examine all of these findings as a whole, using a statistical procedure called meta-analysis. This technique allows researchers to draw conclusions that are not limited to specific policy changes or a single state or country, said Wagenaar.

Researchers scoured through decades of studies examining links between price and alcohol use. The studies were all reported in English but not limited to any single country. The data resulting from these reports were compiled and analyzed to glean more precise answers than can be obtained from just one study, Wagenaar noted.

In a commentary in the same issue of *Addiction*, Frank Chaloupka, Ph.D., a professor of economics at the University of Illinois at Chicago, says "these findings provide a strong rationale for using increases in alcoholic beverage taxes to promote public health by reducing drinking." P

Life 101

Nobel Laureate probes minimum needed for cellular life

HAMILTON SMITH

By Czerne M. Reid

Figuring out the minimum set of genes needed to sustain life is a key mission of Nobel Laureate Hamilton Smith. He and a team of researchers at the J. Craig Venter Institute are working to find out that information and use it to construct the first synthetic cell in history.

"We're trying to learn what it takes to be a living cell," said Smith, who gave a lecture recently at UF's Cancer and Genetics Research Complex.

If he pulls off the feat of figuring out what minimal set of genes are essential for cellular life, his work is bound to be in Chapter 1 of biology textbooks. Not only that, it would enable the creation of new kinds of cells that can produce products such as biofuels or pharmaceuticals.

So far, Smith's team has chemically synthesized the entire genome of Mycoplasma genitalium, a bacterium that has the smallest known genome.

In addition, they also have done a DNA "transplant," extracting the naked DNA from another bacterium called M. micoides, and inserting it into a "recipient" cell of another called M. capricolum.

They "created" their first cell by stringing together bits of genetic material to make gene-size pieces, then combining those into subsections of a chromosome, then assembling those subsections into a new genome. Finally, the synthetic genome is inserted into a recipient cell.

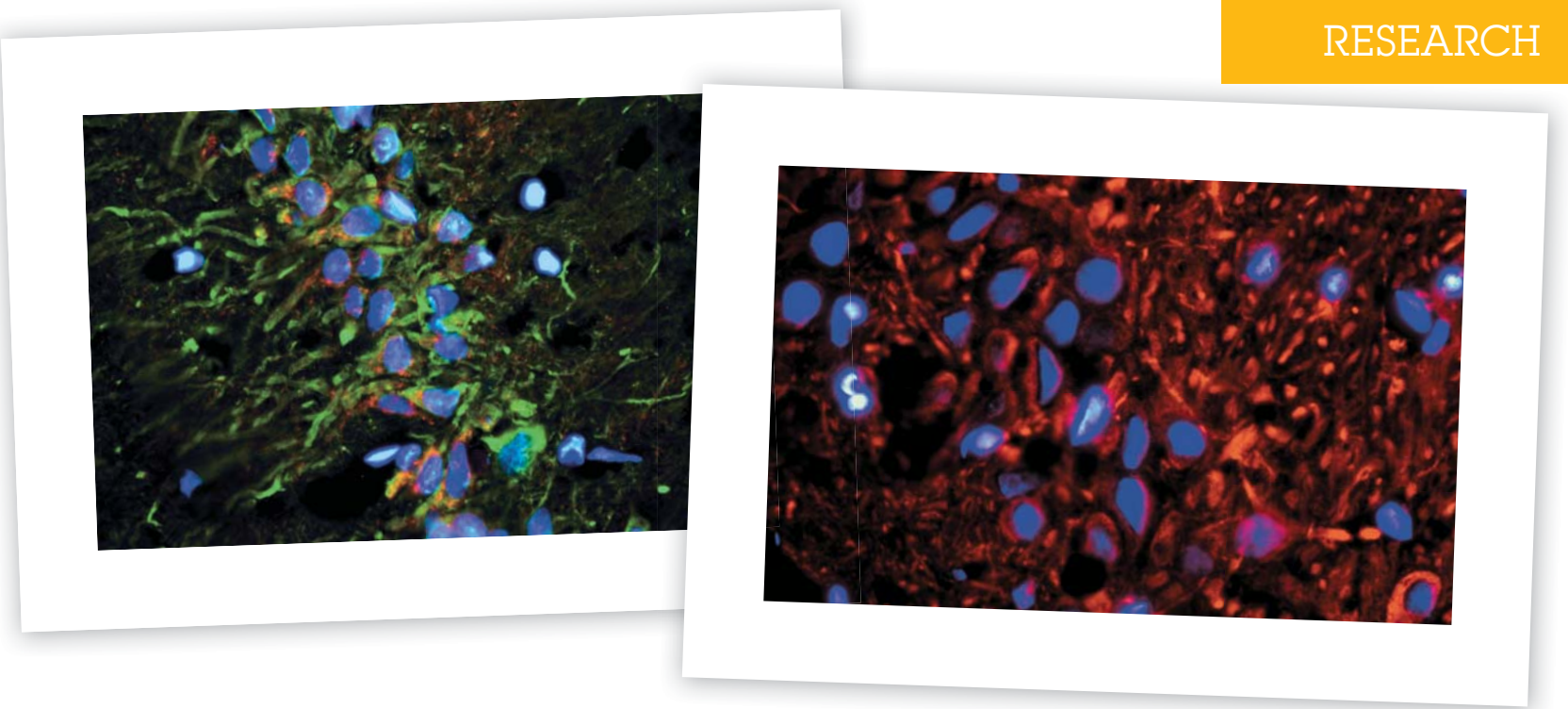
Smith says his team is close to successfully duplicating the transplant experiment, but using genetic material from M. genitalium, as they originally set out to do.

"He's always on the cutting edge of what is going on in biology," said Ken Berns, M.D., director of the UF Genetics Institute.

Smith won the Nobel Prize in Medicine 1978 for discovering so-called "restriction enzymes," which can target and cut DNA at specific sites, and for his work in developing recombinant technology, in which DNA sequences from varying sources are joined.

So in a way, Smith's quest to create a synthetic cell has taken him back to his roots in research.

Smith — who attended the P.K. Yonge Developmental Research School in the 1930s when his father was on the UF faculty — likens the inner workings of cells to computer technology: "The genome of a cell is the operating system, and the cytoplasm is the hardware," he said. "We're not smart enough yet to make the hardware, so we borrow that from a living cell." P



A matter of **life** and **death**

Cellular 'brakes' may slow memory process in aging brains

By John Pastor

UF researchers may have discovered why some brain cells necessary for healthy memory can survive old age or disease, while similar cells hardly a hairsbreadth away die.

The discovery, published online ahead of print in the *Nature* publication *Cell Death & Differentiation*, could help scientists understand and find solutions for age-related memory loss.

Scientists with UF's Evelyn F. and William L. McKnight Brain Institute describe how they analyzed two neighboring regions of a tiny brain structure called the hippocampus in rats of varying ages. They found that a recently discovered enzyme known as PHLPP, pronounced "flip," may be silencing a vital cell-survival protein in the region where neurons are most susceptible to damage and death.

"The question is why does one set of brain cells live and another set die when they are only millimeters apart in the same small brain structure?" said Travis C. Jackson, a graduate student working with Thomas C. Foster, Ph.D., the Evelyn F. McKnight chair for research on aging and memory at UF. "We looked at an important signaling pathway that tells cells to stay alive or die, and the enzymes that regulate that pathway. Implicated in all this is a new protein that before a couple of years ago no one actually knew much about."

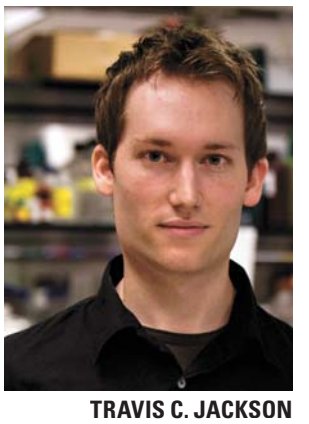
The scientists focused on the hippocampus, an anatomical region shaped something like a curved kidney bean in mammals. The structure is widely believed to be central to the formation of memories, as well as an important component of motivation and emotions. A portion of it is known to be especially vulnerable to decreased cerebral blood flow, which can occur because of stroke or circulatory problems. The same area is also one of the earliest brain regions to show pathology associated with Alzheimer's disease.

Researchers studied both regions for signs of AKT, a protein that when activated, actually hinders many naturally occurring inducers of cell death. They found activated AKT was scarce among the cells that are vulnerable to damage and death and more abundant within the hardier cells.

The next step was to figure out what was turning off AKT in the vulnerable cells, which led scientists to PHLPP1, a recently discovered enzyme that is believed to be a natural tumor suppressor. Where PHLPP1 levels were high — which corresponded to the area with the vulnerable cell population — AKT activation was far less robust.

"Possibly, we have found a target that could be manipulated with drugs so that these brain cells can be saved from threats," said Foster, a professor of neuroscience at the UF College of Medicine. "If one area of the hippocampus has a deficiency in cell-survival signaling, it is possible to find a way to ramp up the AKT protein. The caveat is there are studies that show over-activating AKT may not be good for memory — AKT may be naturally lower in this region for an important reason. But in times of intense damage, there may be a therapeutic window to upregulate AKT and get some benefit to health."

THOMAS C. FOSTER, PH.D.



TRAVIS C. JACKSON

PHLPP was discovered in 2005 by a team of researchers led by Alexandra Newton, Ph.D., a professor of pharmacology at the University of California, San Diego, who had set out to learn what was controlling AKT-driven cell growth, proliferation and survival. The investigation led them to PHLLP, which, in addition to being involved in healthy cellular processes, is known to propel tumor growth.

"Basically, PHLPP is important in controlling whether cells survive and proliferate or die," said Newton, who did not participate in the UF research. "If you want cells to survive brain disease, diabetes or heart disease, you want active AKT signaling and therefore low PHLPP. But if you want to stop cells that have the 'go' signal, like cancer cells, PHLPP can function as a brake. In this case, it appears as if there is an area in the hippocampus that is easily stressed and might undergo ischemia easily, because PHLPP is not allowing the AKT survival mechanism to work." P

On the *mend*

Surgical options vary for breast cancer patients

By Kandra Albury

The mass in Edith Stone's right breast was the size of a golf ball when it was discovered during a routine mammogram in 2000. After having the lump removed, Stone underwent 38 treatments of radiation.

But her battle with cancer wasn't over. In April, while doing a self-examination, she noticed two lumps in the same breast. Her mammogram confirmed her suspicions that the cancer had returned.

"I ended up having my entire right breast removed as the only option for saving my life," said Stone, a retired machine operator who lives in Jacksonville.

Stone's decision to undergo a mastectomy was one many women battling breast cancer must face each year. Last year, actress Christina Applegate made headlines for her decision to undergo a double mastectomy in hopes of keeping her breast cancer from returning.

For most women, the decision to undergo a mastectomy rather than a lumpectomy — Applegate had both — usually comes down to three reasons: the cancer has spread, patients will not or cannot undergo radiation or there isn't much breast to preserve, says Miren Schinco, M.D., an associate professor of surgery and chief of acute care surgery at the UF College of Medicine-Jacksonville.

In Stone's case, she could not have more radiation treatments. After her mastectomy, which Schinco performed July 10, she decided to have breast reconstruction surgery.

"If I hadn't made this decision, I probably would have gone into a bad depression from losing my breast," Stone added.

Some women grapple with depression, negative self-image and grief after a mastectomy.

Christopher Vashi, M.D., a UF assistant professor of plastic surgery, performed the reconstructive surgery Nov. 4. He said the surgery that Stone underwent is becoming more common.

The procedure involves inserting an expander under the large muscle in the chest wall to begin the skin-stretching process. Over six to eight weeks, the skin stretches and eventually allows room for a permanent implant. Once the skin has been stretched enough, the temporary expander is removed and an implant is put in.

PHOTO BY NELSON KEEFER

Patient Edith Stone meets with Dr. Christopher Vashi to discuss her breast reconstruction surgery. Stone, a breast cancer patient, underwent a mastectomy in July and opted to undergo breast reconstruction surgery afterward.

There are a number of advantages to this type of reconstructive surgery, including a shorter stay in the hospital, a shorter recovery time and less scarring. Having breast reconstruction also improves self-esteem and body image, Vashi said.

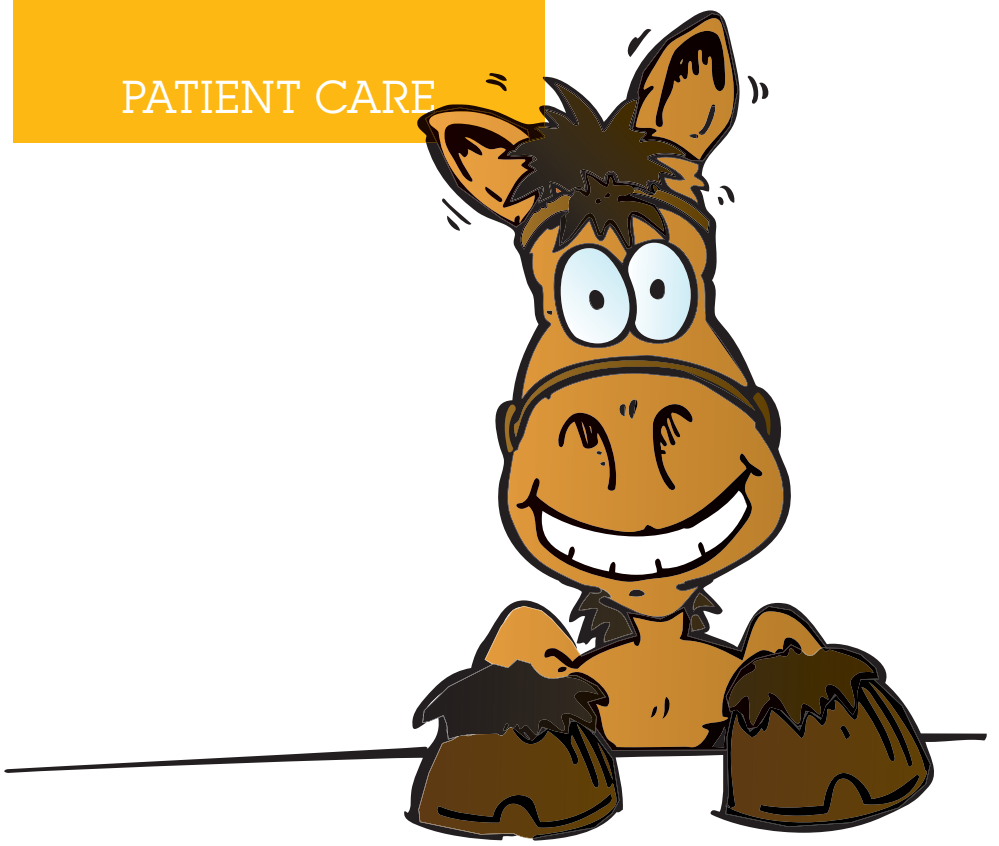
The procedure is less painful than another type of breast reconstruction called the TRAM flap, which involves removing a portion of skin, fat and muscle from the lower abdomen and using it to construct a new breast. A disadvantage of reconstructive surgery using silicone breast implants is the possibility that the implants may need to be replaced after 10 years. Other disadvantages include a prolonged skin-stretching process, risk of the implant or expander rupturing and the breast having a less natural shape.

"Women should be aware that the biggest complication with implant reconstruction is infection," Vashi said. "The good news is infection rates are less than 1 percent."

Reconstruction may not be for everyone and will depend on a number of factors, including the patient's health, the size of the breasts before surgery and whether there is enough excess body tissue to allow for skin stretching.

Stone said she believes the breast reconstruction surgery was a great option after having a mastectomy. She thinks it is important for women to educate themselves about breast cancer and to know all their options.

"I have two daughters," she said. "I'm the only one in my family who has been diagnosed with breast cancer. My two daughters are very leery now, but they both are getting their mammograms done."



Reproduction on *the go*

New mobile service helps horse owners manage breeding

By Sarah Carey

A mobile service for equine reproduction at UF aims to better serve area horse breeders while simultaneously exposing more veterinary medicine students to the field.

"The approach to medicine on the road is different than in the hospital, regardless of what service you are associated with," said Scott Bailey, D.V.M., a Kansas State University veterinary alumnus who recently completed his residency in theriogenology at UF's College of Veterinary Medicine.

Bailey, a board-certified reproduction specialist, spent 10 months at Hagyard Equine Medical Institute in Lexington, Ky., during his residency. He hopes to expand the ambulatory service in mid-February, at the start of Thoroughbred breeding season.

"I think our students will benefit greatly from seeing how routine breeding is handled in the field, as opposed to the more advanced kinds of cases they would typically see at the UF Veterinary Medical Center," Bailey said.

Because the UF VMC is primarily a referral center, a more typical horse reproduction case seen in the hospital might consist of a mare at high risk for losing a foal. Breeding management also is not typically as intense in the field as in the hospital, where most patients are sent to address fertility problems.

Although UF used to provide an ambulatory reproduction service, in recent years the time spent on such calls has dwindled and only two university-owned farms are presently served.

As a clinical instructor, Bailey says he has the interest and flexibility to make a mobile reproduction service work.

"I'm pretty excited about it," he said. "The No. 1 complaint we hear from students has been that there is a lack of real-world experience at the university — at any university. I think our students will benefit from obtaining a more varied view of how veterinary practice is conducted in the field."

No additional overhead costs were needed to begin the program. UF already owns the needed vehicles and medical equipment, Bailey said.

"What will happen is that students who are on their two-week theriogenology rotation will spend an entire week going out to private farms on the ambulatory service versus going to the UF-owned Horse Research Center only a few times," Bailey said.

He hopes to enlist a handful of farms with 15 to 20 mares that the service could visit regularly throughout the horse-breeding season, but says he won't limit the service if he received requests from farms with fewer horses.

Anyone seeking more information about the mobile equine reproduction program should call Scott Bailey at 352-392-2229. P

Stroke center RECERTIFIED

By Kandra Albury

The Shands Jacksonville Stroke Center received recertification as a primary stroke center from the Joint Commission in November.

The Joint Commission, an independent, nonprofit organization that reviews and accredits health-care organizations, has several disease-specific certification programs that oversee the quality of care in defined areas such as stroke. Shands Jacksonville is also certified as a Comprehensive Stroke Center by the Florida Agency for Health Care Administration.

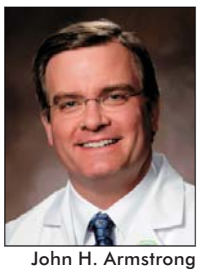
"The certification sends a message to our community that Shands Jacksonville is committed to providing effective specialized care to stroke patients," said Scott Silliman, M.D., an associate professor of neurology at the UF College of Medicine-Jacksonville. "Shands Jacksonville makes exceptional efforts to foster better outcomes for these patients."

Shands Jacksonville is one of only two comprehensive stroke centers in North Florida. While the Joint Commission's final report has not been received, Shands was notified verbally at the end of the review that there were no deficiencies or need for follow-up, indicating a successful review.

Shands Jacksonville currently treats 50 to 80 new stroke patients each month. With the help of TraumaOne Flight Services, Shands has expanded the coverage area of the stroke center to include rural areas surrounding Jacksonville. The program received positive comments on its community and EMS educational initiatives. P

COLLEGE OF MEDICINE

JOHN H. ARMSTRONG, M.D., an assistant professor of surgery, received the 2008 Special Recognition Award from the Surgical Caucus of the American Medical Association for displaying dedication and excellence while serving as chair of the caucus for the past three years. He was also appointed to the Health Policy Steering Committee of the American College of Surgeons and played a significant role in developing the ACS Health Policy Agenda for 2009. In addition, he was recently elected to the American Association for the Surgery of Trauma, which promotes research and education regarding burns, trauma and acute care surgery.


John H. Armstrong

Robert Winfield

Elizabeth Warner

Residents sweep awards

Two UF College of Medicine surgical residents recently swept a state trauma research competition with wins in both the basic and clinical science categories. The UF honors extended to the regional level in November with a win in the clinical science category at an American College of Surgeons' competition. **Robert Winfield**, M.D., a third-year clinical resident, won both the Florida State Committee on Trauma and the American College of Surgeons' Committee on Trauma Region IV resident competitions for his clinical research work in the area of trauma's impact on morbidly obese patients.

Winfield, who took two years out from his clinical residency training to focus on research, found that morbidly obese people involved in major trauma do not respond the same way to traditional resuscitative measures, such as intravenous fluids, as people of normal weight do, and that this differential response can be associated with the development of multiple organ failure. **Elizabeth Warner**, M.D., currently in her second year of research as part of her surgical residency training, found that neutrophils, a type of white blood cell that migrates to the lungs of patients with acute respiratory distress syndrome, have very different patterns of gene expression than neutrophils found in the same person's circulatory system. Both Winfield and Warner conducted their research in the UF department of surgery's Inflammation Biology and Surgical Science Laboratory, headed by Lyle L. Moldawer, Ph.D., the department's vice chair of research.

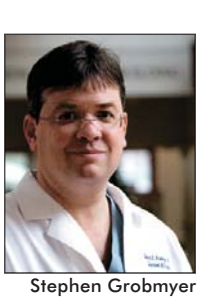
A team with heart

Four physicians from the UF Cardiac Imaging Team have achieved board certification in cardiovascular computed tomography by passing the first board certification exam for this specialty in September. These physicans (shown above from left) include: **David C. Wymer**, M.D., a clinical assistant professor of radiology; **James Hill**, M.D., a professor of cardiovascular medicine and director of the Heart Failure/Transplantation Section; **Roger Shifrin**, M.D., a clinical assistant professor of radiology; and **Steven Kraft**, M.D., a clinical assistant professor of cardiovascular medicine. Of the 878 examinees, 715 physicians passed to achieve Diplomate status. Recent advancements in the quality and detail of cardiac imaging have fostered greater collaboration between cardiologists and radiologists in reading cardiac CT scans. The UF Cardiac Imaging Team has been working together reading scans for more than three years and has trained more than 80 physicians in cardiac CT through its continuing medical education program.

C. RICHARD CONTI, M.D., a professor of medicine and an adjunct professor of physiology, received the college's International Educator of the Year Award. Conti has been involved in education, service and research throughout Europe, Asia, Africa, Australia, South America and the Soviet Union. He is a member of 10 professional societies outside the United States and has been an invited lecturer for several international cardiac societies. During his tenure as president of the American College of Cardiology from 1989-90, he helped to establish a relationship with the European Society of Cardiology by creating reciprocal international symposia, which persist today and have led to invaluable sharing of scientific information and international research opportunities.

C. Richard Conti

STEPHEN GROBMYER, M.D., an assistant professor of surgery, has been elected into the Southern Surgical Association. A surgical oncologist, Grobmyer was one of 26 surgeons elected into the association during its annual meeting held in December in West Palm Beach. The second oldest surgical society in the nation, the Southern Surgical Association focuses on furthering the study and practice of surgery, especially among the profession in the Southern states.


Stephen Grobmyer

JACKSONVILLE

ERIC CONDE, M.S.A., assistant dean for administrative affairs, has been selected to serve as state director for the American Academy of Medical Administrators. Conde is a fellow of the American Academy of Medical Administrators and also serves as a member of the organization's advancement committee. The American Academy of Medical Administrators' mission is to advance excellence in health-care leadership.

Eric Conde

KAKARLA CHALAM, M.D., Ph.D., the assistant dean for veterans affairs affiliations and chair of the department of ophthalmology, was recognized along with his team of nine faculty physicians and staff by the Diabetic Retinopathy Clinical Research Network in October. Chalam's department received the organization's Site of the Month Award. The organization supports the identification, design and implementation of multicenter clinical research initiatives focused on diabetes-induced retinal disorders.

Kakarla Chalam

DANIEL KANTOR, M.D., an assistant professor of neurology, has been named president-elect of the Florida Society of Neurology. Kantor will serve a two-year appointment starting Sept. 11, followed by a second two-year term as president. The organization's mission is to advance the art and science of neurology and promote the best possible care for patients with neurological disorders.

Daniel Kantor

COLLEGE OF DENTISTRY

EDWARD CHAN, Ph.D., a professor of oral biology, received a one-year grant of $88,500 from the National Institute of Environmental Health Sciences, a part of the National Institutes of Health, to fund a pilot study on autoantibody determinations and their xenobiotic associations. The study aims to determine the frequency and specificity of autoantibodies among healthy individuals and correlate them with exposure to environmental xenobiotics.

Edward Chan

ROGER FILLINGIM, Ph.D., a professor of community dentistry and behavioral science, will receive the 2009 Wilbert E. Fordyce Clinical Investigator Award from the American Pain Society

She's No. 1

Donna Stilwell received the 2008 Employee of the Year award at the College of Public Health and Health Professions' 50th anniversary celebration dinner Nov. 21. Stilwell, the office manager for the department of health services research, management and policy, joined the department during a time of significant change, including staff transition, budget cuts and growth in the department's research, teaching and service activities, according to those who nominated her. Despite these challenges, Stilwell's efforts allowed the department to operate smoothly. "Donna established organizing principles and ways of working that made all of our lives easier and our 'outcomes' better," one nominator explained. Stilwell was also recognized for her superior attitude and pleasant demeanor. According to one of her colleagues, Stilwell's "positive attitude and behavior help to maintain an atmosphere of respect and productivity in our office."

Faculty to remember …

CONSTANTE B. DE PADUA, M.D., a founding member of the UF College of Medicine's department of anesthesiology, died Dec. 23 after a long illness. de Padua joined UF in 1967 as an instructor in anesthesiology after teaching at the University of Illinois in Chicago. He went on to serve as an assistant professor of anesthesiology before becoming an associate professor in 1974. He also was the clinical director of anesthesia services for the Shands Operating Room for many years, and a staff anesthesiologist at the Malcom Randall Veterans Affairs Medical Center."Dr. de Padua was truly one of those individuals who could handle anything that came his way," wrote department Chair Kayser Enneking and Michael E. Mahla, a professor of anesthesiology and neurosurgery, in an e-mail to departmental faculty. "From airway management to complex clinical problems, Connie quietly and simply handled the problem. Many a resident marveled at how he could remain calm and collected in the most difficult of clinical situations. He was one of those individuals who could always be counted on to pitch in and help no matter who asked him or what was needed."

ROBERT LEON WILLIAMS, M.D., a former chair of psychiatry in UF's College of Medicine from 1964 to 1974, passed away Nov. 16. He was 86. Along with other UF researchers, Williams developed an internationally recognized sleep program at UF that became a model for translational research. His program evaluated patients from all over the world and provided important findings to medical associations for decades. Williams discovered many of the sleep abnormalities associated with depression, common medical conditions and drugs and alcohol, and authored hundreds of peer-reviewed papers. After leaving UF, Williams served as chair of psychiatry at Baylor College of Medicine. He was also president of the American College of Psychiatrists and president of the American Association of Chairmen of Departments of Psychiatry. He is survived by his wife, daughter, 11 grandchildren and six great-grandchildren.

at its annual meeting in May. The award recognizes individual excellence and achievements in clinical pain scholarship and is presented to a pain professional whose total career research achievements have contributed significantly to clinical practice.

Roger Fillingim

THEOFILOS KOUTOUZIS, D.D.S., M.S., an assistant professor of periodontics, recently received an American Academy of Implant Dentistry Research Foundation Award to complete his research project "Comparative Soft and Hard Tissue Responses to Titanium and Polymer Healing Abutments."

Theofilos Koutouzis

PUBLIC HEALTH AND HEALTH PROFESSIONS

ELISA GONZALEZ-ROTHI, P.T., D.P.T., and **VIRGINIA LITTLE,** P.T., M.S., N.C.S., both rehabilitation science doctoral students, are among six national recipients of Florence P. Kendall Doctoral Scholarships from the Foundation for Physical Therapy board of trustees. The $5,000 scholarships are awarded to outstanding physical therapists who are starting their first year of graduate studies.

Elisa Gonzalez-Rothi

Virginia Little

College of Medicine appoints new leaders

Michael Clare-Salzler

MICHAEL CLARE-SALZLER, M.D., the Stetson chair in experimental pathology and a professor of internal medicine, endocrinology and general surgery, was recently named interim chair of the department of pathology, immunology and laboratory medicine. An expert on type 1 diabetes, Salzler is the director of UF's Center for Immunology and Transplantation.

Tetsuo Ashizawa

TETSUO ASHIZAWA, M.D., chair of the department of neurology at the University of Texas Medical Branch at Galveston, has been named chair of UF's department of neurology. Ashizawa's appointment begins in April. "Ashizawa is a superlative clinician and administrator with a distinguished research program," said College of Medicine Interim Dean Michael L. Good, M.D. "He will lead the neurology department to new heights in its missions to conduct world-class research, provide excellent patient care and prepare students and residents for the clinical and academic challenges of tomorrow."

R. Stan Williams

R. STAN WILLIAMS, M.D., the Harry Prystowsky professor of reproductive medicine, has been named chair of the department of obstetrics and gynecology. Williams has served as interim chair of the department since July 2007. "Dr. Williams has a unique and ambitious vision for the department and plans to expand the faculty in the areas of oncology, maternal-fetal medicine, robotics and urogynecology, as well as increase collaborations throughout the College of Medicine," said College of Medicine Interim Dean Michael L. Good, M.D.

Golden Gators

PHHP celebrates 50 years

PHOTO BY KRISTEN BARTLETT GRACE

PHOTO BY SARAH KIEWEL

PHOTO BY KRISTEN BARTLETT GRACE

PHOTO BY KRISTEN BARTLETT GRACE

PHOTO BY KRISTEN BARTLETT GRACE

In November, the College of Public Health and Health Professions celebrated its 50th anniversary. Former and present faculty, staff and students came together to honor the gold milestone with a weekend of festivities, capped off by a gala banquet. This month, The POST brings you an inside look at that celebration: (From left) 1. Former medical technology department chair Mary Britt, left, shared a laugh with retired faculty member Janet Rodeheaver. The medical technology program closed in 1992. 2. At the college's 50th anniversary lecture, Dr. Alan Jette discussed the future of disability in America. Jette, a professor of health policy and management at Boston University and director of the university's Health and Disability Research Institute, received the college's Darrel J. Mase Leadership Award. 3. Donna Rodriguez Goldstein, right, a 1972 graduate of the college's physical therapy program, catches up with Martha Wroe, who served on the physical therapy faculty from 1959 until her retirement in 1987. 4. At the gala, Dean Emeritus Richard Gutekunst spoke about the contributions of the college's founding dean, Darrel Mase, whom Gutekunst described as "a true visionary." 5. The celebration dinner brought together all of the college's living deans. From left are Howard Suzuki, Richard Gutekunst, Robert Frank and Michael Perri, current interim dean.

PHOTO BY SARAH KIEWEL

Going the *distance*

How one UF professor's program helped make the Gator Nation global

By Anne Myers

When Ian Tebbett, Ph.D., started UF's online forensic science program eight years ago, it had only 20 students. Now, it's the largest online graduate forensic science program in the world, with 450 students from 28 different countries.

Tebbett, the program's creator and director, became interested in forensic science as a pharmacy student at London University in the late 1970s. He worked at Scotland Yard during the summers, and he found the relationships between pharmacy and forensic science, such as drug abuse, very interesting. After graduating, he spent only a year in the hospital's pharmacy before he turned completely to forensic science. He came to the United States more than 20 years ago and has been at UF for the past 16 years.

While working as director of the UF College of Veterinary Medicine's State Racing Laboratory, which conducts drug tests for Florida's horse- and dog-racing industries, Tebbett noticed a growing interest in forensic science among his staff. In response to their requests, he began posting material online so they could learn more. The rest, as they say, is history.

With increased interest from other students seeking to further their education, Tebbett's online forensic science program quickly evolved into four separate areas of concentration: toxicology, forensic serology and DNA, drug chemistry and general forensic science. Today, most of the program's students are working professionals who are looking to improve their qualifications. Many have families and mortgages and can't afford to leave their jobs to go back to school. The online program solves that problem.

The flexibility of the online program also allows students to take the courses no matter whether they are in the United States. Currently, there are 20 to 30 students enrolled who are stationed in Iraq.

"It's amazing that they are able to complete their studies over there," Tebbett said. "If those students can take a course while in a war zone, then anyone in the world can do it."

In some parts of the world, it is politically difficult to attend school in another country. The forensic science online program allows these people to attend an American school from within their country's borders.

"Being able to reach so many people on a worldwide basis has been really rewarding," Tebbett added.

The program has earned UF both national and international recognition and generates a significant revenue, which is helpful during tough financial times. The UF forensic science program has also established partnerships with academic institutions in the United Kingdom, Australia and South America.

Through these international connections, the program also has aided in the identification of victims of the Kosovo and Peruvian massacres through DNA matching.

For his efforts, Tebbett, who also serves as the College of Pharmacy's associate dean for distance education recently received an International Educator of the Year award from the UF International Center for internationalizing the campus and curriculum. The award recognizes Tebbett's international endeavors through his online program. Tebbett also helps others to develop online programs and is very involved with the distance education program at UF.

"The program puts people in touch with others all over the world," Tebbett said. "It's really making a difference." P

SEE YA!

PHOTO BY SARAH KIEWEL

PHOTO BY SARAH KIEWEL

Bernard Okech, a research assistant scientist in the College of Public Health and Health Professions and a researcher at the Whitney Laboratory for Marine Bioscience, is developing insecticides to kill mosquitoes when they are in the larval stage, before they mature and become malaria carriers. Okech studies mosquito larvae's nutrition and how it affects a certain molecule that must be present for the development of Plasmodium, the parasite that causes malaria.

PHOTO BY SARAH KIEWEL

Interpreti Veneziani, the Venice-based chamber group, performed for patients at the bone marrow transplant unit and neonatal intensive care unit at Shands at UF Jan. 26 as part of the AIM Together program, a partnership between UF Performing Arts and Shands Arts in Medicine.

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