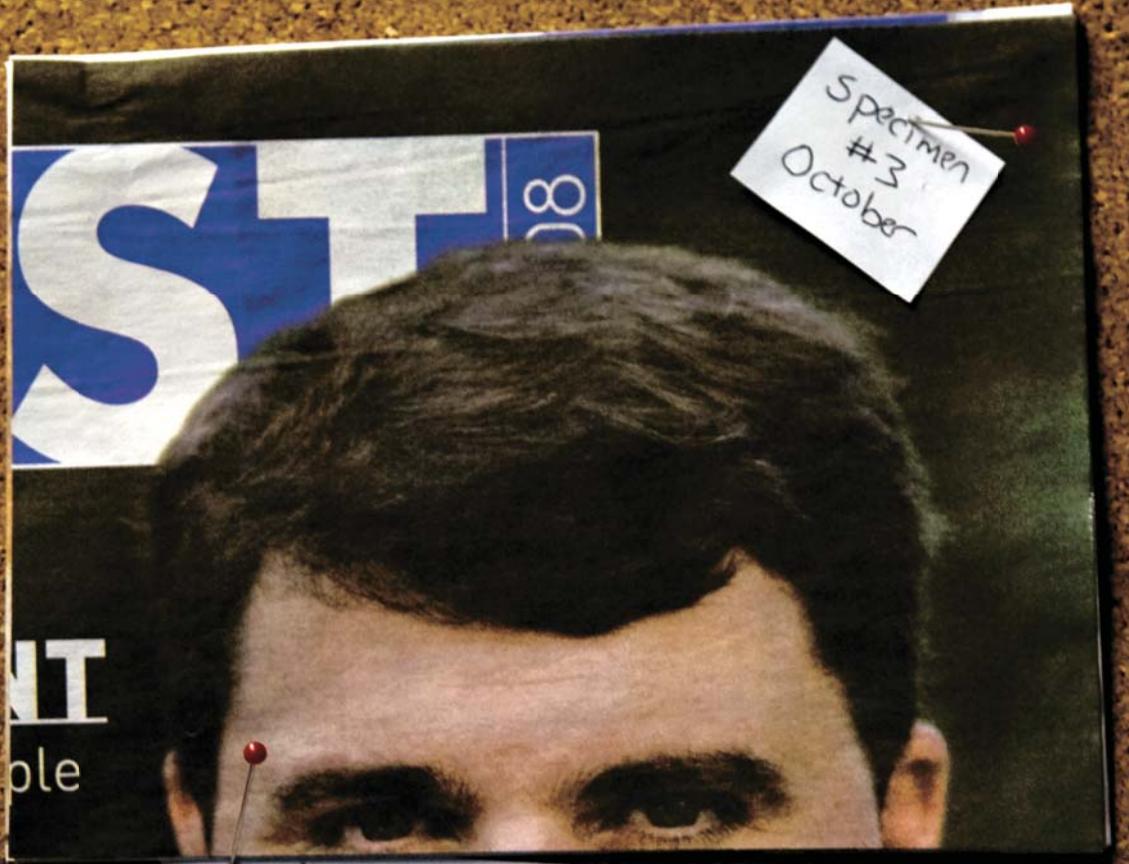
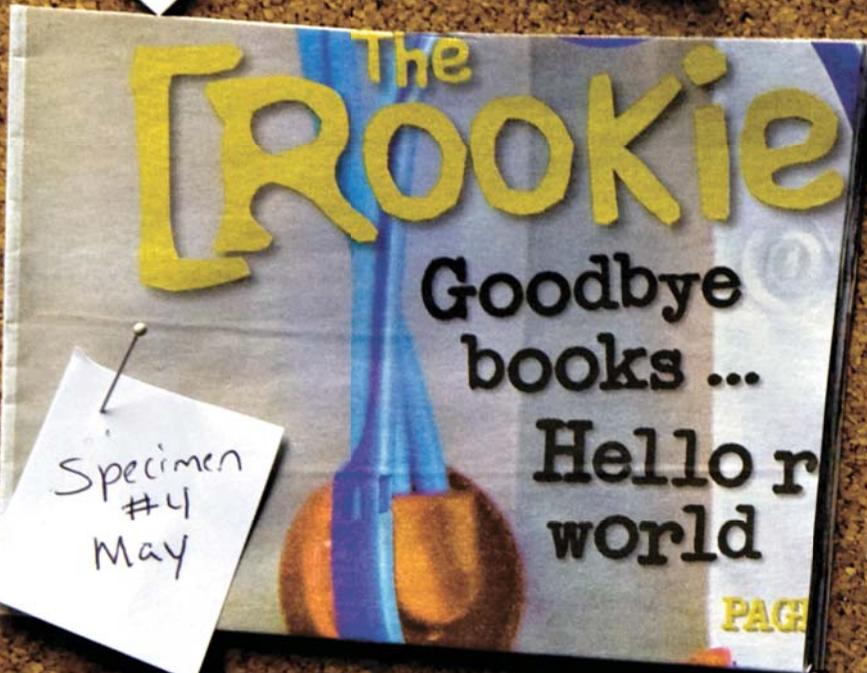


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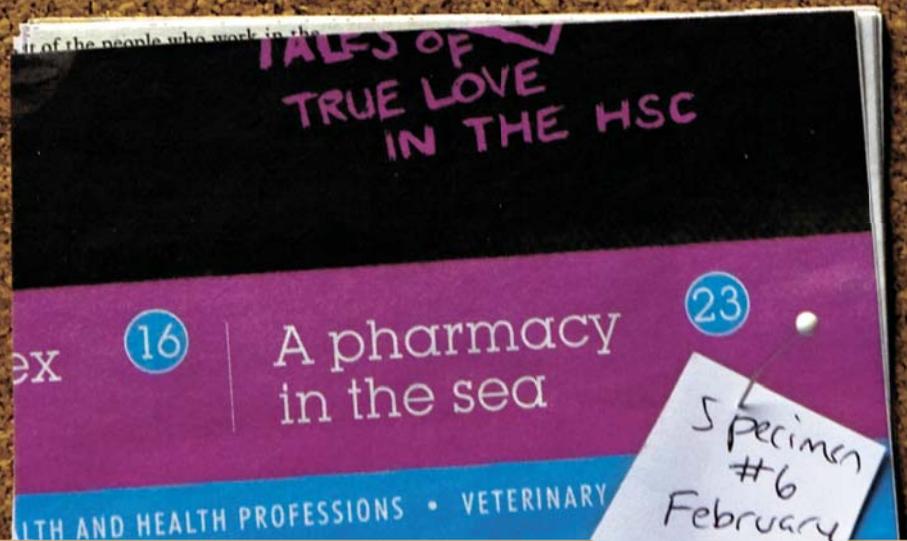


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typical student

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On the Cover

As 2008 comes to a close, the POST takes a look back at the year in research to tell you the stories behind the science.
Photo by Sarah Kiewel.



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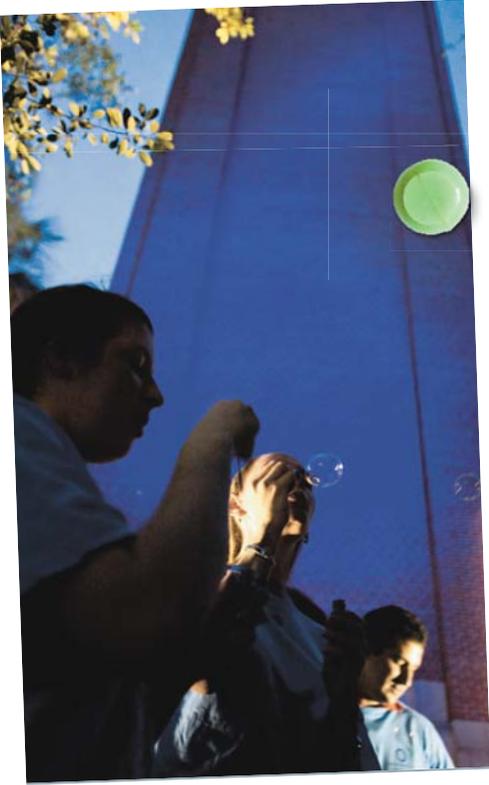
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Digging FOR NEW digs

Friends of the UF College of Veterinary Medicine joined administrators, faculty, alumni and students on the UF campus Nov. 21 to celebrate a red-letter day in the life of the college: a groundbreaking ceremony for its new \$58 million small animal hospital. The new Veterinary Research and Education Center, which will include the new small animal hospital, will consist of 98,000 square feet of working and office space and is expected to be completed in late 2010. Caty Love, a veterinary student and the sophomore class president, said her class would be the first to experience some part of their clinical education in the new building. “A more impressive hospital makes for more and better veterinarians, and that is the ultimate goal,” Love said. Pictured from left are UF Provost Joe Glover; college Dean Glen Hoffsis; hospital manager Sheri Holloway; UF Vice President for Research and Graduate Studies Win Phillips; state Sen. Steve Oelrich; sophomore veterinary student Love; UF’s Senior Vice President for Agricultural Affairs Jimmy Cheek; UF’s Senior Vice President For Health Affairs Doug Barrett; former UF College of Veterinary Medicine Dean Joe DiPietro; and small animal clinical sciences department Chair Colin Burrows.



Post it

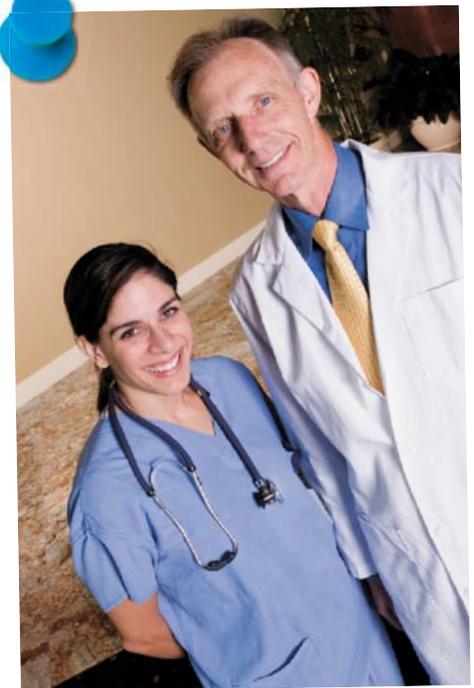


GATORS GO BLUE

The Albert and Alberta statues in the Emerson Alumni Hall courtyard took on a different hue Nov. 14 when the beloved mascots were lit in blue — without a bit of orange in sight. It was all part of World Diabetes Day, which is celebrated each year by lighting iconic landmarks around the world blue. This year, with the help of the UF College of Medicine and UF Diabetes Center of Excellence, UF became the first campus in the nation to shine blue and raise awareness about diabetes and prevention of the disease. More than 500 people were screened for diabetes in the Shands at UF Atrium and at the Reitz Union Colonnade. Photo by Sarah Kiewel

BALD IS BEAUTIFUL

A group of dentistry faculty, staff and students are working together to raise \$50,000 for the American Cancer Society's Annual Relay for Life on March 27. And they're putting their money where their follicles are, so to speak. Fourteen of these folks have volunteered to shave their own heads when certain fundraising goals are met. Two D.M.D. students, Cassandra Dorsey and Telka Jackson, are leading the effort, and yes, their tresses are on the chopping block. What can you do to help? (Don't worry. You don't have to shave your head.) You can join the college's team and walk or run during the relay event, or just help raise money. They welcome all faculty, staff and students who want to contribute to the cause. For more information, see www.dental.ufl.edu/news.



WANTED: NICE PEOPLE

Know someone who deserves a little recognition for how they treat others? Be it the thoughtful doc who always treats his patients and co-workers with respect or the caring nursing student who spends hours helping others, UF's Chapman Society want to know. Members of The Chapman Society, an honor society for humanism in medicine, would like to give a little special recognition to HSC faculty, staff and students who distinguish themselves in how they treat their patients, peers and co-workers. The students plan to recognize these folks online, through displays around the HSC and in future issues of the POST. To suggest someone deserving, e-mail Lindsay Malloch at lmalloch@ufl.edu.



MERRY WITH A MISSION

This December, send holiday cheer to friends and family and benefit hospitalized children at the same time. The Shands Arts in Medicine Program is selling holiday cards made by kids at Shands at UF. All proceeds will go directly to bringing art, music and dance to pediatric patients all year long. The cards will be on sale until Christmas and cost \$10.63 for 10 cards. For more information and to purchase holiday cards, call the Shands Arts in Medicine Program at 265-0151 or visit Room 1217 near the Shands cafeteria.



PHOTO BY SARAH KEWEL

Visiting professor teaches tai chi at lunch

By Tracy Brown Wright

With hands outstretched, they stepped forward. Left leg. Then right leg, each movement as fluid and graceful as a tiger stalking prey.

It was lunch time, and the five women had gathered on a patch of grass behind the Health Professions/Nursing/Pharmacy Complex for what has become a Tuesday ritual since June. That's when College of Nursing visiting professor and tai chi master Rhayun Song began teaching an eight-week tai chi class there.

"People expressed an interest in learning tai chi, but it's not easy for them to go somewhere," said Song, a Korean professor whose year as a UF visiting professor ends in December. "It's not even easy for them to take one hour to exercise. They're always so busy."

So Song established an eight-week course at the most convenient time and in the most convenient place she could find — at lunch

behind the building. The course, which drew about 15 participants, was so popular that Song and five or six regular attendees kept the class going.

Under the guidance of Song, the class learned about the art of tai chi, which helps people reduce stress and improve balance and flexibility through gentle movements.

Song has been working with tai chi and researching the medical benefits of the exercise since 2000. Her recent research includes a 12-week study with elderly women suffering from arthritis. The women experienced less pain and better balance after doing tai chi for 12 weeks.

She came to UF after talking with UF

College of Nursing professor Beverly Roberts, who also studies the health effects of tai chi. Roberts, who was on Song's dissertation committee at Case Western Reserve University, asked Song visit UF to work on a study with her. Here, Song is working with Roberts and studying the effects of tai chi on different populations.

But once here, she discovered that UF faculty and staff members would benefit from her alternative method of exercise, too.

Tai chi has a low impact on joints because it involves bending at the knees and moving the body in various formations, Song said.

"It doesn't give you the first part of pain, like when you're jogging you always have to endure some muscle pain, first," Song said. "It's not going to hurt your joints or muscles, but it makes you stand on one leg longer than walking. (With that) it can give you balance, help muscle strength and help bone muscle density." 

Moving on

Family medicine residency clinic manager retiring after 34 years

By April Frawley Birdwell

The building that housed UF's family medicine residency clinic when it first opened in 1974 was torn down years ago. Sitting in her office where pictures of grandchildren are tacked on cabinets, Diane Hazen recalls the shock of leaving that squat, four-exam-room clinic in 1976 for the clinic's current space on the corner of Southwest Fourth Avenue and Southwest Sixth Street.

"We were like, 'Wow, look at all the space we have. We'll never be able to use all this space,'" says Hazen, manager for Family Medicine at Fourth Avenue, UF's family medicine residency clinic. "We have outgrown it. We do not have 1 inch of space now."

Hazen can recall every baby step of the clinic's 34-year life because she has worked there since it opened, first as a clinical supervisor and X-ray technician and then as clinic manager for the past 10 years. She has known every family medicine resident to train at UF and remembers when the clinic's current medical director, Karen Hall, M.D., did her residency there. She has known some of the clinic's patients since they were babies, and has seen the clinic add services such as sports medicine, psychology and pharmacy.

But her reign as clinic manager and de facto historian ends this month. After 34 years at the clinic, Hazen is retiring.

"I love this place," she says, her hands clasped in her lap. "I love the people here. It makes me sad. It will be very hard to leave. Through the years we have all been through a lot. We do feel like we're family. We have watched each other's kids grow up. I think those are the things that set us apart as a clinic."

Hazen, who moved to Gainesville with her family when she was 18, trained to become an X-ray and EKG technician after working as a secretary in a clinic. It was while working as a technician that she met UF cardiologist Russell Green, M.D.

When Green was appointed director of the new family medicine residency clinic, he asked Hazen if she'd like to join him there, she says. They started out with four residents, each year adding a few more. Now, there are 24 residents in the three-year program, she says.

"I am biased, but I do think family medicine residents are the best," she says with a smile. "They are the most down-to-earth, caring people."

Hazen's job changed in 1999 when the clinic joined UF's faculty group practice, a change that overhauled the way the



PHOTO BY SARAH MEYER

Diane Hazen, left, is retiring after spending 34 years at UF's family medicine residency clinic, Family Medicine at Fourth Avenue.

clinic had operated for its first two decades. During the transition, Hazen was selected to manage the clinic.

"My job in that transition was 100 percent easier because Diane was there to carry that load," Hall said. "From the exterior nothing really changed in terms of our mission, how we delivered care, and that's a credit to her. We increased efficiency remarkably. We were looking at numbers from 10 years ago, and we see 75 percent more patients than we did back then."

"Diane handles all the clinic management. She takes that on her shoulders. That's the gift I have been given in Diane ... She has left big shoes to fill."

There have been a few not-so-welcome changes during Hazen's years at the clinic, too. Fewer medical students are choosing family medicine now. Hazen suspects increasing demands such as the amount of time family medicine doctors now spend on paperwork instead of with patients are playing a role in this change.

Regardless, the clinic continues to meet high patient-care standards, receiving top honors from UF's faculty group practice for patient satisfaction, a distinction that makes Hazen proud.

Although she is retiring and moving to Wakulla County, where she will be closer to her grandchildren, Hazen says she plans to visit the clinic often. She's really interested to find out how electronic medical records will work at the clinic. The transition to EMRs is scheduled to occur next year.

"I told them you won't really be rid of me because my family lives here," Hazen says. "I will come back a lot." 

How Delilah (and Bear) got better

UF vets use interventional therapy to treat liver disorder in dogs

By Sarah Carey

When Delilah, a 6-month-old Labrador retriever, came to the UF Veterinary Medical Center in July, she was smaller than normal for her breed, and her liver had almost completely stopped working.

“From the beginning, we noticed that she was very sick,” said Delilah’s owner, Robin Fish. “She’d snap back for a while but never played like the other puppies, and she was very listless. Soon after their second shots, she became extremely ill, with severe fevers.”



Bear, a chocolate Labrador retriever who was treated at UF through the use of interventional therapy, is shown at home in his yard in Dunedin with his companion, Sammi. Bear received the treatment after his owner met the owner of another dog, Delilah (not pictured), another Labrador retriever who was treated with interventional therapy.

Delilah was diagnosed with a congenital intrahepatic portosystemic liver shunt, a life-threatening condition in which blood bypasses the liver, leading to organ failure. Because surgery to treat these cases is difficult and often not an option, as it was with Delilah, UF veterinarians used a technique called interventional therapy to redirect blood flow through its normal channels.

Today, Delilah is one of two canine patients successfully treated at UF for this condition through the use of interventional therapy, which uses diagnostic imaging to guide minimally invasive procedures. In fact, Fish was so excited by Delilah’s outcome at UF that she mentioned it to another couple she met at a social function whose dog Bear suffered from the same condition.

That dog soon became UF’s second success story for this particular type of treatment.

Although interventional therapy has been used for years in human medicine, its use in veterinary medicine is in its infancy, with only one formal training program in existence at the University of Pennsylvania. University of Pennsylvania veterinary

specialist Chick Weiss trained UF cardiologists in these techniques three years ago, and Delilah’s case gave the team its first opportunity to use these new skills.

UF’s VMC implemented a team approach in which several specialty services are involved in the planning and execution of many interventional therapies.

“This approach has only improved the care of our patients and our ability to offer cutting-edge treatment,” said Herb Maisenbacher, a UF veterinary cardiologist. “It’s a realm with a lot of promise and very few limitations. There are many organ system diseases that can be treated by these procedures.”

The procedure involves placing a wide-bore catheter in the jugular vein, using real-time X-rays to locate the shunt, and then using tubes and coils to correct the flow of blood.

Interventional therapies generally include shorter hospital stays and reduced mortality rates, but most importantly, these techniques offer treatments for conditions that have no treatment or where surgery is too risky. But the procedures can cost thousands of dollars.

“The metal stent alone costs \$1,500,” Maisenbacher said. “The good thing is we can take a dog that is very sick and turn it into a healthy dog.”

Veterinary radiologist Shannon Holmes said that interventional radiology also is used at UF to treat conditions such as vascular anomalies and urethral obstructions and to deliver chemotherapy.

As for Delilah, Fish said she is “doing beautifully.”

“I told the doctors at UF, I didn’t know what to do for them or how to thank them, so I just sent them another liver shunt dog so they could save another life,” Fish said. “I was blessed enough to be able to give them another dog to help.” **P**

Chance meeting saves dog’s life

By Sarah Carey

The grapevine is alive and well as the Tampa-area owners of two young chocolate Labrador retrievers can attest. The dogs both are doing well after recently receiving unique interventional therapy at UF’s Veterinary Medical Center to correct a life-threatening liver condition.

Robin Fish and Shiloh Schrantz met at a mutual friend’s birthday party in July and began chatting. Turns out, both women owned puppies that were extremely ill from the same medical condition, an intrahepatic portosystemic liver shunt, which basically means that the dogs’ blood wasn’t being filtered by the liver.

“We were at a jazz and blues club where there was live music and it was hard to hear because of all the noise,” said Schrantz, whose dog is named Bear. “All of a sudden my husband said, ‘Listen to these people; their puppy has issues like ours.’”

“So I went over and said, ‘I don’t mean to be snooping, but it sounds like your dog might have exactly the same problem that ours has,’” Schrantz said.

Fish explained that her dog Delilah was awaiting a procedure at UF known as interventional therapy to treat the condition.

“We were so surprised to hear all the good things they said, so we called the university and one thing led to another,” Schrantz said.

Bear now weighs 83 pounds and is “doing great,” Schrantz said. **P**

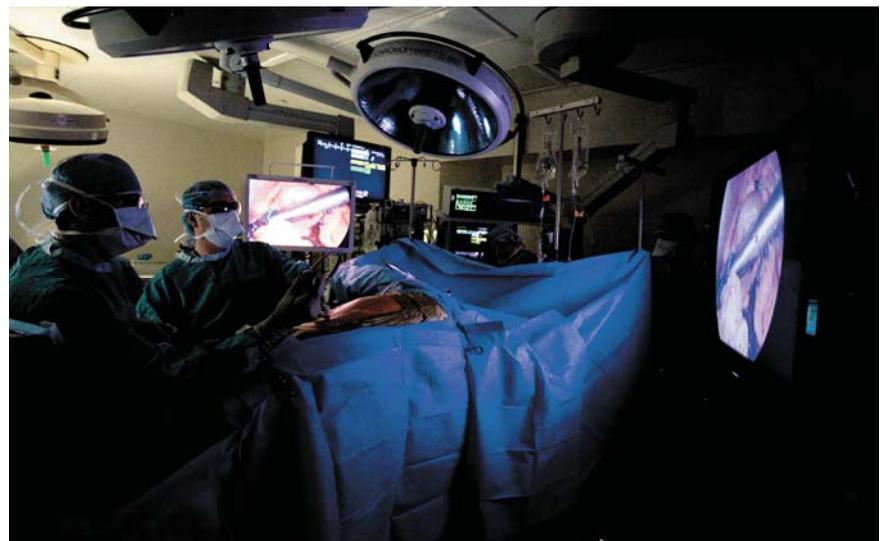
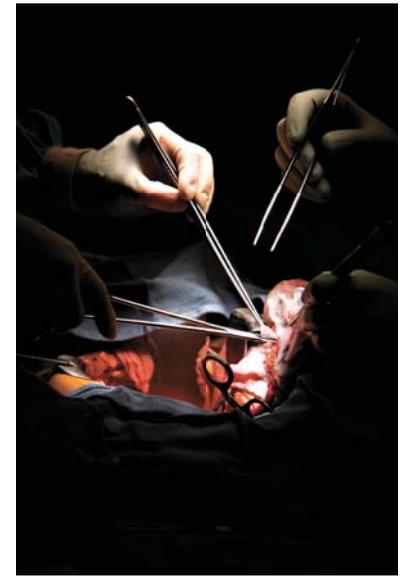
Season of giving

UF surgeon removes living donor kidney through navel

Story by Jennifer Brindise **Photos** by Sarah Kiewel

With more than 74,000 Americans awaiting a kidney transplant, John Grove of Ohio recently gave his cousin a most generous gift: his kidney.

On Oct. 28 at Shands at UF, Grove's kidney was transplanted into Barbara Doran of Ocala. While living donor kidneys are usually taken laparoscopically, the procedure used in this case was even less invasive.



For the first time at Shands at UF, a UF transplant surgeon, Joseph Magliocca, M.D., removed a kidney via the navel. The method uses only one to two port openings (small incisions created during laparoscopic surgery) and a navel incision, eliminating the need for two additional port incisions and a lower abdominal cut typically used in the standard laparoscopic method.

“Our ultimate goal is to eliminate the barriers to live kidney donation that some people may perceive,” said Magliocca, an assistant professor of surgery. “This procedure makes the final result more cosmetically appealing and may motivate some patients to donate. With the number of patients on the kidney transplant waiting list growing far more rapidly than the number of deceased donors, every live kidney donor can make an impact on the lives of many people.”

Magliocca added that while this is still a major operation and the technique may not be appropriate for all patients, it could encourage some potential donors to move forward and donate a kidney to a loved one.

To see more images of this surgery and hear more about Barbara Doran and John Grove's story, visit www.news.health.ufl.edu to view a photo slideshow. For more information about being a live kidney donor visit www.shands.org. 



UF surgeons removed patient John Grove's kidney through his navel Oct. 28, a method less invasive than even laparoscopic surgery. Grove donated his kidney to his cousin Barbara Doran.

The prodigy

High school student's research could lead to better tumor treatment

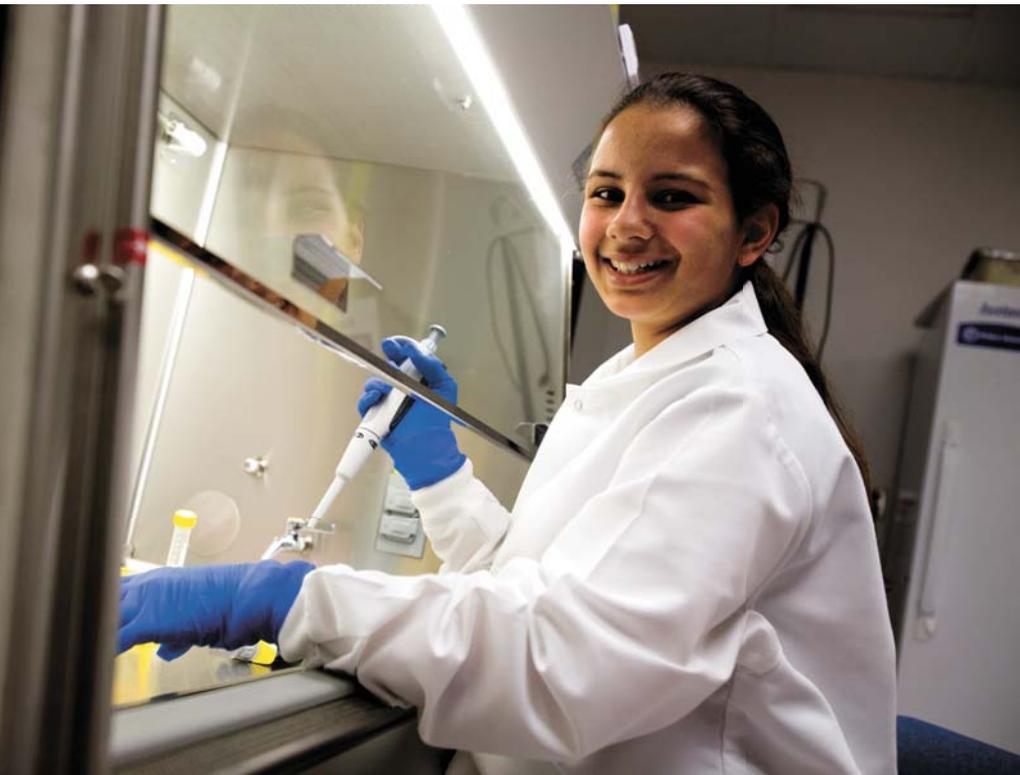


PHOTO BY SARAH KIEWEL

Muna Oli, 16, is conducting research in UF neuroscientist Brent Reynolds' lab. Her research pairs nanotechnology with cancer cells and could help pave a way to better tumor treatments.

By April Frawley Birdwell

The bulky white lab coat is at least two sizes too big, but Muna Oli pulls it on anyway, rolling up the sleeves until she can see her hands again. After slipping on blue gloves, she opens the lab's fridge, where the cells she is studying are stored in tiny bottles.

Opening a bottle, her nose wrinkles slightly. The cells are contaminated, but it's OK, she says. She has more, and it won't affect her project. Since June, Oli has been studying what happens when gold nanorods are injected into tumor cells and then shot with an infrared laser. On the basis of the research literature she has read, she thinks the method may be able to kill tumor cells without damaging surrounding healthy tissue.

"It will almost explode in a way, but it explodes at a much lower temperature than radiation," said Oli, who splits time between labs at the College of Medicine and College of Engineering. "Hypothetically,

you could use gold nanorods, put them in a tumor, shoot it with a laser, and it heats up just enough to explode the nanorod, but it doesn't damage surrounding tissue. It's much less invasive."

But the research has to be done first. That's why Oli spends most days working in the lab, although she doesn't have as much time as other researchers. After all, Oli, 16, can't get to the lab until her school day is over at Eastside High School.

Oli, a sophomore at Eastside, grew up around labs. Her father is UF ecologist Madan Oli, and her mother is a microbiologist. Oli's own career in science started with the sixth-grade science fair, when she performed "a simple experiment" to test the toxicity of metals in items found in most houses, such as speakers and CDs.

"A lot of them were toxic," she said. "You put them in the landfill and then the acidic rain leaches them out and it finds its way into the water systems and stuff."

Afterward, she began approaching UF scientists for advice and permission to work in their labs, starting with Gabriel Bitton, whose test she had used for her first science fair project. By 16, Oli has already logged in dozens of hours working in the labs of some of UF's most esteemed scientists, including neuroscientist Brent Reynolds, Ph.D., who directs UF Adult Stem Cell Engineering and Therapeutic Core. For her current project, she spends half her time working with cells in Reynolds' lab and the other half making gold nanorods in engineering professor Kevin Powers' lab.

"I kind of half-jokingly tell people, when I tell them about the about the project, that she is the smartest person in my lab," Reynolds said. "She's one of those kids who just gets it. I didn't come looking for her. She came looking for me. She came with a project. With very little modification, it has been designed and carried out exclusively by her."

Oli began studying nanotechnology as part of her project for the science fair last year. She studied silver nanoparticles and their effect on the environment, testing them E. coli, water fleas and other microscopic forms of life.

"The thing about nanotechnology is there are several different kinds of materials — nanorods, nanoparticles, nanotubes — and different elements and different applications," Oli said. "One I got started in nanotechnology, I was really interested in it."

And this year's experiment may lead to more than blue ribbons and trophies. Reynolds said he thinks Oli's research could lead to a promising approach for treating glioblastoma, the type of tumor Oli has been studying. Glioblastoma is one of the most common cancers in adults, and there is currently no effective way to treat it, Reynolds said.

"It's incredibly exciting because it has the potential to be a new therapeutic, and this is coming from a child in grade 10," Reynolds said. "The drive and focus she has to get involved in basic research and see these projects to fruition, it requires a lot of vision. It's not an instant gratification. There are a lot of kids in their 20s that realize they don't have that quality."

For now, Oli is focused on finishing her work and hopes her project does well enough to make it to the international science fair, her goal this year. And as for the future?

"I want to go to UF, but I'm not sure," she said. "As of right now, I want to do a combined M.D./Ph.D., which is hard I know, but it sounds fun." **P**

UF medical students honored the people who chose to donate their bodies to medical education during a ceremony Dec. 1.

“Bringing Life to the Dead” to express his thoughts about dissecting and his deepest respect for those who donated their bodies.

“This semester, I spent many days studying dissected human bodies and many nights contemplating the nature of death,” Qureshi said. “As future physicians, death is something we will have to face more often than other professionals.”

After Troy Pashuck and Christopher Matthews presented faculty members a thank-you card for the time they invested in the gross anatomy class, the lights dimmed and each person lit a candle. The students and faculty walked reverently to the anatomy laboratory on the ground floor of the Communicore Building, where many students reflected on their time in gross anatomy and discussed their appreciation for the individuals who will forever leave a mark not only in their future practice but also on their lives.

“It was wonderful and meaningful to gather as a class in the lab much as we did on day one, and to hear everyone’s thoughts and prayers, and finally lay all those bodies to rest after their last duties as our educators,” said Lola Xie. “I think the ceremony was a great way to bring things full circle and to remind us of the humanity aspect of this privileged profession into which we are entering.”

The end of gross anatomy is a milestone in the lives of first-year students, but it also marks just the beginning of the educational rapport they’ve built with the 22 professors and mentors who shepherded them through the course.

“We really do have the best faculty,” Pashuck said. “They’re an amazing team.”

According to Kyle Rarey, Ph.D., interim senior associate dean for educational affairs, members of the class of 2012 understand they have been given a gift, and the night of the Anatomy Commemorative Ceremony demonstrated just that.

“They demonstrated by this ceremony why they are so special,” Rarey said. “It was one of the best ceremonies done by students at the College of Medicine.” **P**

A final goodbye

Medical students honor body donors

By Priscilla Santos

Three months after picking up scalpels for the first time to begin dissecting human cadavers, first-year medical students at the College of Medicine said their final goodbyes to those who donated the ultimate gift a person can give to further medical education.

The class of 2012 Anatomy Commemorative Ceremony was held Dec. 1 in the HPNP Complex auditorium to honor the individuals whose bodies were used during the college’s human anatomy course. The solemn celebration included musical performances, poetry readings and expressions of gratitude by the students.

Jennifer Rodney sang “Time to Say Goodbye,” and Mohammad Qureshi shared a Ghazal — a unique style of poetry common in Central Asia — titled

When plants go **ROGUE**

Climate change opens new avenue for spread of invasive plants

By John Pastor

Plants that range northward because of climate change may be better at defending themselves against local enemies than native plants. So concludes a team of scientists including a UF geneticist. The team’s findings, reported in today’s online edition of *Nature*, suggest that certain plants could become invasive if they spread to places that were previously too cold for them.

“This paper is the first to suggest that the mechanisms that aid invasive species when they move from one continent to the next may actually work within continents when climate change gradually extends the distributional range of a species,” said Koen J.F. Verhoeven, an evolutionary biologist at The Netherlands Institute of Ecology. “Plants may be able to outrun, so to speak, their enemies from the southern range.”

Often, exotic plants and animals are introduced to new continents or geographic regions by travelers and commerce. Separation from their natural enemies can drive their invasive success in the new range. But, increasingly, the distribution of many species is shifting because of climate change and changes in land use.

The researchers compared exotic plant species that had recently established in Millingerwaard, a nature preserve in The Netherlands, with related native plant species from the same area.

“We set out to see whether the native and exotics responded differently to natural enemies such as herbivores or microorganisms in the soil,” said Lauren McIntyre, Ph.D., an associate professor of molecular genetics and microbiology in UF’s College of Medicine and a member of the UF Genetics Institute. “UF helped develop a statistical model that took into account the experimental design and had good power to detect the effects of herbivory.”

The growth of native plants was reduced far more than the growth of exotic species, indicating natives were more vulnerable to natural soil-borne microbes.

In addition, all plant species were exposed to North African locusts and a widespread species of aphid. These herbivores were not expected to show a preference for either the native or the exotic species. But they preferred the native plants and left the exotic ones relatively alone. **P**

Phoning it in

Study shows
phone counseling
can reinforce
weight loss



By Jill Pease

Telephone counseling may be just as successful as face-to-face counseling in helping people maintain weight loss, report UF researchers.

The UF study is the first to demonstrate the effectiveness of telephone counseling for long-term management of obesity in rural communities. The findings appeared in the Nov. 24 issue of *Archives of Internal Medicine*.

In the study of women in underserved rural areas, those who received phone or face-to-face counseling after an initial weight-loss program did a better job of keeping the weight off than those in a control group.

“We found that the participants who received extended care were able to maintain their weight loss at higher levels than those participants who only received printed health education materials as a follow-up,” said lead investigator Michael G. Perri, Ph.D., a professor and interim dean of the College of Public Health and Health Professions. “The success of telephone counseling gives us a cost-effective alternative to face-to-face visits that is more convenient for rural residents who may need to travel long distances for care.”

Study participants included 234 women who were obese, were between 50 and 75, and lived in rural communities in northern Florida. After completing a six-month weight-loss program, women in the study lost an average of 22 pounds. One year later, participants who received phone or face-to-face counseling after treatment had regained less weight — on average, 2.5 pounds — than those in the education control group, who regained an average of 8 pounds.

Long-term care is an important component in weight-loss maintenance, said Perri, who has argued for the acceptance of obesity as a chronic condition that requires continuous care. Previous studies have shown that in the year after treatment, participants regain one-third to one-half of the weight lost.

During the first phase of the UF study, the women participated in

a weight-loss program that combined a low-calorie diet with daily 30-minute walks and an emphasis on learning problem-solving skills to overcome barriers to weight loss. The women met in weekly group sessions in six rural counties.

“We also addressed special issues of concern for women in rural areas, such as low-calorie preparation of traditional ‘Southern’ dishes, strategies for coping with a lack of family support for weight loss and techniques for healthful eating away from home,” said Perri, a professor of clinical and health psychology.

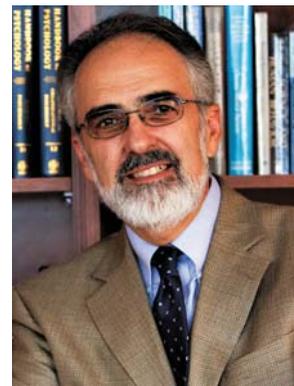
After the weight-loss portion of the study, participants were randomly assigned to one of three 12-month follow-up programs to help them keep the weight off: face-to-face group counseling, phone counseling or a comparison group that received written educational materials. Participants were encouraged to use weight-control strategies and asked to log food intake on at least two weekdays and one weekend day per week.

Adherence to the behavioral weight control program, as measured by the food intake records, was significantly higher in the phone and in-person groups.

“The completion of written self-monitoring records was the single best behavioral predictor of weight change,” Perri said.

Although phone and in-person counseling were equally effective in helping participants maintain weight loss, program expenses per participant for phone counseling were half the cost of face-to-face counseling — \$397 on average for in-person counseling versus \$192 for those in the phone group. Phone counseling also offers other benefits for people in rural areas, researchers say.

“Because distance represents a major barrier to medical care in rural areas, the availability of a treatment modality that does not require time and costs for travel and attendance at clinic visits represents a potentially important approach to providing ongoing care to rural residents,” Perri said. **P**



MICHAEL G. PERRI, PH.D.

Understanding autism

JENNIFER ANN
HARRISON ELDER,
PH.D., R.N.

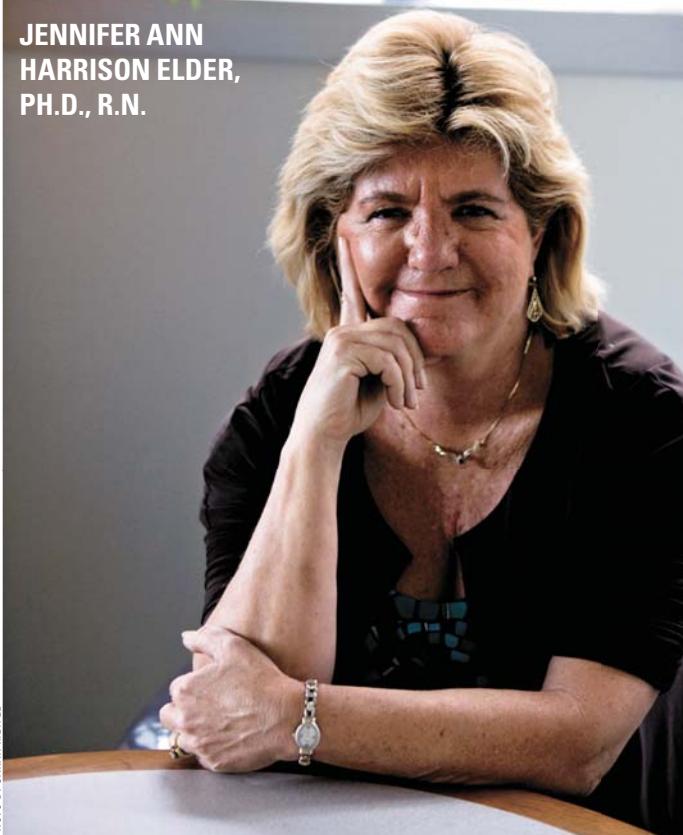


PHOTO BY SARAH KEWEL

By Tracy Brown Wright

About one in 150 children are diagnosed with autism each year, according to the Centers for Disease Control and Prevention. This staggering number leaves many parents wondering and worrying about this mysterious disorder and the effect it could have on their child.

Jennifer Ann Harrison Elder, Ph.D., R.N., a professor and chair in the UF College of Nursing department of health care environments and systems, has studied autism and related child neuropsychiatric disorders for the past 27 years. Much of her work examines methods of educating families, enhancing family cohesion and reducing caregiver stress. She also evaluated the effects of a gluten-free, casein-free diet on children with autism, one of the first double-blind clinical trials of this diet. Needless to say, she's an expert. In this month's POST, Elder answers our questions about autism.

What is autism?

Autism occurs on a spectrum and to date has no clearly defined cause or cure. Individuals who have this disorder appear to not process the world in the same way as non-affected individuals. To be diagnosed with autism, the individual must present features related to three areas: delayed speech and language, deficits in social relatedness, and unusual repetitive behaviors and/or restricted interests. The severity of autism varies greatly, from individuals with little speech and poor daily living skills to others who function well in most settings.

When and how is autism diagnosed?

Currently, autism is difficult to conclusively diagnose before 18 months of age. Health-care providers may detect symptoms during infancy, although a formal diagnosis is generally not made until the child fails to develop functional language by age 2. There are several standard testing instruments that are available to diagnose children by age 3. Language delay or lack of appropriate social development may cause parents or teachers to seek an evaluation. Some children may have a period of normal development before the onset of symptoms and may even lose some earlier acquired skills, such as early words or social smiling. Currently, there is no blood test or other medical test available to diagnose autism. Correct diagnosis depends on extensive and accurate developmental history, as well as observations of the child's social, communicative and play behaviors.

What are the causes of autism?

Genetic factors are considered to be some of the most recognized causes of autism. There are also theories pointing to possible environmental triggers that may include diet, allergic reaction, virus or high fever. Many parents do believe there is a link between vaccinations and autism although, to date, no scientific study has borne this out. The Centers for Disease Control and Prevention currently states there is no clear link between the measles/mumps/rubella vaccine (widely reported by parents to be a cause) and multiple forms of autism.

What would be your recommendation to parents who do not wish to vaccinate their children for fear of autism?

I recommend that parents vaccinate their children. The risk and effects of illnesses that may strike a child not protected against them far outweigh any other consideration. However, I believe parents should discuss their concerns with their health-care provider and discuss a vaccination schedule that is right for them. There are delayed vaccination schedules that still protect children against harmful diseases while allowing for more time between vaccinations and the ability to split certain combined vaccinations.

What are the treatments for autism?

There are a variety of treatments available to autistic children. In our research, we have focused on parent-training intervention because we believe well-informed parents can be the best therapists, and the children are more likely to respond to their parents when they incorporate training strategies into their daily lives. Our research has shown that early intervention with autistic children can have a major influence on how the child develops and functions later in life. There are many other types of treatments available, including the wheat-free, dairy-free diet in which many parents have taken interest. We conducted the first published double-blind clinical trial of this diet in autism. We could find no significant differences in symptoms between the children receiving the diet and those not receiving the diet. However, anecdotally, parents of seven children reported improvements in language and decreased hyperactivity and tantrums. We plan to conduct a future study examining the effects of the diet over longer periods of time with more subjects. **P**



Dissecting 2008

The stories behind the science

Oh, 2008. How we will miss thee. You brought us a historic and entertaining presidential election, a record-breaking Olympics and, of course, the near collapse of the economy (we'll try not to hold that one against you). It was a good year for science too. UF researchers began testing gene therapy to treat blindness in humans and reported numerous findings that someday could help patients battle cancer, obesity and other diseases. The POST brought you these headlines each month, but what about what we didn't tell you, the stories behind the science? For every research discovery, there's a story of how it happened or what's happened since then. So, as 2008 ends, we bring you a few of the tales we found in labs across the HSC this year.

After two years of experiments, tests, frustration, revised experiments and more tests, UF researchers were finally decoding the worm-to-worm signals the microscopic nematode *Caenorhabditis elegans* sends its potential suitors. That's when UF biochemist Art Edison, Ph.D., read an abstract and realized his lab may have been scooped.

Written by Frank Schroeder, Ph.D., a Cornell University researcher whom Edison had invited to speak at UF, the research abstract detailed a chemical structure strikingly similar to the one Edison and his researchers had recently identified. But Edison's lab was trying to find the first mating pheromone in the tiny worm — one of the most simple multicellular organisms and a model research subject — while Schroeder's lab was looking for what's known as Dauer pheromones, chemical signals that control the worm population, not expand it.

Research on a roller- coaster

While Schroeder was in town for the talk, Edison asked him to review his lab's most recent nuclear magnetic resonance spectroscopy results, data that detailed, atom by atom, the chemicals in the fraction of the worm they were studying. Looking at the results, called a spectrum, Schroeder spotted it, C6, the Dauer pheromone he had discovered. It was very similar to the chemical UF researchers had identified as a mating pheromone.

"I was on a roller-coaster at that point," Edison says. "We had been working on this for two years and either we had been scooped, or C6 did a lot more than Frank had known before."

Working in collaboration with Paul Sternberg, Ph.D., a scientist at the California Institute of Technology whose research sparked Edison's interest in the mating pheromone, the researchers learned they had identified the same chemical — the only difference in chemistry was a sugar attached to UF's molecule, Edison says. And it did, in fact, have two distinct purposes, working basically as a population monitor. It opens the door for mating when the pheromone signal is very low, and if the signal gets too strong, it shuts the worms' system down, sending them into hibernation mode.

"It's like a bell-shaped curve," says Edison, who along with his collaborators reported the findings in *Nature* in July. "It only works within a certain range. A lot of pheromones act like that.

"This is something I'm going to be thinking about for years. It does make sense that the same molecules have dual purposes. The other caveat is we're certain the story is more complicated. There are more signals we haven't identified."

So why all the fuss to understand how worms communicate? Researchers have learned almost everything there is to know about cells, human or animal, by first discovering it in a nematode or a fruit fly, Edison says. Because nematodes are actually the most common animal on the planet, understanding *C. elegans* could help scientists combat worms that threaten human health, too.

And, as any researcher will say, *C. elegans* is easy to study.

"You can grow large amounts of *C. elegans* in a culture mixed with bacteria," Edison says. "It sounds disgusting, but it's not. They're actually very pretty worms." — April Frawley Birdwell



Specimen: The microscopic model worm *Caenorhabditis elegans* lives in this modest, one-room Petri dish.

Specimen: A patient undergoes the same procedure used during gene therapy.



Vision in sight?

Surprisingly, they could see better in the dark. Each of the first three patients who volunteered to test the safety of an experimental gene-transfer technique to treat blindness said their vision had improved, but a portion of that improvement was not readily evident.

The UF and University of Pennsylvania scientists conducting the phase 1 clinical research study here in Gainesville were startled to learn that after treatment the volunteers could see best when they woke up in the morning.

“When someone walks into a dark movie theater from the sunlight, it takes a few moments for their eyes to adjust. This process is termed ‘dark adaptation.’ But for some people, dark adaptation takes much longer, if it occurs at all,” says William Hauswirth, Ph.D., an eminent scholar, professor of ophthalmology and member of UF’s Powell Gene Therapy Center. “When our patients told us they could see better after they had been in the dark for hours, it became clear that some of their restored visual function was hidden by a defect in their rate of dark adaptation.”

The volunteers have a type of hereditary blindness called Leber congenital amaurosis type 2, a condition where photoreceptor cells cannot respond to light because a gene called RPE65 does not properly produce a protein necessary for healthy vision.

Each received a subretinal injection to replace the

nonfunctioning gene in small, selected regions of the retina. And the therapy is working.

The results, reported in September in the *Proceedings of the National Academy of Sciences*, are the first to show that gene therapy can improve both day and night vision in patients with LCA. Restoration was localized to the area of treatment. While day vision improved as much as 1,000-fold, night vision improved as much as 63,000-fold.

But the restored night vision of the volunteers took as much as eight hours to adjust to darkness compared with about 20 minutes in normal eyes.

“This is not a bad thing, because what we’ve given them is some vision in daylight and lots of vision after dark, and we’ve only treated a very small portion of the retina,” Hauswirth says.

Since the first three patients were treated, two additional ones have received the therapy. The sixth is expected to be treated in January.

“So far, so good,” Hauswirth says. “The results are already spectacular. We have one more patient to go in this round. We’ll then watch for any side effects and if everything continues to be OK, we’ll decide whether or not to move forward in children. LCA2 is considered a childhood form of blindness, and patients are usually functionally blind before age 10. We think the younger the patient, the more vision they can potentially gain back.” — *John Pastor*

role of ALK mutations
versions of neuroblast

Specimen: Audiologist Alice Holmes
(middle) helps a patient fine-tune
her cochlear implant.



No money, no problem

After Linda Bartoshuk, Ph.D., and her students discovered an unexpected correlation in their research database, she was delighted, in a sense, when the National Institutes of Health gave her only the nominal amount of \$50,000 to further her research.

Although \$50,000 was a mere fraction of what she would have needed to gather more data for her study, all was not lost. Instead, the NIH pointed her in another, less costly but just as effective direction.

The NIH requires researchers to allow access to databases created with NIH grant monies. So the NIH put Bartoshuk in touch with researchers at several U.S. academic institutions that had databases with the same types of general health information she was collecting. The other groups mined their databases, some of which cost millions to create. The results showed the same correlation that Bartoshuk's team had seen in their database — a connection between childhood ear infections and adult obesity.

Bartoshuk, a professor in the UF College of Dentistry who studies taste and smell, had discovered that ear infections damage taste, which alters eating habits and can lead to obesity.

“In a time of budget constraints, it was delightful to create a collaborative effort between institutions that weren't vying for control or money, just interested in furthering knowledge,” Bartoshuk says. — *Karen Rhodenizer*



A sound idea

It all began when Lee Krause started asking his audiologist, Alice Holmes, Ph.D., questions.

Krause, a computer engineer from Melbourne, Fla., was frustrated with the fine-tuning process after he received a cochlear implant at Shands at UF in 2002.

“I realized during the tuning process that I was never going to achieve my objective of being able to better understand speech,” Krause says. “I knew there had to be a better way.”

After cochlear implant surgery, audiologists “fit” the patient's cochlear implant processor by manipulating implant settings, a process that often takes multiple clinic visits and many months to complete. Several million combinations of device parameters make it impossible to evaluate a patient's performance for every possible combination.

“Lee came in to me one day while we were doing programming and said ‘This doesn't make sense. Why are you having me listen to beeps when I want to listen to speech? Why don't you test me doing speech and we can program it that way?’” recalls Holmes, a professor in the College of Public Health and Health Professions' department of communicative disorders. “I told him there were some problems with that and I gave him a couple of chapters to read thinking that that was probably going to answer his questions. And he came back the next week and said ‘No I really think we can do this.’”

Krause and Holmes, along with Rahul Shrivastav, Ph.D., an associate professor in UF's College of Liberal Arts and Sciences, and Purvis Bedenbaugh, a former UF professor, set out to develop a better system for cochlear



Specimen: After receiving a cochlear
implant, Lee Krause (left) collaborated
with UF researchers to improve the
tuning process.



implant tuning. The resulting software program, known as Clarujust, quickly analyzes the patient's speech comprehension to determine the best cochlear implant settings for a particular patient. In a pilot study, the researchers found that the new program resulted in improved performance in all outcome measures, including speech perception and the ability to hear over background noise.

The new software program has the potential to improve the quality of life for thousands of cochlear implant recipients, Holmes says. “This is the most exciting research project I've been involved with in my career,” she says. — *Jill Pease*

Photos By Sarah Kiewel

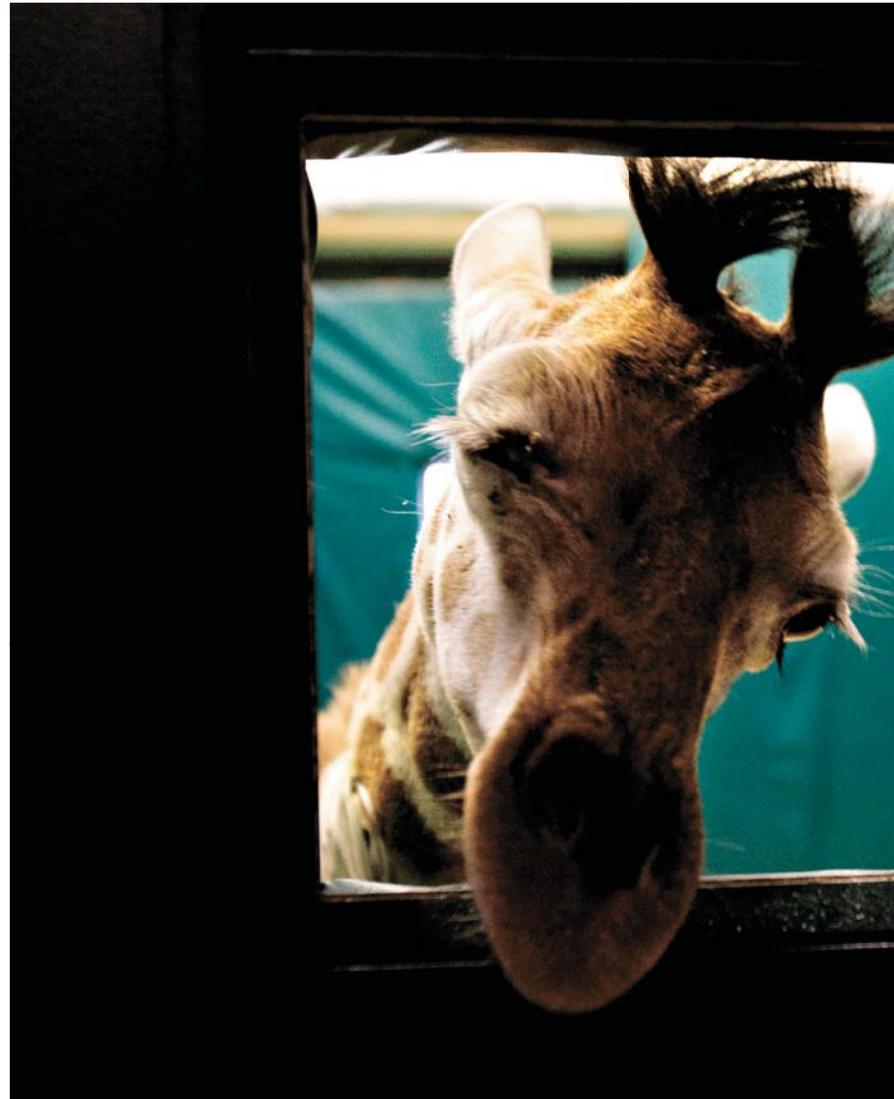
The moments you missed

A look at few of our favorite unpublished photos from 2008



1

1. Devan Dempsey, 2, blows a kiss for the photographer during his stay at Shands at UF. 2. Gracie, a baby giraffe who was treated at the UF College of Veterinary Medicine in March, leans in for her close-up. 3. Human anatomy is one of the hallmarks of medical training. Here, first-year students in the UF College of Medicine participate in their first human anatomy lab. 4. Dr. Michael Okun works with a patient undergoing a deep brain stimulation operation. 5. Veterinary resident Dr. Amanda House visits with a colt at the UF College of Veterinary Medicine.





The miracle child

Jacksonville doctors helped girl battle leukemia

UF patient Jenea Berrios and her mother, Jackie (second from right), visit with College of Medicine-Jacksonville staff Dr. Shawna Perry (from left), Dr. Phyllis Hendry and nurse Stacey Collins. Berrios also attended a charity event over the summer where she was taken care of by celebrity waiters, including Jacksonville Jaguars Maurice Jones-Drew and Rashean Mathis (third and fourth from left).



By Kandra Albury

In April 2006, when Jenea Berrios was 8, she started complaining of pain in her joints and a loss of appetite. Her mother took her to the doctor and was told the discomfort her daughter was experiencing was only growing pains.

Two weeks following the appointment, Jenea's father found her on the bedroom floor foaming from the mouth. Thinking she was having a seizure, her parents took her to the nearest fire station. From there, firefighters transported Jenea to Shands Jacksonville.

"I looked at her pale face and knew that she was a very sick little girl," said Phyllis Hendry, M.D., a pediatric emergency specialist at the UF College of Medicine-Jacksonville. "When we drew her blood it looked like pale red Kool-Aid."

Hendry's initial suspicion was that Jenea had some type of cancer or blood disorder. Tests showed that Jenea's blood hemoglobin level was lower than Hendry had ever seen before. Jenea's body was in shock, and she lost her eyesight. A team of 10 physicians, nurses and technicians worked to stabilize her as she was put on a ventilator and given blood transfusions.

"I did not leave her bedside for two straight hours," said Hendry, also an associate professor and assistant chair of research for the department of emergency medicine in Jacksonville. "My colleagues from the main (emergency department) and the Trauma Center managed the rest of the pediatric patients so that I could focus on Jenea."

Once she was stabilized, tests revealed that Jenea had acute lymphoblastic leukemia, also called ALL. She received additional treatment at Wolfson

Children's Hospital.

ALL is cancer of the white blood cells and is the most common form of cancer diagnosed in children. White blood cells multiply at an accelerated rate and may collect in the brain or spinal cord, causing the body to shut down. Symptoms of ALL include achy bones and joints, chronic fatigue and easy bleeding or bruising. One in 29,000 children in the United States is diagnosed with this rare disease each year, according to the National Cancer Institute.

Jenea's journey to recovery hasn't been easy. Although her cancer has been in remission since August 2006, she continues to be in and out of the hospital for chemotherapy treatments. Jenea will finish her last treatment in November.

Last June, Jenea received star treatment during Morton's Medicine and Miracles annual event benefiting Children's Miracle Network. More than 20 celebrity waiters, including players from the Jacksonville Jaguars, entertained and served those attending. During the event Jenea was named the miracle child and she shared her story. A total of \$50,000 was raised.

Today, Jenea is like any other girl her age. Her curly, black locks have grown back and her vision has been restored. A sixth-grader at LaVilla School of the Arts, Jenea enjoys reading and painting. She also continues to earn high marks in various subject areas. When Jenea grows up, she hopes to become either an actress or a physician who specializes in oncology.

"You could never tell that she is fighting cancer," said Jenea's mother, Jackie. "She is such a very positive child."

Jackie said she is forever grateful for the advanced technology and highly trained UF physicians who stabilized her daughter and saved her life.

"Thank God Dr. Hendry was there," Jackie said. "I could tell within a few seconds of being in her presence that she knew what was going on. Everyone there was great. Their main focus was Jenea, and I couldn't ask for anything else." **P**

Meet the CHAMPS

By Kelly Brockmeier

Regardless of what happens on the football field Jan. 8, UF has already earned one national title this year, a victory earned not on the gridiron but on the techno-turf of the medical simulation lab. Three emergency medicine residents from UF's College of Medicine-Jacksonville were crowned the champions of medical simulation during a first-of-its-kind competition in October.

Spencer Topp M.D., Zach Goldman M.D., and Rich Westenbarger M.D., three chief emergency medicine residents, claimed their title during the 2008 scientific assembly of the American College of Emergency Physicians in Chicago, competing



UF emergency medicine residents (in blue, from left) Dr. Spencer Topp, Dr. Zach Goldman and Dr. Rich Westenbarger, earned top honors during a recent medical simulation contest. Shown with them is team coach Dr. David Caro.

against teams from Harvard Medical School, Louisiana State University, Northwestern University, the University of Illinois and the Mt. Sinai School of Medicine.

The teams were each given mock medical scenarios and 10 minutes to treat their "patient," a human patient simulator.

In the first round, the UF team went up against the University of Illinois in the first round as 100 observers watched. At the completion of the round, the audience voted for the team they felt best handled the case.

UF, LSU and Mt. Sinai advanced to the final round and were each given the same scenario. Once again the audience voted, and in the end, the UF team came out on top in the inaugural year of the competition.

The team brought home a plaque and \$1,500 for the UF Emergency Residency program.

The home team was well-trained for the competition. The UF Center for Simulation Education and Safety Research at Shands Jacksonville is the largest non-military simulation lab in the United States.

"In emergency medicine, in particular, we do a lot of high-stakes evaluations on patients who are critically ill. We want our residents to have as much opportunity to practice as possible," said David Caro, the UF team's coach and the residency director in the department of emergency medicine at the UF College of Medicine-Jacksonville.

The mannequins used in the simulation lab are complex, lifelike robots that, under computer control, mimic almost every known human physical condition. They have skin that can be pierced, cut and sutured, as well as bones and organs that can be observed, felt and removed. **P**

Jacksonville gets new fellowships

The Accreditation Council for Graduate Medical Education recently approved two new fellowships in cardiac electrophysiology and pulmonary and critical care medicine for the UF College of Medicine-Jacksonville.

Steve Hsu, M.D., a UF assistant professor of medicine and medical director of the electrophysiology program, will direct the electrophysiology fellowship. This one-year training program will appoint two fellows. James Cury, M.D., a UF associate professor of medicine and division chief of pulmonary, critical care and sleep medicine, will oversee the pulmonary and critical care medicine program. This three-year program will appoint six fellows.

"We are pleased to be providing subspecialty training in these areas of high demand," said Constance Haan, M.D., senior associate dean for education affairs. "Dr. Hsu and Dr. Cury, along with their faculty colleagues, are proud to have successfully achieved program accreditation, and look forward to the opportunity to contribute to graduate medical education on our campus."



Jacksonville doctor passes away

Walter Ray, M.D., an assistant professor of neurology at the College of Medicine-Jacksonville, died suddenly Dec. 9. He was 69.

Ray, who also spent years as a doctor in Ocala, attended UF's College of Medicine and completed his neurology residency here. He had been a faculty member at the College of Medicine-Jacksonville since 1999.

"He was an immensely popular physician known for his warmth and compassion as well as his encyclopedic knowledge base," said Robert Nuss, M.D., dean of the regional campus, in a statement about Ray's death. "His caring, fatherly presence set his patients at ease. Dr. Ray possessed a rich sense of humor that was typically self-deprecating. His patients, students and colleagues were fortunate to have known him. We offer our deepest sympathy and condolences to his family."



PHOTO BY SARAH KEWEL

UF College of Medicine graduate students Jeannette Lo-Dauer (from left), Megan Greenlee, Michelle Gumz (red shirt), Rose Mikulski, Susan Ellor, Sara Palmer and Lisa Stow recently formed the UF chapter of the Triple Negative Breast Cancer Foundation. The group is holding the NuNu 5K Jan. 24 to raise money for TNBC research.

Remembering NuNu

UF students form foundation to raise money for breast cancer research

By Anne Myers

There were just eight National Institutes of Health grants awarded in 2008 to researchers studying triple negative breast cancer, and only a few of them dealt specifically with the disease. Considering it causes one out of every four breast cancer deaths, the lack of research funding for TNBC seemed a little odd to a group of graduate students in UF's College of Medicine.

After losing a dear friend, Mary Lou "NuNu" Miller, to triple negative breast cancer in September, the students decided to form the UF chapter of the Triple Negative Breast Cancer Foundation. The group is joining the national foundation in its quest to promote awareness of the disease and raise funds for research to find a treatment.

TNBC is unique in that its cells lack receptors for estrogen, progesterone and human epidermal growth factor receptor 2. Because of the lack of receptors, this type of breast cancer doesn't typically respond well to receptor-targeted treatments, which are generally considered the most effective way to treat breast cancer. TNBC is more prevalent in women in their 30s and 40s and has a high probability of spreading to the brain and spinal cord. It is also the only form of breast cancer that can occur in men.

To help raise money for research, UF TNBC will be holding two fundraisers during the spring semester in memory of Miller. The NuNu 5K Race will be held at 8:30 a.m. Jan. 24 on the UF campus. The Mary Lou Miller TNBC Gator Gala will be held in March, in the Reitz Union Grand Ballroom. The formal event will feature music, a silent auction and the presentation of the first annual UF TNBC Award for Research Excellence. All proceeds from these two events will go directly to the Triple Negative Breast Cancer Foundation.

"With these fundraisers we hope to raise awareness about TNBC and support a wonderful nonprofit organization that wishes to promote not just awareness, but also research," said Megan Greenlee, the marketing director of UF TNBC and a graduate student in the Interdisciplinary Program in Biomedical Science.

For more information or to register for the race and purchase tickets to the gala, visit UF TNBC's Web site at sites.google.com/site/uftnbc. If you are interested in sponsoring the race and gala or wish to donate time, money or items for the auction, more information can also be found on the Web site. **P**

Faith . . . and food?

Grant brings health focus to African-American churches

By Chris Brazda

Compared with all other racial and gender groups in the United States, African-American women are at higher risk of developing hypertension and obesity. The Blue Foundation for a Healthy Florida, the philanthropic affiliate of Blue Cross and Blue Shield of Florida, is partnering with UF to reduce this health disparity.

A \$100,000 grant from The Blue Foundation is enabling UF's department of psychology to spearhead a church-based health empowerment program aimed at increasing and sustaining healthy cooking, vegetable consumption and other health-smart behaviors. As a result, the program will decrease blood pressure and BMI among pre-hypertensive, hypertensive and/or overweight/obese African-American women and their families.

"Food preferences and traditional food preparation practices may contribute to the disproportionately high number of African-Americans who are overweight or obese and/or have pre-hypertension or hypertension," said Carolyn Tucker, Ph.D., a distinguished alumni professor and term professor in health disparities in the College of Liberal Arts and Sciences and the College of Medicine. "Although African-Americans understand the importance of a healthy diet and health-smart behaviors such as exercising, it's difficult to translate that knowledge into their everyday lifestyles."

Selected church members and pastors from 10 African-American churches in Gainesville will be trained as health promotion coaches to encourage the buying and eating of healthy vegetables, healthy cooking practices and active lifestyles among 120 targeted African-American women and later among their congregations in general.

The participating women will be given funds to purchase vegetables and seasonings to be used for a no-salt, low-fat vegetable cook-off between local churches. After the cook-off, 40 of the women will be given funds to buy vegetables for three months. This will determine if an increased income plays a role in the frequency of vegetable consumption among families.

The grant to UF is part of The Blue Foundation's four-year initiative called Embrace a Healthy Florida. The statewide initiative supports community-based programs that promote change in families and parenting, child-care centers and schools, neighborhood recreation opportunities and other influences on the accessibility of healthy food and physical activity.

"Parents can greatly influence a child's lifestyle and eating habits," said Susan Towler, executive director, The Blue Foundation for a Healthy Florida. "This program's efforts to change the way caregivers prepare food is key to reducing or preventing a child's chance of becoming overweight or obese now and later in life." **P**

Honoring Gators from across the globe

By Anne Myers

The UF International Center presented awards to outstanding international students during its 14th annual International Student Academic Awards ceremony Nov. 18.

Tolga Barker, a fifth-year doctoral student in the College of Medicine's Interdisciplinary Program in Biomedical Sciences, is a recipient of the Alec Courtelis Award. Barker's research focuses on the autoimmune disease lupus, and he has conducted several presentations and has co-authored 10 peer-reviewed papers on the subject. He is active with the College of Medicine's Graduate Student Organization and still finds time to volunteer with local charities.

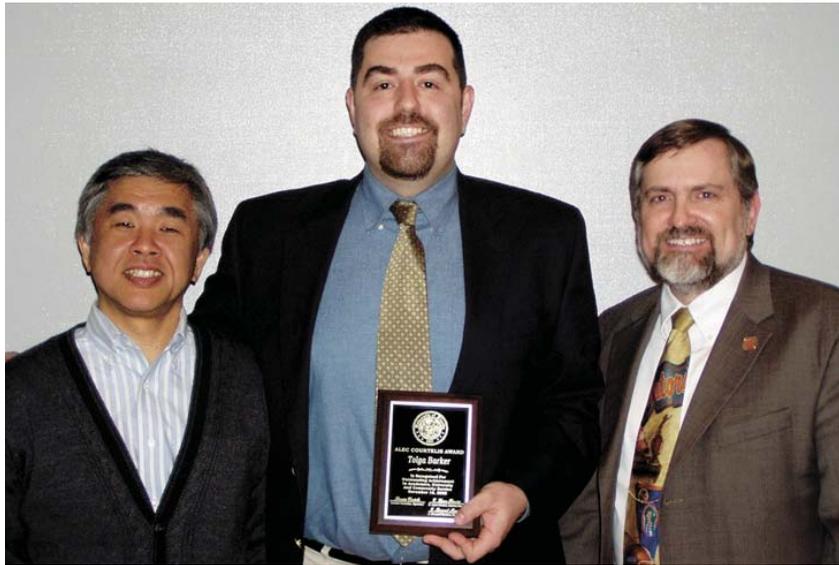
Several other students from the Health Science Center received Outstanding Student Awards. The College of Medicine's recipients include Eun Jung Choi, Meiyu Dong, I-Ju Lin, Qian Liu, Santhi Pondugula, Mercedes Prucencio-Alvarez, Xiaolei Qiu, Jihae Shin, Nan Su and Tolga Barker.

The College of Pharmacy recipients are Natasha Chen, Chienning Hsu, Yi Jiang and Maximilian Lobmeyer.

Recipients from the College of Public Health and Health Professions are Manuela Corti and Milapjit Sandhu.

The College of Veterinary Medicine recipients are Ana Cristina Bassit, Yingling Huang, Ayanna Carla Phillips, Joshua R. Powe and Weerapongse Tangjitjaroen.

Also honored was Emel Ozdora, a graduate student in the College of Journalism and Communications and staff member in the College of Dentistry. **P**



Tolga Barker (center) received the Alec Courtelis Award at UF's International Students Academic Awards ceremony Nov. 18. Standing with Barker are his mentor, Dr. Minoru Satoh (left), and Dr. Wayne McCormack, associate dean for graduate education in the College of Medicine.

Recognizing research UF awards top researchers with fellowship

By Anne Myers

Each year, the UF Research Foundation recognizes professors who have helped make UF a top-tier research university. Nine of this year's 33 UFRF professors, who were honored Nov. 12, are from the Health Science Center.

MARY B. BROWN, Ph.D., a professor of infectious diseases and pathology in the College of Veterinary Medicine, has focused her research on the disease properties of mycoplasmas, bacteria that are not affected by antibiotics.



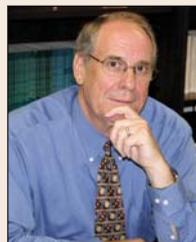
Mary B. Brown

EDWARD K.L. CHAN, Ph.D., a professor of oral biology in the College of Dentistry, is credited with discovering the protein GW182, which is linked to the treatment of deadly diseases such as oral cancer.



Edward K.L. Chan

R. PAUL DUNCAN, Ph.D., a professor and chair of health services research, management and policy in the College of Public Health and Health Professions, seeks to explain why some people can afford health insurance while others cannot. His research has gained recognition as a basis for potential modifications to the health-care system.



R. Paul Duncan

JENNIFER H. ELDER, Ph.D., R.N., a professor and chair of health

care environment and systems in the College of Nursing, has been researching autism and other child neuropsychiatric disorders for the past 27 years. Her research has focused on fathers' interactions with autistic children and the effects of a wheat- and milk-free diet on the treatment of behavioral problems.



Jennifer H. Elder

JEFFREY A. HUGHES, Ph.D., a professor of pharmaceuticals in the College of Pharmacy, has devoted his research to Alzheimer's disease and cancer. He is currently exploring the use of gene therapy to reduce the build-up of plaques in the brain, which is associated with Alzheimer's disease.



Jeffrey A. Hughes

LAURENCE M. MOREL, Ph.D., a professor of pathology, immunology and laboratory medicine in the College of Medicine, has made great progress in the study of lupus, an autoimmune disease that causes an immune system to attack the body's own cells, tissues and organs.



Laurence M. Morel

DAVID R. NELSON, M.D., an associate professor of medicine in the College of Medicine, has focused his research on liver disease and the immune system, specifically the body's immune response to hepatitis C.



David R. Nelson

DIETMAR W. SIEMANN, Ph.D., a professor of radiation oncology in the College of Medicine, is searching for novel approaches to treat cancer. His research seeks to destroy tumors by targeting and cutting off the tumor's blood supply.



Dietmar W. Siemann

SANKAR SWAMINATHAN, M.D., an associate professor of internal medicine and molecular genetics and microbiology in the College of Medicine, has become an expert on how AIDS and cancer relate to common viruses, specifically Epstein-Barr virus and Kaposi's sarcoma-associated virus.



Sankar Swaminathan

CAROLYN M. TUCKER, Ph.D., (not pictured) a professor of psychology and a researcher with the College of Medicine department of community health and family medicine in the College of Medicine, is the organizer of a project that aims to bridge the gap separating minorities and low-income communities from adequate health care.

CHARLES S. WINGO, M.D., a professor of medicine and physiology in the College of Medicine, focuses his research on kidney regulation of serum potassium and how it is crucial to maintaining normal heart rhythm.



Charles S. Wingo

JACKSONVILLE

YVETTE MCCARTER, Ph.D., a professor of pathology and laboratory medicine, has been appointed by the American Society for Microbiology as the microbiology representative to The Joint Commission's Laboratory Professional and Technical Advisory Committee. This committee is involved in advising The Joint Commission on laboratory-related issues. McCarter will serve a four-year term.



Yvette McCarter

ROBERT NUSS, M.D., dean of the UF College of Medicine-Jacksonville regional campus and associate vice president for health affairs, has been named to the Florida Board of Medicine, which oversees physicians throughout the state. The appointment was made by Gov. Charlie Crist Nov. 18. Nuss will serve a four-year term, pending approval from the Florida Senate. The board certifies physicians and physician assistants, establishes regulations for licensure, imposes penalties for violations and adopts standards for physician assistants.



Robert Nuss

COLLEGE OF MEDICINE

DAVID MEURER, M.D., a clinical assistant professor of emergency medicine and medical director of the ShandsCair Adult Team and the Gainesville Fire and Rescue HazMat Team, was recently appointed to the State Emergency Medical Services Advisory Council. The council, which is

made up of individuals from different constituency groups, serves to advise the Florida Department of Health Bureau of Emergency Medical Services. Meurer seeks to represent both citizens and EMS providers and advocate for aeromedical issues during his appointment.



David Meurer

ADRIANO TONELLI, M.D., a second-year pulmonary and critical care fellow, received the Young Investigator Award at CHEST 2008, the American College of Chest Physicians' national meeting, in Philadelphia Oct. 29. Awards were based on outstanding original scientific research, and recipients were evaluated on their written abstract and presentation. Tonelli's work was titled "The majority of adults identified as PiZZ Alpha-1-Antitrypsin deficient are over the age of 50."



Adriano Tonelli

PUBLIC HEALTH AND HEALTH PROFESSIONS

BRUCE CROSSON, Ph.D., a professor of clinical and health psychology, received a Senior Research Career Scientist award from the Department of Veterans Affairs Rehabilitation Research and Development Service. He also received a contract for a two-year, multicenter study on Gulf War illness that will bring \$905,000 to UF. In addition, he was recently re-appointed as an honorary professor at the University of Queensland in Brisbane, Australia. Honorary



Bruce Crosson

professorships are awarded to internationally renowned individuals to facilitate scientific communication and collaboration.

IDA KELLISON and ANIA MIKOS,

doctoral students in the department of clinical and health psychology, received Benton-Meier Neuropsychology Scholarships from the American Psychological Foundation. Only two of these scholarships are awarded nationally each year, and UF students claimed both 2008 awards. The \$2,500 scholarships recognize students with a promising career in neuropsychology. UF neuropsychology students have won at least one of the Benton-Meier Neuropsychology Scholarships each year for the past several years.



Ida Kellison



Ania Mikos

SHANNON SISCO,

a student in the clinical and health psychology predoctoral program, was awarded a National Institute on Aging Predoctoral Fellowship in Aging. The 12-month fellowship is reserved for students who display a commitment to aging research and have been productive in terms of publications, presentations and grants.



Shannon Sisco



An ambassador for students

By Sarah Carey

Filled with sadness for the passing of a man who helped define the UF College of Veterinary Medicine, friends and family transformed a memorial service Nov. 19 into a passionate celebration of the life of longtime faculty member and dean emeritus of students Jim Himes, Ph.D.

Past and present students, faculty and administrators as well as members of Himes' family shared their memories of a man who was born in Ohio, but who called Gainesville home for more than 40 years.

Himes, who passed away Nov. 16 at 89, came to UF in 1965 as an assistant professor of veterinary science in the College of Agriculture. He received a joint appointment in the newly formed College of Veterinary Medicine in 1973, where he eventually served as assistant dean and dean of students until his retirement in 1992.

But even after retirement, he kept the college close to his heart.

"He was just an extraordinary person who made this college his family until about a month ago," recalled the college's dean, Glen Hoffsis, D.V.M.

"He made eye contact. He looked directly at you and smiled," recalled Alexa McDermott, senior class president.

Link Welborn, D.V.M., a member of the college's class of '82 and a driving force behind the college alumni council's creation of the James A Himes Scholarship, remembered meeting Himes while a pre-veterinary student in 1977.

"The period of preparation for veterinary school and the application and interview process is a stressful time for every student, and it was no different for me," Welborn said. "However, Dr. Himes' quiet, warm, reassuring manner relieved as much of the anxiety as was possible. He made every student feel as if he cared for them, and I'm convinced that he did genuinely care for all of us." **P**

THE transplant KID

Now a UF vet student,
Max Polyak helped
develop a technique that
is saving people's lives
one organ at a time



Max Polyak, a UF veterinary medicine student, also serves as director of the organ perfusion center at the Shands Transplant Center at UF. Here, he is shown preparing a kidney for machine perfusion and transplantation.

By Sarah Carey

After graduation from the University of Southern California in 1990, Max Polyak planned to be a diplomat. Toward that end, he participated in a medical relief team, flying critically injured civilians out of Bosnia during that country's civil war.

The experience changed him forever.

"The longer I was there, the more I realized it was the diplomats who were screwing things up," said Polyak, now a sophomore veterinary student at UF. "The people having the biggest impact were the physicians and nurses — the medical folks on the ground."

Instead, Polyak nurtured his travel bug, traveling to England, where he received a master's degree in natural sciences from the University of Cambridge. With an eye on medical school, Polyak wound up back in the U.S., working in Cornell University's transplant surgery department.

The 10 years he spent there allowed him to cultivate a unique niche.

Focusing on techniques to improve the function of transplanted organs, Polyak developed the department's research laboratory, the largest of its kind in the country. His research focused on the time when a donor organ is outside of the body prior to transplantation.

"We formulated different types of drugs that we would infuse into organs so they'd function better," Polyak said. "When you watch 'ER' you see an Igloo cooler with an organ inside of it being rushed to the emergency room. We changed that paradigm. We would hook the organ up to a machine to trick it into thinking it is still inside the body."

This technique, now in practice at several transplantation centers in the U.S., gives medical personnel more time to test the organ for viability

and to send it to recipients across the country.

Polyak's research involved developing the drug solution used to perfuse the organ and perfecting the machine used to optimize organ viability.

"I was really close to going to medical school, and the surgeons I worked with really wanted me to stay," Polyak said. "But I knew it wasn't for me."

Polyak, now 39 and a father, wanted to be a veterinarian, like his own father and brother. He applied to the University of California at Davis, the University of Pennsylvania and UF, and was accepted at all three schools. But Polyak was Florida-bound.

Soon after moving to Gainesville, Polyak heard from some of his UF contacts from the human transplant world. "They said, 'we heard you were here in Gainesville and we want to start a clinical service to machine-perfuse donor kidneys for our patients,'" Polyak recalled. "They knew about my experience and asked if I would help set up an organ perfusion lab, so we started talking and got everything approved."

In the past year, the Shands Transplant Center at UF's organ perfusion laboratory, which Polyak directs, has increased the number of kidney transplants performed at UF&Shands by 120 percent.

"We are now taking organs we wouldn't have even considered years ago and actually using them," he said.

Being a veterinary student and holding down a job directing the perfusion lab is not as difficult as it might appear. Many procedures can be scheduled,

and he works with a committed staff, Polyak said.

Of course, his veterinary education is also taking him into new areas of research.

Polyak recently worked with UF large animal surgeons David Freeman Ph.D., and Alison Morton, D.V.M., on equine colic.

"We are delighted to have him involved in our research on improving survival in ischemic-injured equine colon," said Freeman, associate chair of large animal clinical sciences, associate chief of staff of the Alec P. and Louise H. Courtelis Equine Hospital and director of the Island Whirl Colic Research Laboratory.

"Max is a remarkable individual and has accomplished more before he earns his professional degree than many accomplish afterward, in veterinary or human medicine."

Polyak is excited about the possibility of future human and veterinary medicine collaborations in transplantation technology.

"We now have a series of experiments that are ongoing," Polyak said. "The goal is to use techniques that are proven in the human organ transplant field to improve healing in surgical colic cases."

Polyak co-authored several papers presented this summer at the International Equine Colic Symposium and the American Gastrointestinal Association. Most recently, he presented his findings at the American College of Veterinary Surgeons meeting in San Diego.

"Max has brought novel concepts and ideas to our research, and he is definitely a great person to work with — very intelligent, yet unassuming, and with a great sense of humor, too," Morton said.

As for his future? Polyak likes contemplating a career in academic veterinary medicine or possibly equine practice.

"The area of equine veterinary medicine is certainly the most attractive to me," he said. **P**

SEE YA!



PHOTO BY SARAH KIEWEL

Gail Birket (from left) receives a vehicle check from occupational therapist Linda Struckmeyer and UF occupational therapy students Frances Faucher and Christopher Cardani on Nov. 14. The occupational therapy department hosted CarFit, a free national program that gives older adults the opportunity to check how their personal vehicles “fit” them and receive advice on adjustments to improve driver safety.



PHOTO BY SARAH KIEWEL

The band Deny the Fall, featuring UF medical resident Matthew Willey (left), performed Nov. 14 at MEDSTOCK, an event Willey helped start in 2005 to raise funds for UF medical humanitarian trips.



PHOTO BY PRISCILLA SANTOS

Patti Behrns (right) sets up toys for the Shands Children’s Hospital playrooms Dec. 17. Behrns, Amy Zingarelli (left) and other wives of UF surgeons, organized a toy collection during the department’s holiday party. Gifts for children of all ages were donated to the Shands Child Life program, which helps children and families cope with hospitalization. Child Life specialist Naomi Martinez said the gifts were very helpful because donations are down this year. If interested in helping, Shands’ Child Life has a wish list on amazon.com.

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