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ON THE COVER: During the past 50 years, the Health Science Center has contributed to the community in a variety of ways. The clinic featured on the cover, established in Mayo, Fla., by the College of Medicine, is just one clinic, program or activity where HSC faculty, students and staff have made a difference over the years. The story starts on page 10.

Ready for takeoff

Bob Rowley, of Ocala, prepares to release a mature American bald eagle into a meadow May 31 at Paynes Prairie in Gainesville. Assisting is zoo medicine technician Elijah Rooney from UF's Veterinary Medical Center. The eagle, which had been found on a nearby road and taken to UF for treatment on April 20, is believed to have been hit by a car. Named Samantha by UF veterinary students, the bird was treated for shock and head trauma and was released May 3 to Audubon's Center for Birds of Prey in Maitland for further rehabilitation.



PHOTO BY SARAH KEWEL

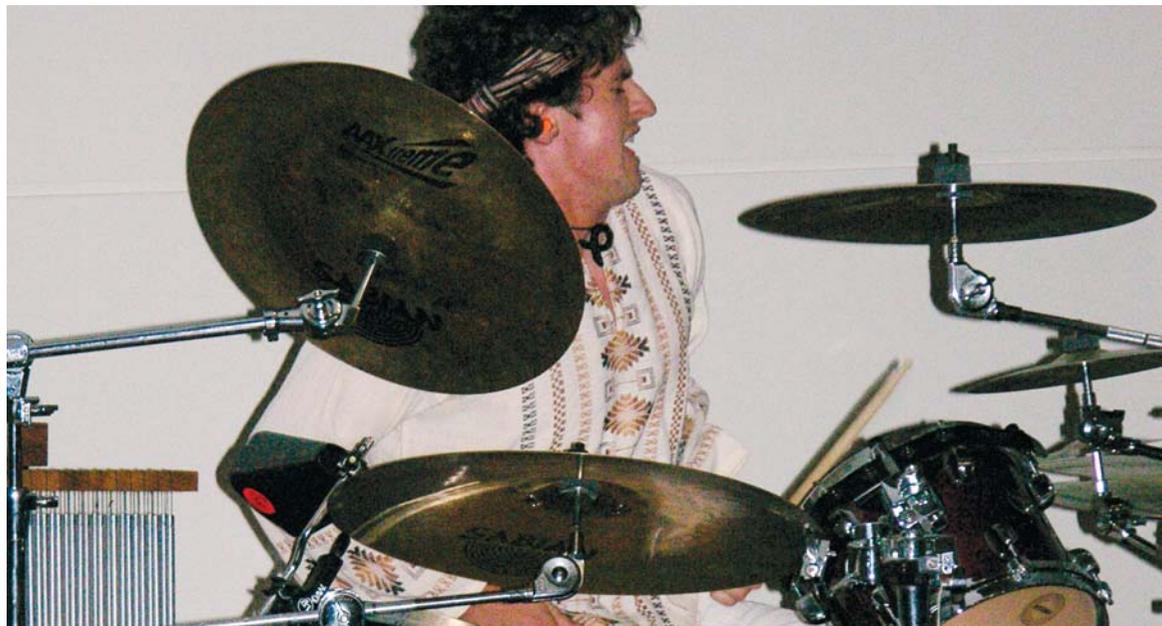
MAKING WAY FOR A NEW CANCER HOSPITAL



PHOTO BY SARAH KIEWEL

Demolition crews began tearing down the former University Centre Hotel in Gainesville May 22, as part of the site preparation for the new Shands at UF Cancer Hospital. Crews are demolishing the 11-story hotel using a 100-ton crane with a 180-foot boom and a 4,000-pound wrecking ball.

DENTISTRY'S ACID ETCH TALENT SHOW IS A HIT!



Dental freshman Danny Bass put his exuberant and creative percussive talent in action to win \$100 and first place May 4 in the first College of Dentistry Acid Etch Talent and Comedy Sketch. Organized by the UFCO Dental Ambassadors, Acid Etch featured 16 student and faculty performances — including a crowd-wowing baton-twirling act by Dean Teresa A. Dolan — and video skits produced by each class in the D.M.D. program.

Attended by more than 200 dentistry faculty, staff and students, Acid Etch was modeled on TV's "American Idol," complete with a judging trio of fave faculty members Buddy Clark, D.M.D., Ph.D., (as Randy), Venita Sposetti, D.M.D., (as Paula Abdul) and Marc Gale, D.M.D., M.Ed., (as the irascible Simon). The judges critiqued performers in good spirit and with enormous humor. After Bass' winning drum/stomp/drink-blending performance, which garnered a standing ovation from the audience, Gale quipped, "I would like to know why you got to wear earplugs and we didn't!"

A NOBEL SPEAKER

Nobel Laureate Peter C. Agre, M.D., still remembers what his mother said when she found out he won the Nobel Prize in chemistry in 2003.

"She said, 'Tell Peter not to let it go to his head,'" Agre told a packed auditorium during his keynote address as part of the College of Medicine's annual research day April 11.

In 1992, while a researcher at Johns Hopkins University, Agre pinpointed a protein that allows water to permeate cells. Before the discovery of this "water pore," scientists had tried for years to discover exactly how water could invade some cells and not others.

The discovery opened doors in genetic, biochemical and physiological research, allowing scientists to delve deeper into kidney disorders and other diseases caused by water pore defects.

Now 57, Agre, pictured below with Cauveh Emrai, M.D., serves as vice chancellor for science and technology at Duke University Medical Center.



PHOTO BY SARAH KIEWEL

NEW RESEARCH BUILDING TURNS HEADS

It hasn't even opened for business yet, and the UF Cancer-Genetics Research Complex is already winning awards.

The City Beautification Board of Gainesville recently bestowed the 280,400-square-foot building with a Silver Award in the Excellence in Institutional Facilities category.

The five-story UF Shands Cancer Center/ICBR wing is visible from Archer Road. Facing north toward Lake Alice, a six-story wing topped by a greenhouse contains the Genetics Institute. Both wings are connected by a perpendicular five-level common area, which makes it look like an offset "H" from above.

Researchers are expected to start moving into the building beginning in mid-June.

Intrigued by the heart and stirred by medicine

White is first chairman of the department of radiology in Jacksonville

By Patricia Bates McGhee

From the get-go, he didn't want to go to medical school. But a trusted undergraduate adviser gave Richard D. White, M.D., some advice that set him on a long, rather unorthodox path to being named the first chairman of the department of radiology in the UF College of Medicine–Jacksonville.

“I was a biology major at all-male Hamilton College in Clinton, N.Y., and had no idea what I wanted to do but knew I wasn't going the route of medicine,” says White.

Along came Duncan Chiquoine, Ph.D., White's academic adviser, who cared about White but showed it in an unusual way — by frustrating him.

“He told me I was a good kid but I was boring and that I should go to med school and

pathologists and a cardiologist, Galen S. Wagner, M.D., who became his next mentor.

White received his M.D. from Duke in 1981 before spending 1981-82 in cardiac investigation as one of the first 10 fellows of the Sarnoff Foundation for cardiovascular research. Still, he anguished over how to express an interest in heart work and in research without spending 12 years training in cardiac surgery or years of residency in general internal medicine prior to a cardiology fellowship.

“Ironically, I had a very interesting experience with a radiology rotation at Duke, but I thought that wasn't really medicine and wanted a different route.”

Again, White found himself in a new place without knowing what he was getting himself into. He completed an internal medicine internship at the University of California–San Francisco Hospitals from 1982 until 1983. During this time he realized that his personal interest in cases waned once a diagnosis was made.

“I was intrigued about the issues that existed before the fundamental problem was identified,” he says. “My attraction was really in the diagnostic end of things but yet I always loved the heart.”

Radiology became more attractive to White, thanks to UCSF's impressive radiology department, directed by Alexander R. Margulis, M.D. White completed a residency at UCSF in diagnostic radiology.

“At San Francisco I was lucky enough to be one of the first persons to do cardiac MRI and CT scanning in the early 1980s when we were still trying to figure out how to do it, even though I never had any formal training in it,” says White, who stayed on at UCSF for a two-year National Institutes of Health fellowship in cardiovascular imaging.

After completing his training, White served as director of cardiovascular magnetic resonance at Georgetown University Hospital in Washington, D.C. from 1987-88 and as head of cardiovascular imaging at University Hospitals of Cleveland from 1988-89. In 1989 he joined the Cleveland Clinic Foundation, where he eventually became clinical director of the Center for Integrated Non-invasive Cardiovascular Imaging and held appointments in radiology, medicine and surgery and a joint appointment to the department of medical subspecialty pediatrics (division of pediatrics).

Throughout his career, he has focused on the development, initial implementation and eventual broad-scale clinical application of advanced MRI techniques for anatomical and functional assessment of diseases of the heart and central vasculature. More recently, White has been involved in comparative and integrative work with both cardiovascular MRI and multidetector CT.

“My own path is a little atypical — not what I consider a traditional radiology approach,” he admits. “I view myself as sort of actually circling back into radiology rather than having gone directly at it.”

At UF White is already stirred up.

“My goal is to try to replicate what I was able to do in a subset of radiology (cardiovascular imaging) but apply it across the board,” he says. “The department of radiology is going to be more and more of a central technology facility for imaging physicians and scientists that interfaces with all of the clinical services in patient care and research, as well as providing a backbone for the growth of this institution.” **P**



Dr. Richard D. White is stirred up by his new position as the first chairman of the department of radiology in the UF College of Medicine–Jacksonville.

do two things — get stirred up and fall in love,” he said. “To this day I sort of thank him for having not been gentle with me, even though his advice frustrated me.”

To White's surprise, medical school did stir him up...eventually. Born in Schenectady, N.Y., and raised in the Saratoga Springs area, he earned his biology degree at Hamilton in 1978 and was ready to start med school at the University of Rochester when the first frustration hit. Just days before he was to leave for Rochester, Duke University med school called with an offer. White made a whirlwind trip to Duke — his first trek south of the Mason-Dixon Line.

“To me at the time, going south was going to visit my grandparents in Queens,” he says, “but I was intrigued about going to an Ivy League school within a tobacco town; talk about getting stirred up!”

He accepted Duke's offer. Once at Duke, White didn't understand why he was there. He hated every minute of it and was ready to quit until he stumbled onto a research opportunity. Always intrigued by the heart, he began working with two cardiac

DMAT teams streamline the first response

By Patricia Bates McGhee

Nearly a hundred emergency first responders and staff met last month on the UF Health Science Center–Jacksonville campus to attend the largest medical simulator-based national training event for avian flu and hurricane preparedness, and for lessons in hospital administration during such emergencies.

Conducted by UF’s Center for Simulation Education and Safety Research at the College of Medicine–Jacksonville, the event targeted first responders assigned to Disaster Medical Assistance Team, or DMAT, FL-4 as well as other disaster management staff from as far away as Washington, D.C. and Colorado.

A DMAT is a group of professional and paraprofessional medical personnel (supported by a cadre of logistical and administrative staff) operating under Homeland Security that provides medical care during a disaster. DMAT FL-4 is located in northeast Florida and includes Alachua, Baker, Bradford, Clay, Duval, Flagler, Gilchrist, Levy, Marion, Putnam, Nassau, St. Johns and Union counties.

Attendees trained in several techniques and faced several scenarios — all following an avian flu outbreak. They role-played during an initial meeting between DMAT and hospital administrators, as DMAT arrived on the scene at the hospital after the outbreak. The next scenario jumped to midday of the same day, after tents had been set up and DMAT personnel were evaluating patients for avian flu and were treating trauma patients because the local trauma center was overrun. The third scenario was set four days later and

“Training large groups like this is a new approach for nonmilitary disaster response teams, and it is very realistic at all levels.” —David Vukich

involved a death toll of 30, logistical and communication failures, broken generators, contaminated water and anxious health-care providers.

“Training large groups like this is a new approach for nonmilitary disaster response teams, and it is very realistic at all levels,” said David Vukich, M.D., a professor and chair of the emergency medicine department at the College of Medicine–Jacksonville. “Everyone is familiar with how the military trains in functional units, but civilian health-care teams like DMATs rarely have the opportunity to bring all their members together for coordinated, high-fidelity training,” he said. “By simulating a mass casualty event, all members of the DMAT can be trained and tested in their individual roles and we can test the coordination, management and performance of the entire team.”

CSESaR is a collaborative effort supported by the College of Medicine–Jacksonville and Shands Jacksonville Medical Center. The 24,000-square-foot center allows special forces medics, emergency responders, hospital personnel, residents and students to receive specialized computer simulation training for anticipated environmental, medical or terrorist disasters. CSESaR’s mission is to promote quality patient care, expand patient safety initiatives and enhance multidisciplinary health care, education and teamwork through simulation and goal-directed training.

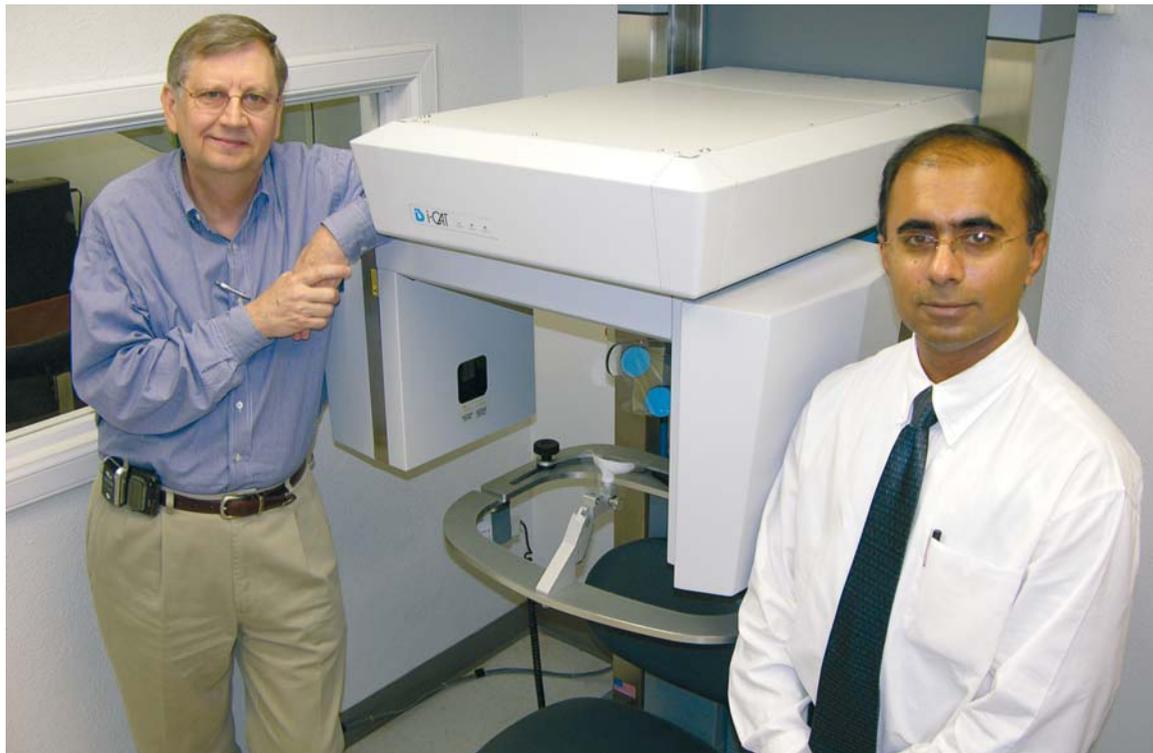
CSESaR’s simulation training unit uses “high-fidelity” mannequins in place of actual patients. Computer-controlled, the mannequins are complex, lifelike robots that mimic almost every known physical condition. A state-of-the-art adult female robot, for example, can have a heartbeat, working arteries and veins and have the ability to move, talk, breathe and give “birth” to an infant robot. 



UF’s Center for Simulation Education and Safety Research at the College of Medicine–Jacksonville was the site for a DMAT-4 training exercise for disaster first responders.

Adapting to the digital age

Radiography in dentistry gets in-sync with the times



James Pettigrew Jr., D.M.D., left, division head of oral and maxillofacial radiology, with Madhu Nair, D.M.D., an associate professor in the division, utilize cone beam computed tomography imaging to enhance patient service.

By Lindy McCollum-Brounley

German physics professor Wilhelm Conrad Roentgen discovered X-rays by chance in November of 1895 while conducting experiments using a cathode ray tube.

Roentgen's interest in the tube was to study fluorescent light generated by electricity. What he discovered instead was that the tube's invisible rays, which he called "X-rays," had the ability to make some, but not all, solid objects seem transparent when recorded on photographic plates. One can imagine Roentgen scouring his laboratory for objects to test the power of his new X-rays — books, coins and, eventually, his wife Anna's hand.

When Roentgen developed the film plate on which the image of Anna's hand had been recorded, the X-ray revealed clearly defined and delicate bones encased in a ghostly shadow of flesh, the third finger adorned by the black shadow of a ring.

It was the first X-ray image of human anatomy, and, as crude as it was, it set off a cascading chain of scientific and medical advancement unimaginable by its inventor.

Modern X-ray technology, or radiography, has come a long way since Roentgen's discovery. X-rays for dental purposes, known as oral and maxillofacial radiology,

was accepted by the American Dental Association as a recognized specialty in 1999 and has long been a fixture of dental practice — yet dental imaging has transformed in terms of technology just in the last few years.

"Oral and maxillofacial radiology may be seen as a service area as it has been in the past, where radiographs would be acquired based on a dentist's prescription, much like a lab service," said Madhu Nair, D.M.D., Ph.D., an associate professor of oral and maxillofacial surgery and diagnostic sciences. "But that has changed with the increased use of advanced imaging modalities such as CT and MRI.

"More complex procedures are now routinely done by dentists and dental specialists, with radiologists providing specialized expertise in digital processing and interpretation of the images," Nair said.

Increasingly sophisticated oral, head and neck surgeries, and other nonsurgical procedures have made the immediacy and flexibility of digital radiography a crucial tool for dental providers. Likewise, staying at the forefront of cutting-edge technology is crucial to the College of Dentistry's dental education and patient service missions.

Recognizing that and with help from a \$2 million U.S. Human Resources and Services Administration grant, the college is bringing its clinics into the digital

age with installation of digital radiography enterprisewide. The college also received an anonymous donation through its Implant Center, which enabled integration of cone beam computed tomography, or CBCT, in the division of oral and maxillofacial radiology earlier this year.

Digital radiography, which is quickly gaining acceptance across the globe, does away with traditional radiographic film and light boxes. It takes advantage of sophisticated software and electronic sensor technology to capture radiographic images, which are stored on secure college servers.

Radiation doses are usually comparable or lower with digital radiography than with film-based radiography, but digital images can be enhanced with software when they are less than perfect, further reducing radiation dose sustained during re-takes. Once the images are captured, they become part of the patient's electronic chart, easily shared among departments, clinics and specialists for increased efficiency in patient care.

CBCT is another exciting addition to the college's imaging capabilities. It uses cone beam technology to scan the head and neck region; then the software reconstructs the "slice" data as well as 3-D images that can be explored inside out on the computer screen.

"The CBCT is going to enhance patient service because it's convenient and gives us CT capability in-house," said James Pettigrew Jr., D.M.D., an associate professor and division head of oral and maxillofacial radiology. "We've been referring patients to Shands for CT scans, and we will continue to do that for contrasted studies (where dye is injected) and those more difficult studies needing medical grade images."

Head and neck scans, or studies, produced by CBCT imaging are acquired at a fraction of the radiation dose delivered during a regular, medical-grade CT scan.

CBCT reconstructs soft tissue as well as bone and can drill down to very specific areas with ease, usually with quality of detail necessary for radiologists to clearly identify certain dental or maxillofacial diseases and conditions. The images are useful for orthodontics, implant imaging, presurgical planning for implants, maxillofacial trauma and infections, some dental tumors and diseases, and any other malady within the scope of dentistry and oral and maxillofacial surgery.

CBCT and digital radiography are very different imaging technologies, but they share a common outcome of improved patient care through detailed dental imaging and electronic access to the digital images they produce.

There's no doubt that dental imaging has advanced into a digital age filled with possibilities for the future. One wonders if Roentgen would be all that surprised. **P**

Shands AGH's future to include relocated children's services

By Kim Jamerson

Shands HealthCare has outlined a vision to expand services offered at Shands AGH and strengthen the community hospital for the future.

As part of Shands' strategic plan to enhance patient care in the Gainesville area, a major portion of the children's services currently offered at Shands at UF will be relocated to the Shands AGH campus and will feature private rooms for children and their families.

"This is an exciting time for Shands HealthCare," said Tim Goldfarb, Shands HealthCare chief executive officer. "We believe our plans will provide a long-term solution to revitalizing Shands AGH while maintaining the essence of the hospital by supplementing its existing programs, such as family medicine and emergency services."

Programs moving from Shands at UF will include most pediatric nonsurgical services as well as pediatric otolaryngology (ear, nose and throat), orthopaedics, oral surgery, outpatient surgery and corresponding consultative and support services. Children's services staying at Shands at UF include cardiology, cardiac surgery, bone marrow, neonatology, general surgery, transplantation, trauma/burn, neurosurgery and a portion of pediatric intensive care. Vacated space at Shands at UF will be used to expand other clinical services.

Phase two of the recommended plan includes building a dedicated patient tower

for children's services at Shands AGH. This goal may take several years, depending on outside fundraising.

"Offering children's programs at Shands AGH will almost immediately improve the access to health care for children and families in our community," said Terry Flotte, M.D., College of Medicine chair of pediatrics. "There is great benefit to the ease of a more intimate and easily navigable facility. This will also allow us to create a door-to-door, child and family friendly environment for families under the great stress of having an ill child. This is a practical model with much to gain in the future. We ultimately hope to consolidate all children's services on a single campus where there's room to expand."

In addition to resolving the underutilization of available resources at Shands AGH, Goldfarb said the plan alleviates capacity issues that Shands at UF has been wrestling with due to ongoing demands for care.

Shands developed the strategy based upon extensive input from Shands and UF College of Medicine leaders. Goldfarb said they are in the early stages of the plan and have not worked out specifics related to budget and timeline, although they hope to have phase one changes complete in September.

The Shands HealthCare board of directors will finalize and approve the plans at an upcoming meeting. 

UF Physicians offer patients new Web-based way to access health service

By Kim Jamerson

For years patients seeking their doctors' advice have had two choices — schedule an appointment for an office visit or try to catch them by phone. Now, University of Florida Physicians, the UF College of Medicine's Gainesville-based faculty group practice affiliated with Shands HealthCare, is offering its patients an alternative, RelayHealth.

The RelayHealth service allows patients, clinicians and staff to communicate with each other in a secure, online environment using their computers. Patients can use the service to resolve non-urgent health matters, such as getting prescription refills, scheduling appointments, receiving lab results and requesting referrals. They can also participate in a webVisit consultation, which is an online medical interview that gathers information about their symptoms and relays it to their doctors.

Aida Vega, M.D., UF College of Medicine's division of internal medicine associate chief, is the medical director at Tower Hill Internal Medicine and has been using RelayHealth to process prescription refills and referral requests. Soon she will begin using the webVisit feature.

"My patients have given me a lot of positive feedback about the increased level of access to

me and other clinic staff," Vega said. "I think it's a wonderful system. In fact, I was on vacation the other week and used it to communicate with my nurse and staff, so I could stay in the loop about my patients' needs."

While not a replacement for traditional office visits, Vega said RelayHealth facilitates essential follow-up care that is convenient for her and her patients. Currently, 81 UF physicians have registered to use the online system.

"We feel online care provides a good opportunity to strengthen the doctor-patient relationship," said Kelly Kerr, Faculty Practice Clinics senior director. "Patients can send and receive messages any time from any computer, which decreases time away from work waiting in a doctor's office. Physicians benefit from increased productivity and improved patient satisfaction."

RelayHealth services are free to patients with the exception of the webVisit feature, which is about the same price as a face-to-face office visit and may be covered by the patient's insurance.

Blue Cross and Blue Shield of Florida is sponsoring UF Physicians' introduction to the RelayHealth system.

UF Physicians' patients can access RelayHealth through Shands.org. 



Kim Jamerson is a public relations coordinator for Shands at UF.

New clerkship makes the most of geriatric education

By Denise Trunk

Beginning July 10, all fourth-year medical students will add a new component to their medical education – a two-week clerkship in geriatric medicine.

Coordinated by the Geriatric Clerkship Development Team and led by director John Meuleman, M.D., and Miho Bautista, M.D, in the UF Institute on Aging, the course will expose students to numerous situations in treating and communicating with geriatric patients.

Miho Bautista, a clinical associate professor in the College of Medicine's department of aging and geriatrics, said the new program will make a substantial contribution toward improving geriatric medicine.

Rebecca Beyth, M.D., an associate professor in the College of Medicine's department of geriatrics and aging research and associate director of the Rehabilitation Outcomes Research Center, will, as of July 1, be chief of a new division that will oversee the clerkship, the division of career development and education.

"The students are going to see patients in different clinical settings — whether it is the VA or university private practice, nursing home or Shands Hospital — to make sure they are getting exposure to everything they would see, depending on what they do in their future careers," Beyth said. "Maybe they won't go into geriatrics, but even if they go into internal medicine they are going to have to deal with older patients, and even if they go on to be pediatricians they are going to have to deal with the parents or grandparents of the patients they treat. So they need to have understanding."

During the weekdays the students will make rounds, develop patient assessments, attend selected clinics and participate in interdisciplinary meetings at one of four locations. Two are in Jacksonville, at the Translational Care Unit at Shands and the River Garden Hebrew Home, and two are in Gainesville at Shands Rehab at UF and the Geriatric Evaluation Management Unit at the Malcom Randall Veterans Affairs Medical Center. Each week will end on Friday afternoon with a small group meeting with Bautista in Gainesville at the Geriatric Research, Education and Clinical Center at the VA. The first week's small group will focus on falls and immobility, and the second week will focus on dementia.

Under the direction of Marco Pahor and the Institute on Aging, the team is working to help UF become a nationally recognized presence in the training of future clinicians and researchers in geriatrics and aging.

"Starting with students is a good way to develop a brand name and reputation because they'll go up through the system and say, 'I was trained at UF and there was the geriatric model,'" Beyth said. "The resident and the fellow — they may already be jaded about what they think about geriatrics. So we are focusing on starting with the students before their mind is made up on the subject."

Third-year medical students will continue to encounter geriatric patients as part of their family medicine and ambulatory care clerkship.

Peggy Smith, education coordinator in the division of geriatrics and one of the course developers, said the program's tagline of "Caring, Respect and Communication" sums up the course philosophy.

"The secondary goal of the clerkship is to teach practitioners to communicate with older patients. They are sometimes difficult to communicate with, but they need a lot of care and respect," Smith said. "With this course we need to get all of that integrated so doctors know how to properly communicate with the patient, with the family and the interdisciplinary team." 

"The students are going to see patients in different clinical settings — whether it is the VA or university private practice, nursing home or Shands Hospital — to make sure they are getting exposure to everything they would see, depending on what they do in their future careers."

— Rebecca Beyth, M.D.



PHOTO BY SARAH KIEWEL

Dr. John Meuleman, left, Dr. Rebecca Beyth, Dr. Miho Bautista, Peggy Smith and Michelle Griffin developed the department of aging and geriatric medicine's new mandatory two-week rotation in geriatrics. The first group of fourth-year students will attend the course beginning July 10 in four clinical sites, two in Jacksonville and two in Gainesville.

MPH students give immunization tracking system a boost



Master of Public Health student participants are (from left) Meghan Schuck, Dana Mora, Cynthia DePew, Evelyn King, Kelly Palmer, Travis Johnson, Fahima Sharker and Amanda Lampe.

By Jill Pease

Master of Public Health students in the College of Public Health and Health Professions spent their spring break bringing the state closer to its goal of registering nearly all of Florida's children in the state online immunization database.

The State Health Online Tracking System, or SHOTS, is designed to contain the comprehensive immunization history of children born in Florida since Jan. 1, 2003 to ensure immunizations are up-to-date, to prevent unnecessary duplication of immunizations and to consolidate immunization records from all health-care providers.

The state hopes to meet the objective set by the Healthy People 2010 initiative — a 95 percent enrollment of children ages 6 years and under in SHOTS. However, use of SHOTS by pediatricians has been slow. Only 30 percent of private providers in Florida are accessing and entering patient records into the confidential Web-based system, which was established in 2000.

“Offices may not be participating because the program is new and different and is perceived to be time-consuming, although it actually saves time in the long run and improves patient care,” said Joelisa Sherman, Florida SHOTS regional coordinator.

To address this issue, 11 Master of Public Health students, in partnership with the Suwannee River Area Health Education Center and Florida Department of Health, brought along laptop computers and set up shop in the offices of five area pediatricians during spring break. By week's end, the students had added several hundred new child immunizations records to the SHOTS database.

“Having students in the providers' offices helped to jump-start their participation in SHOTS and allowed students to have actual live contact with the offices,” Sherman said.

The spring break initiative was so successful that plans are under way to continue the UF students' participation during the summer and to expand the collaboration to include graduate students at other state universities, Sherman said. **P**

STOP! Children's Cancer funds new professorship

By Chris Brazda

Twelve-year-old Bonnie Freeman's dying request 25 years ago to spare children the pain and agony of cancer now has more possibilities of being answered thanks to the efforts of an organization created to fulfill her wish.

STOP! Children's Cancer, Inc., founded in 1981 in Gainesville, announced at its 25th anniversary fundraising gala a donation of \$1 million to the University of Florida to establish The STOP! Children's Cancer/Bonnie R. Freeman Professorship for Pediatric Oncology Research in the College of Medicine.

“There's no gift great enough to put an immediate stop to cancer in children,” said Howard Freeman, co-founder of STOP! Children's Cancer Inc. and father of Bonnie, who died of cancer in 1983, “but we feel that

“STOP! Children's Cancer's commitment to research in pediatric cancer is motivation to all of us at UF in all fields and all disciplines.”

— *UF President Bernie Machen*

this research professorship at UF is a huge step in the right direction.”

In its 25 years of fundraising, Stop! Children's Cancer Inc. has provided more than \$1.3 million toward pediatric cancer research projects, research scholars and equipment in the Department of Pediatric Hematology and Oncology in UF's College of Medicine. This latest gift is the first that will create an endowment.

“STOP! Children's Cancer's commitment to research in pediatric cancer is motivation to all of us at UF in all fields and all disciplines,” said UF President Bernie Machen.

The courage of Bonnie Freeman's expressed wishes is clearly evident in this gift.”

Income from the endowment will support a professorship in UF's Department of Pediatrics focusing on translational or laboratory research of childhood cancers.

“The recruitment of a world-class researcher in the area of pediatric leukemias will enable us to develop new treatments for those children, for current therapies are not enough,” said Terrence R. Flotte, M.D., Nemours Eminent Scholar Professor and chair of the department of pediatrics in the College of Medicine. **P**



PHOTO BY SARAH KIEWEL

By April Frawley Birdwell

Doris Rehberg sits, hands folded in her lap, waiting for the doctor to examine her ear. The minutes pass, but Rehberg doesn't mind the wait. She doesn't mind the 18-mile drive to get to the Alachua County Organization for Rural Needs clinic, either.

She knows most everyone who works in the office — they often peek in her room to say hi or coo about her hat, a white number with beige flowers tacked on it — and she adores her doctor, Mimi Balch, M.D., a UF adjunct professor of community health and family medicine and a co-medical director of the clinic.

If it weren't for them, Rehberg doesn't think she would be able to access quality health care at all. The grandmother of eight wouldn't be able to afford it.

"I appreciate the ACORN clinic for taking me in," Rehberg said. "I wouldn't be getting the care I need without it. I think it's wonderful, myself."

Tucked away on a rural highway near Brooker, Fla., about 12 miles north of Gainesville, the clinic provides medical, dental and psychological care to patients, nearly all of whom live at or below federal poverty guidelines.

Since the ACORN clinic opened in 1974, faculty, staff and students from the UF Health Science Center have been there, volunteering their time to help people like Rehberg, who have little access to affordable health care or to the resources available in cities. UF medical and pharmacy students often have clinical rotations there and dental students provide much of the care in the dental clinic, under the supervision of UF College of Dentistry faculty.

But helping out in rural clinics is just one of the ways faculty and students from the colleges of Medicine, Nursing, Pharmacy, Dentistry, Veterinary Medicine and Public Health and Health Professions have contributed to the community in the 50 years since the Health Science Center opened.

There have been community campaigns to spay and neuter feral cats and special camps to help sick children realize they're not alone. But no matter what the cause, HSC faculty and students generally get involved for one reason: to help people.

The Mayo, Fla., clinic

By 1969, there hadn't been a doctor in Lafayette County for 10 years. Back then, patients with serious injuries often died before they could get the care they needed.

Newly hired to head the UF College of Medicine's department of community health and ambulatory care, Richard Reynolds, M.D., didn't recognize anything at the teaching hospital then that reminded him of what his own private practice had been like.

Establishing a clinic in Mayo, Fla., the county seat, would not only help the area's citizens but also give students a taste of life as a doctor, Reynolds thought.

"We ran it 24/7," remembered Reynolds, still a UF courtesy professor and a vice president of Boca Raton Community Hospital. "The (medical and nursing) students lived there ... We saw about 5,000 patients a year."

The program was one of the first community rural health programs HSC leaders launched. College of Medicine founding Dean George T. Harrell had hoped to establish clinics in nearby communities, but several local doctors, worried about their own practices, weren't keen on the idea.

The clinic is still in Mayo, although the rural county now has a few doctors of its own.



The Equal Access Clinic

Patients usually line up outside the door before the Equal Access Clinic opens on Thursday nights. Only 15 patients are seen at the weekly free clinic, which UF medical students established in 1992.

"It's not a huge number of people, but it's something," said Adam Mecca, a first-year medical student and one of the clinic's co-directors. "We have some people who come here all the time. Without it, they wouldn't have anything else."

UF medical students began planning the weekly clinic in 1988. Four years later, with the help of faculty members and financial support from the UF Alumni Association, it opened in a Salvation Army building.

Now housed in the UF Family Practice Medical Group, the clinic also allows first- and second-year medical students the chance to work with patients. Medical students typically do not work with patients until their third year, when they begin their clinical clerkships.

"It's a huge opportunity for us and for the patients," Mecca said.

Operation Catnip

People aren't the only ones in need. Cats and kittens have problems too, namely that there are too many without homes.

In Alachua County alone, there are 36,000 stray and feral cats, said Julie Levy, D.V.M., a UF associate professor of veterinary medicine. Raised without human contact, feral cats often turn wild and form colonies in neighborhoods.



"Many of them will end up homeless or in shelters," Levy said. "That's a lot of suffering."

That's why Levy started Operation Catnip at North Carolina State University in 1994. A trap-neuter-return program, Operation Catnip allows community members to trap neighborhood strays and bring them to a monthly clinic where they are spayed or neutered for free by veterinarian volunteers. This is a humane way to battle the kitty

overpopulation problem, Levy said.

Levy expanded the program to Gainesville in 1998, one year after she joined the UF faculty. So far, she and her colleagues have spayed and neutered 15,000 cats in Gainesville.

"I think this is a nice example of how UF and the residential community can work together to solve a problem," Levy said.

Hands to Love camp

For one weekend each year at Camp Crystal Lake in Keystone Heights, there's no teasing or self-conscious worrying for children born with arm or hand defects.

For one weekend, 30 children can be with kids who are just like them.

Paul Dell, M.D., a UF professor of orthopaedics in the College of Medicine, and two Shands Rehab hand therapists founded the Hands to Love camp in 2001 to give children with congenital hand differences and their families a chance to interact with each other and explore new resources.

"The main focus of the camp is for the kids to get together, meet new friends,



enjoy the camp experience and play together," said Wendy Holt, OTR, a UF lecturer in the College of Public Health and Health Professions. "This gives them a chance to relax."

While there, the children can try out archery with a special device that allows them to shoot a bow and arrow, as well as a ropes course and even water

skiing. The families also have access to psychologists, hand therapists, orthopaedic physicians, nurses and family counselors, Holt said.

Many of the volunteers at the camp are PHHP occupational therapy students, who participate as family pals for the entire weekend. Dental students also come to the camp to teach children proper dental care, Holt said.

For parents, the camp also serves as prime networking ground. But mostly, it's all about fun, Holt said.

"They're amazing kids," Holt said. "To see them climb ropes and do all this stuff; they're competitive, fearless. It is always a weekend to remember."

UF Area Health Education Centers program

The UF Area Health Education Centers program isn't a special clinic or office where community members can go for help. But it is the program that links physicians, health professionals and students from every college in the HSC except veterinary medicine to medically underserved communities from Ocala to Pensacola.

AHEC, a state- and federally funded program, supports programs and clinics in medically underserved areas, in rural and inner-city neighborhoods. Because it is difficult to keep doctors in isolated, rural towns or in poor, urban areas, AHEC also helps recruit and retain doctors there, providing them with continuing medical education and linking them to the HSC and its resources.

"Many of the medically underserved communities are underserved for a reason," said Larry Rooks, an associate professor of community health and family medicine and medical director of the UF AHEC. "AHEC fills the gap and does a lot to get quality health care in these areas."

AHEC, which has programs in 40 states, was started at UF in the early 1990s, Rooks said.

Program leaders are also working on ways to diversify health care and fix future problems. The group established a Boy Scouts of America medical explorers post in Jacksonville, as well as summer camps in other areas. They also formed the Community Health Scholars program, which allows health professions students to spend the summer studying health needs in rural areas. These students work on finding solutions to health-care problems specific to rural areas.

"One thing I think the university needs to be careful of is forgetting we're a little island in a rural sea," Rooks said.

One of the rural programs AHEC supports is the ACORN clinic, arranging for faculty and students from HSC colleges to work there.

The help is needed. Most of the patients who come to the ACORN clinic have nowhere else to go. Many are uninsured, said Chris Hoffman, R.N., coordinator of the ACORN medical clinic. Without insurance, some patients would spend \$500 to \$600 on medicine alone.

"They're struggling to get by," Hoffman said. "They all have their stories to tell."

Patients like Rehberg are just glad someone is listening.

"They're such good doctors," Rehberg said. "Everyone is just so nice." 

UF scientists restore sight to chickens with blinding disease

Neuroscientist Sue Semple-Rowland of the University of Florida's McKnight Brain Institute poses with a type of Rhode Island Red chicken born blind. Rowland has developed a gene therapy that enables these animals to hatch with their sight intact, which proves in principle that a similar treatment can be developed for an incurable form of blindness in children.

By John Pastor

University of Florida scientists have delivered a gene through an eggshell to give sight to a type of chicken normally born blind.

The finding, reported in the online journal *Public Library of Science-Medicine*, proves in principle that a similar treatment can be developed for an incurable form of childhood blindness.

"We were able to restore function to the photoreceptor cells in the retinas of an avian model of a disease that is one of the more common causes of inherited blindness in human infants," said Sue Semple-Rowland, Ph.D., an associate professor of neuroscience with UF's Evelyn F. and William L. McKnight Brain Institute. "The vision capabilities of the treated animals far exceeded our expectations."

The bird — a type of Rhode Island Red chicken — carries a genetic defect that prevents it from producing an enzyme essential for sight. The condition closely models a genetic disease in humans that causes Leber congenital amaurosis type 1, or LCA1. About 2,000 people in the United States are blind because they have a disease that falls in the LCA family.

Semple-Rowland, a College of Medicine faculty

member, has worked since 1986 to first discover the malfunctioning gene, known as GCl, and then to develop a viral therapy to treat it.

"I will always remember the first animal that we successfully treated," said Semple-Rowland, who is also a member of the UF Center for Vision Research and the UF Genetics Institute. "I thought I saw signs that the chick was responding visually to the environment, but I didn't want to believe it. Scientists always doubt what they see — it's intrinsic to how we operate. So I did this simple little test, drawing little dots on a piece of paper. The chick, which was standing on the table, came over to the paper and started pecking at all of them. It was so exciting."

Later, more precise tests showed that of the seven treated chickens, five displayed near-normal visual behavior. Measurement of electrical activity in the retinas of the same five animals showed they responded to light. In comparison, tests on three untreated chickens showed no meaningful responses.

To develop the treatment, UF scientists constructed a virus able to infect photoreceptors, delivering a normal copy of the GCl gene to these cells. Using a very fine

glass needle, they injected the viral vector into the developing nervous system of a chicken embryo through a tiny hole in the eggshell. The shell was resealed and the egg was incubated to hatching to produce a live chick.

"The process sounds straightforward but it really isn't," Semple-Rowland said. "It took quite a long time to build the vector, develop the injection procedure and figure out how to hatch the eggs. By doing the injection early during development, we actually treat the cells before they become photoreceptors."

Work remains to refine the viral delivery system that transfers the healthy genes to the photoreceptor cells. In addition, solutions have to be found to make the treatment long-lasting — scientists have restored sight and slowed degeneration, but the retinal cells still degenerate.

"We can do amazing things in animal models," Semple-Rowland said, "but this work can't be done quickly. That's the hardest thing — knowing there are people who need these treatments now. But we work as fast as we can. You'll see the first treatments for some of these genetic eye diseases soon, especially after the groundwork for an approved therapy is laid and the therapy works." **P**

Cutting calories slightly can reduce aging damage

By Denise Trunk

A lifelong habit of trimming just a few calories from the daily diet can do more than slim the waistline — a new study shows it may help lessen the effects of aging.

Scientists from UF's Institute on Aging have found that eating a little less food and exercising a little more over a lifespan can reduce or even reverse aging-related cell and organ damage in rats. The discovery, described in the journal *Antioxidants and Redox Signaling*, builds on recent research in animals and humans that has shown a more drastic 20 percent to 40 percent cut in calories slows aging damage. The UF findings indicate even small reductions in calories could have big effects on health and shed light on the molecular process responsible for the phenomenon, which until now has been poorly understood.

"This finding suggests that even slight moderation in intake of calories and a moderate exercise program is beneficial to a key organ such as the liver, which shows significant signs of dysfunction in the aging process," said Christiaan Leeuwenburgh, Ph.D., an associate professor of aging and geriatric research at the UF College of Medicine and the

paper's senior author.

UF scientists found that feeding rats just 8 percent fewer calories a day and moderately increasing the animals' activity extended their average lifespan and significantly overturned the negative effects of cellular aging on liver function and overall health.

An 8 percent reduction is the equivalent of a few hundred calories in an average human diet and moderate exercise is equivalent to taking a short walk.

To reveal the workings of the body's chemical climate when aging-related damage happens, UF researchers tracked levels of biomarkers — chemicals and molecules present in the liver — in groups of rats. The liver, a crucial organ for maintaining good health during aging, cleans the blood and helps regulate the body's immune system. The researchers also plan to assess the same biomarkers in a study of rats' hearts, muscle and brains.

The research team was surprised to find one of the biomarkers, RNA, which is important for coding DNA and for protein synthesis, is more quickly damaged by aging than the more frequently studied DNA. RNA damage, therefore, could be an excellent early signal to



CHRISTIAAN LEEUWENBURGH

indicate the onset of aging, researchers say.

"Because it is more sensitive to oxidative stress, RNA can be useful as an early marker of oxidative damage and even aging," said Arnold Y. Seo, a doctoral student in UF's Institute on Aging. Seo authored the report along with Tim Hofer, Ph.D., an Institute on Aging research associate. **P**

Don't ask, might not think to tell: Communication key to preventing risky drug interactions

By Tracy Brown Wright

Older women who regularly mix prescription, over-the-counter and herbal medications are risking their health, UF nursing researchers warn.

Many also don't think to tell their health-care providers about the nonprescription medicines they are taking — and too often practitioners fail to ask. That lack of communication is especially alarming, the researchers wrote recently in *Geriatric Nursing*.

"Many of these older women do not consider over-the-counter and herbal medications 'real drugs' and therefore don't report them," said Saunjo Yoon, Ph.D., R.N., an assistant professor at UF's College of Nursing and the study's principal investigator. "However, it is clear that many health-care providers are not following through to learn their patients' complete medication history."

Recent research has shown that nearly half of people aged 65 years or older take five or more prescribed, over-the-counter and herbal medications, and 12 percent take at least 10 medications. Yet little research has focused on drug-drug interactions among these three types of medications in elderly people, who are more susceptible to their harmful effects.



Using a Web-based pharmaceutical program, Yoon and co-investigator Susan Schaffer, Ph.D., A.R.N.P., a clinical assistant professor, studied 58 older women who had reported taking at least one herbal product while using at least one over-the-counter or prescribed drug. The study's participants were a subsample of 143 women from previous published studies. Seventy-four percent of the study's participants were in danger of experiencing adverse effects from a moderate- or high-risk drug interaction. Calcium supplements or over-the-counter pain relievers like ibuprofen, when taken in combination with certain prescription medications, were among the most common culprits.

"It's so important for health-care providers to take a careful medication history to evaluate all prescribed, over-the-counter and herbal drugs to monitor interactions in older women, particularly because these women have been shown to take a number of different types of medications," Yoon said. "Although it is difficult to determine the impact of the drug interactions for any given individual, prevention of possible interaction is the safest practice." **P**

The little research lab that could

By April Frawley Birdwell

Nasser Chegini's eyes twinkle as he points to the photos tacked on the wall of his lab. There he is in most of the snapshots, posing with postdoctoral fellows, medical students, residents and collaborators who have worked with him in his lab over the past 20 years.

The higher the photo on the wall, the less silver there is in Chegini's dark hair, but the twinkle is still there in the UF researcher's green eyes. You might call it pride.

"Each individual postdoc, resident and student has contributed to the overall success of the research group," said Chegini, Ph.D., a UF professor of obstetrics and gynecology. "By having their picture in the lab, I do not forget them, and at the same time, it reminds

Fibroids affect more than 70 percent of women at some point in their lives, and endometriosis often leads to infertility, but unlike cancer or AIDS, these conditions don't kill women, meaning they've typically been a low priority for researchers and funding agencies. Because endometriosis and fibroids only affect humans, there also is no animal model researchers can study.

Chegini hasn't let that stop him though.

"We're using various approaches to identify the differences in the molecular environments of endometriosis and fibroids as compared with their normal tissue counterparts," he said. "Fibroids are benign tumors but they account for one-third of all



NASSER CHEGINI

Chegini and the researchers in his lab are focused on uncovering the molecular roots of endometriosis and benign uterine tumors, commonly called fibroids.

me of their success in their own right, which is most important to me."

But as proud as he is of his students, there's no doubt the real star of Chegini's lab is the research. For years, Chegini has received grants for work in areas of women's health that are often overlooked. He doesn't study AIDS or obesity — conditions that receive significantly more grant funding from the National Institutes of Health. Instead, Chegini and the researchers in his lab are focused on uncovering the molecular roots of endometriosis and benign uterine tumors, commonly called fibroids.

hysterectomies performed in the United States annually."

Much of his work has centered on understanding how inflammatory and immune-related molecules affect these conditions. Among them is a protein produced in the reproductive tract called transforming growth factor beta. Too much of this protein can lead to tissue fibrosis. Chegini and the researchers in his lab studied genes regulated and expressed by this protein, uncovering the regulatory properties it has on benign tumors in the uterus. The National Institute of Child Health and Development

recently recognized this discovery as an important scientific advancement in women's health.

Understanding what causes these abnormalities may help doctors find ways to stop fibroids from growing, said Qun Pan, M.D., a postdoctoral fellow who works with Chegini.

They're juggling several studies, among them, a clinical trial testing to see if a common antibiotic can help with abnormal uterine bleeding in contraceptive users. The researchers also are studying why black women are more apt to develop fibroids than white women.

"We're at the forefront of research in the field," said Xiaoping Luo, M.D., one of the postdoctoral fellows who works in Chegini's lab.

Chegini works closely with UF clinicians, obtaining specimens from them after hysterectomies or other procedures. He's actually been working with one of them since before either came to UF. Chegini and Stan Williams, M.D., a UF professor of obstetrics and gynecology and chief of the department's reproductive

endocrinology and infertility division, first met when both were at the University of Louisville more than 20 years ago. They have been collaborating since then.

These diseases are important to study because there is currently no effective medical therapy for benign tumors, which lead to about one-third of all hysterectomies, or endometriosis, which results in fertility problems in about half of the women who develop it, Williams said. Once researchers like Chegini have answers, therapies can be developed to solve these problems in patients, he added.

Chegini's work with fellows and students also has proved to be another way to further research into these disorders.

"Dr. Chegini has probably had a dozen or more postdocs get training here who are now scattered all around the world now doing their own research," Williams said. "(This research) has been extended because he's training them in the same area.

"He goes out of his way to help each and every one of them." 

Elders' ability to walk predicts future health outcomes

By Denise Trunk

As people age into their 70s, their ability to walk a quarter mile becomes an important predictor of overall health and even how long they might live, according to study findings published in the *Journal of the American Medical Association*.

Of nearly 3,000 healthy seniors studied, those who were able to complete a quarter-mile extended walking test were three times as likely to live longer and were less likely to suffer from cardiovascular disease and physical infirmity as they aged, said Marco Pahor, M.D., director of UF's Institute on Aging and the multi-institutional study's co-principal investigator at its Memphis site.

Decreasing mobility, along with lack of muscle strength and a decline in aerobic ability, are common aspects of aging that can diminish quality of life, Pahor said. Understanding the mechanisms of how people lose mobility can keep people functioning independently longer, he added.

"This shows the predictive value of a simple performance task," Pahor said. "This will help us develop a testable standard for fitness, which is the first step toward creating a strategy for maintaining independence in older people."

Existing means of assessing aerobic fitness, such as



an exercise treadmill test, are more arduous than walking and are difficult to apply to elders because old age causes a decline in physical abilities. The study supports the use of the extended walking test as a baseline for human fitness for elders, Pahor said.

"The most promising intervention is regular physical activity; those who do more are more likely to live longer and be healthier," said Pahor, a professor and chairman of the College of Medicine's department

of aging and geriatric research. "This research is one step toward developing an intervention."

Researchers from the University of Pittsburgh, Wake Forest University School of Medicine, the University of California San Francisco, the University of Tennessee and the National Institutes of Health's National Institute on Aging collaborated on the study, which was funded by the National Institute on Aging. 

How ancient whales lost their legs, got sleek and conquered the oceans

When ancient whales finally parted company with the last remnants of their legs about 35 million years ago, a relatively sudden genetic event may have crowned an eons-long shrinking process.

An international group of scientists, including UF Genetics Institute member Martin Cohn, Ph.D., a developmental biologist and associate professor with the departments of zoology and anatomy and cell biology, integrated data from contemporary spotted dolphins and fossils of ancient whales to pinpoint in time the genetic changes that caused whales, dolphins and porpoises to lose their hind limbs.

"We can see from fossils that whales clearly lived on land — they actually share a common ancestor with hippos, camels and deer," Cohn said. "Their transition to an aquatic lifestyle occurred long before they eliminated their hind limbs. During the transition, their limbs became smaller, but they kept the same number and arrangement of hind limb bones as their terrestrial ancestors."

In the *Proceedings of the National Academy of Sciences*, scientists say the gradual shrinkage of the whales' hind limbs over 15 million years was the result of slowly accumulated genetic changes that influenced the size of the limbs and that these changes happened sometime late in development, during the fetal period.

However, the actual loss of the hind limb occurred much further along in the evolutionary process, when a drastic change occurred to inactivate a gene called Sonic hedgehog, which is essential for limb development.

— John Pastor

Certain blood pressure-lowering drugs reduce diabetes risk in Hispanics

The combination of drugs traditionally used to control blood pressure might not be ideal for Hispanic patients, University of Florida researchers warn.

While beta-blockers and diuretics have long been used to treat patients with hypertension, Hispanic patients appear to benefit from a tailor-made strategy that includes other medications, particularly calcium antagonists and angiotensin-converting, or ACE, inhibitors.

Not only does the approach effectively lower blood pressure in many Hispanic patients, it has an extra benefit: It dramatically cuts their risk of developing diabetes. UF researchers reported the findings in the May issue of the *American Heart Journal*.

"We can successfully lower blood pressure in Hispanic patients with heart disease with medications that include beta-blockers like atenolol or calcium antagonists like verapamil plus the ACE inhibitor trandolapril, especially when compared with non-Hispanic patients," said Rhonda Cooper-DeHoff, Pharm.D., a research assistant professor and associate director of the clinical research program in cardiovascular medicine at UF's College of Medicine. "Lower blood pressure translated into fewer heart attacks and fewer strokes, which is very important for reducing cardiovascular risk in both Hispanics and non-Hispanics.

"The use of trandolapril and verapamil, however, also significantly reduced the risk of developing diabetes in Hispanic patients," she said.

UF researchers tracked more than 22,500 patients from 14 countries for two to five years. The study enrolled more Hispanic patients than any other hypertension trial to date — about 8,000 — and included participants from the mainland United States, Puerto Rico, Cuba, Mexico, Canada, Guatemala, Panama and El Salvador.

Overall, Hispanic patients had a 19 percent increased risk of developing diabetes during the study's follow-up period, but those in the verapamil group were actually 15 percent less likely to develop diabetes, and the addition of trandolapril to verapamil was linked to the decreased risk.

— Melanie Fridl Ross

Hurricanes' latent hazards tracked by poison centers

By Patricia Bates McGhee

With the June 1 start of this year's hurricane season, Florida's residents are preparing for the all-too-familiar havoc the storms can wreak. But hurricanes cause more than flooding, high winds and power outages — they also spawn public health hazards that often aren't evident until days after winds die and storm waters recede.

Now, after fine-tuning it for the past two hurricane seasons, a UF toxicologist and state Department of Health officials have pioneered a real-time system for monitoring storm-related public health hazards, including carbon monoxide inhalation and contaminated food and water supplies.

Using electronic data from Florida's Poison Information Center Network hotline, the experts designed a surveillance system to identify public health threats and make this information readily available over the Web to state health department epidemiologists. Florida health officials, for example, were able to track 200 percent to 300 percent spikes in carbon monoxide and gasoline poisonings related to generator use after Hurricanes Katrina and Wilma made landfall last year in Florida, according to data recently published in the Centers for Disease Control and Prevention's *Morbidity and Mortality Weekly Report*. The CDC adopted the Florida model and used data provided by the American Association of Poison Control Centers to monitor other hurricane-prone coastal areas, including Gulf Coast regions in the aftermath of Katrina.

"The primary benefit is that you're not waiting and reporting on things that happened three days ago — you're seeing something and interacting in real time to stop it," said study co-author Jay Schauben, Pharm.D., a UF clinical professor of emergency medicine and pharmacy and director of the Florida Poison Information Center-Jacksonville. "The quicker you can identify a problem, the faster you can focus your attention, the more individuals you might spare doing the wrong thing which gets them into trouble, health-wise. And I think that's the concept here."

For example, higher-than-normal reports of gastrointestinal distress in a small geographic area may indicate problems with a municipal water supply, allowing health officials to warn residents to switch to bottled water until the local water source is cleared.

Florida Department of Health officials started reviewing data collected by the Florida Poison Information Center Network during the 2004 hurricane season. In 2005 the agencies began monitoring poison control center records daily to see if any were connected to storm-related health hazards.

"We monitored these hazards using a sophisticated,



JAY SCHAUBEN

Web-based data-gathering system we already had in place here that was originally designed to characterize epidemiological information — the incidence and spread of disease — for our statewide poison control centers," Schauben said. "Now this same system provides valuable real-time information and surveillance to identify public health threats left in the wake of hurricanes."

Created by the Florida Legislature in 1989, the network includes three poison control centers in Miami, Tampa and Jacksonville. Health professionals and the public can call the network via the nationwide 24-hour, toll-free telephone "POISON HELP" hotline, 1-800-222-1222.

Poison information specialists at each center gather exposure and substance information from callers and enter it into a local database that is then uploaded within seconds to a statewide database, housed at the Jacksonville site.

During the 2005 hurricane season, state health officials monitored exposure to carbon monoxide, hydrocarbon fuels, batteries, fire, matches and explosives, stings, snake bites, contaminated water and food poisoning. They compared exposures from 30 days before and up to one week after a hurricane's landfall.

The system provides a collaborative, online reporting system, displaying surveillance graphs and Geographic Information Systems mapping data with hour-to-hour updates that can be accessed in the office or on a laptop in a car, in an airport or in the field. Health officials rely on spikes in the data to help identify health-hazard incidences.

"Data spikes provide clues and allow us to zoom in on something exactly when it's happening in a certain

location," said Schauben, adding that the system allows users to track patients' names and addresses and then alert the nearest local health department of the incident.

"For example, we'll tell the local health department that we've had five carbon monoxide cases in a certain area in the past 24 hours and ask them to get out there and educate the people about generators," Schauben said.

Operating generators in enclosed or poorly ventilated areas can lead to carbon monoxide poisoning. Twenty-eight incidents of carbon monoxide exposure were reported to the network in the two days after Hurricane Katrina made landfall in Florida.

"A couple of weeks after a hurricane hits, people start running out of gas because of gas shortages," Schauben added. "When we saw data spikes for inhalation of gasoline, we stepped up our messages about using proper siphoning equipment."

Department of Health epidemiologist Robyn Kay said that using a real-time, pre-existing sentinel surveillance system increases state health officials' ability to detect public health hazards and prevent deaths.

"Still, during emergencies and times of distress it's just as important for Floridians to think with a clear mind about how to approach each situation as it is for them to have emergency plans to help ensure their safety before, during and after the storm," she said.

Schauben said he sees a future for the system in other states. "Poison control centers are the only entities in the country that have an infrastructure to share data between 64 centers (the number of centers in the United States) in real time," he said. "We detect it, we see it and we move on it." **P**

COLLEGE OF DENTISTRY

ROGER B. FILLINGIM,

Ph.D., an associate professor of community dentistry and behavioral science, has been awarded a UF Research Foundation Professorship Award. The three-year professorship recognizes Fillingim for his distinguished record of research and scholarship, which is expected to lead to continued distinction in the field of pain research. The professorship term is 2006 through 2008, and includes a \$5,000 salary supplement for each of those years as well as a \$3,000 one-time allocation in support of his research program.



Fillingim

BARBARA HASTIE, Ph.D., a

research assistant professor of community dentistry and behavioral science, received a five-year, \$805,194 National Institutes of Health grant to study ethnic differences and genetic factors in acute postoperative pain and analgesic response. In addition, Hastie is the recipient of the 2006 "Future Leaders in Pain Management" small grant award from the American Pain Society. This award is given to three researchers from around the country and is aimed to advance pain research. Hastie will investigate ethnic differences in pain and side effects using the Third Molar model.



Hastie

UF dental students **MANAV MALIK** and **MAGGIE M. NOVY** have been awarded scholarships from the Thomas P. Hinman Dental Society. The awards were presented at a special luncheon held recently during the 94th Hinman Dental Meeting in Atlanta.

Student recipients of the scholarships are known as "Hinman Scholars." Malik and Novy are members of the American Dental Association and rank among the top 10 percent of junior dental students from 37 Southeastern colleges and universities.

COLLEGE OF MEDICINE

PARKER GIBBS, M.D.,

an associate professor of orthopaedic oncology, and surgeon **THOMAS BEAVER,** M.D., an assistant professor in surgery, were honored as "Doctors of the Day" April 5 by the Florida Legislature as part of Gator Day 2006 at the Florida Capitol. The Florida Medical Association created the honorary Doctors of the Day program to provide medical care for legislators and their staffs. It is an honorary, one-day position; however, the doctors chosen could be called upon to provide medical care if necessary.



Gibbs



Beaver

MARK GOLD, M.D., a

distinguished professor and chief of addiction medicine with UF's McKnight Brain Institute, received the Nelson J. Bradley lifetime achievement award from the National Association of Addiction Treatment Providers.



Gold

"As a person who has spent 30 years in addiction medicine, receiving an award from the nation's leading treatment professionals and from representatives of centers such as the Betty Ford Center is a great honor," Gold said. "It's particularly exciting and gratifying that recovery professionals feel my research has been valuable and has helped make a difference in how they care for patients."

Gold is recognized for changing the medical field's understanding of how opiate drugs and also cocaine hijack the human brain. His work has led to new treatments for addicts, tests for drug intoxication and understanding of how heroin, other opiates and cocaine cause dependence and withdrawal. His research has also shed light on the dangers of secondhand exposure to smoke and other drugs.

A faculty member in the psychiatry department since 1990, Gold follows in a long line of innovators who have received the prestigious award since it was first issued in 1983.

\$1 million gift creates College of Pharmacy's first graduate endowment

The UF College of Pharmacy has received a welcome dose of support to create its first-ever graduate endowment.

The A.J. Spiegel Foundation has pledged \$1 million to create the Dr. Allen J. Spiegel Graduate Endowment in Pharmaceutical Research. The fund will support graduate students in the Department of Pharmaceutics' Ph.D. program.

Allen J. Spiegel, a UF alumnus and member of the College of Pharmacy's National Advisory Board since 2000, is a trustee of the foundation. He said he decided the endowment was the best way to help fund the college's graduate programs after discussions with College of Pharmacy Dean William H. Riffée and Executive Associate Dean Bill Millard.

"We need a good graduate research program," Spiegel said, "and in order to have one, we need more support. Hopefully this will provide the support necessary to aid those pursuing a Ph.D. in pharmacy."

Spiegel, who previously donated \$100,000 to the college to create the A.J. Spiegel Graduate Fellowship, earned his Ph.D. in pharmacy from UF in 1957 and retired as senior director of international patents

operations from Pfizer Inc., where he worked for 43 years.

Millard said the college needs this type of private funding for translational research, where scientists first study disease at a molecular or cellular level and later translate their findings to clinical applications for patients. Also benefiting from the gift is research in pharmacogenetics, the study of how genes influence drug response.

"Dr. Spiegel's endowment will now allow the College of Pharmacy to expand its graduate training program in both translational and pharmacogenetics research by providing additional graduate student lines and support in each of these research areas," Millard said. "We are indebted to Dr. Spiegel's generosity and support of our college."

The gift is eligible for matching funds from the State of Florida Major Gift Trust Fund and will count toward the Faculty Challenge Initiative. The initiative, which was announced last year by UF President Bernie Machen, aims to raise \$150 million to meet the demands of educating Florida's growing population and make UF one of the nation's premier research universities.



PHOTO BY JEFF KNEE

Dean William Riffée, left, and Allen J. Spiegel together after the A.J. Spiegel Foundation pledged \$1 million to create the Dr. Allen J. Spiegel Graduate Endowment in Pharmaceutical Research.

DISTINCTIONS

JACKSONVILLE

JAMES CHINGOS, M.D., is the new president of the Association of Community Cancer Centers, the premier education and advocacy organization for the multidisciplinary cancer care team. He is an associate professor and division chief of the division of hematology/oncology at the College of Medicine–Jacksonville and an associate director of the UF Shands Cancer Center. He also serves as interim program director of the medical oncology fellowship program. The ACCC's membership comprises more than 650 hospital cancer programs and oncology private practices and includes all members of the cancer care team. The organization seeks to promote quality cancer care for patients and communities by helping oncology professionals adapt to complex clinical, regulatory and legislative changes.



Chingos

ERIC CONDE, M.S.A., has joined the UF staff as assistant dean for administrative affairs — a new position in the Office of the Senior Associate Dean/Associate Vice President for Health Affairs at the College of Medicine–Jacksonville.



Conde

With his more than 14 years of experience in health-care administration, he will be responsible for a wide range of complex administrative, operational and governance tasks. Conde comes to UF after having served for 20 years in the U. S. Navy. His last active duty assignment was as deputy director for health

affairs in the office of the Honorable William A. Navas Jr., assistant secretary of the Navy for manpower and reserve affairs. He also served as a staff assistant and adviser for all health-related issues, policies and programs within the Office of the Secretary of the Navy.

DAVID A. HARMON, M.D., an assistant professor of pediatrics in the UF College of Medicine–Jacksonville, has been named the medical foster care statewide physician consultant for Children's Medical Services. A program of the Florida Department of Health, CMS serves children whose serious or chronic physical, developmental, behavioral or emotional conditions require extensive preventive and maintenance care beyond that required by typically healthy children. Harmon — currently medical director and primary care physician for Kids 'N Care in Jacksonville, Florida's first medical home for children in foster care — has also served as the Jacksonville MFC medical director since 2002.



Harmon

Gator Launch program is designed to enhance the career development of UF students of diverse backgrounds.

BONNIE SACHS, a doctoral student in the department of clinical and health psychology, received the Behavioral Science Student Fellowship from the Epilepsy Foundation. She will receive \$3,000 to support her research on the effects of age and neurosurgical site on postoperative seizure and cognitive outcome.



Sachs

LINDSEY KIRSCH DARROW, SARAH MCCANN, KIMBERLY MILLER and UTAKA SPRINGER, graduate students in the department of clinical and health psychology, have been accepted into the 2006 Vivian Smith Advanced Studies Institute of the International Neuropsychological Society. The monthlong program will be held in Greece this summer. Russell Bauer, Ph.D., a professor in the department of clinical and health psychology, will serve as one of the institute's instructors.

PUBLIC HEALTH AND HEALTH PROFESSIONS

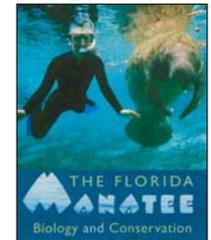
BRIAN DODGE, Ph.D., an assistant professor in public health programs, received the 2005-06 Excellence in Mentoring Award from the UF Gator Launch program. Dodge was honored for his ongoing work with undergraduate student Omar Martinez, who translated, from English to Spanish, all materials associated with a study of sexuality education in Florida public schools. The



Dodge

COLLEGE OF VETERINARY MEDICINE

ROGER REEP, Ph.D., a professor of neuroscience, and Bob Bonde, a biologist with the U.S. Geological Survey's Sirenia Project, have co-authored a book on manatee biology and conservation geared toward professionals and lay people interested in the unique and endangered marine mammal.



Reep and Bonde, who also is pursuing his doctoral degree at the UF veterinary college, have collectively devoted 45 years to manatee research. The result was "The Florida Manatee, Biology and Conservation," recently published by University Press of Florida.

Reep has published numerous papers and lectured on the organization and evolution of mammalian nervous systems. He was lead organizer for the First International Manatee and Dugong Research Conference in 1994 and for the Florida Marine Mammal Health Conferences in 2002 and 2005. Bonde has published many scientific papers on manatee genetics and mortality and on his aerial surveys, radio tracking and observations of manatees in their natural habitat.



SARAH CAREY

A story about Yankee, a dog that received successful surgery to remove a bamboo barbecue skewer from its heart thanks to UF human and animal doctors, took top honors in the printed tools category of the 2006 Image Awards competition sponsored by the Gainesville chapter of the Florida Public Relations Association.

The story, written by **SARAH CAREY, M.A., A.P.R.**, the College of Veterinary Medicine's director of public relations, received a first place Image Award in the news release subcategory and a Grand Image, or grand prize, in the printed tools category. Awards were presented April 26 at the annual FPRA Image Awards banquet.

Yankee, a 6-year-old yellow Labrador retriever owned by the Stazzone family of Satellite Beach, continues to recuperate well from her ordeal.

Know someone who has earned a distinction? Please let us know.
E-mail dtrunk@ufl.edu

Vet student develops computer-based study tool in a flash

By Sarah Carey

News flash: At age 33, Mary Gardner, a sophomore veterinary student, is fast becoming an entrepreneur, marketing a computer-driven flash card study program to students not just at UF, but all over the country.

The program enables students to create flash cards on their personal computers. They can organize the cards by subject, attach pictures, test themselves, print out cards on paper and swap cards between friends.

For example, animal science majors might quiz themselves with cards that ask questions like “What is a nutrient?” “What are the six classes of nutrients?” or “What type of cattle is this?”

“If you have a PDA, you can put the cards on the PDA version of the software to study away from your PC,” Gardner said.

This may not exactly be news to members of the class of 2008, who first heard about Gardner’s program a few weeks after starting veterinary school in the fall of 2004. At that time, Gardner had reserved a classroom after hours to present a demonstration of the product she developed with help from her father, a computer programmer, and her brother, a Webmaster.

“The pitch was, we have to memorize all these facts, so let’s split up the work,” Gardner said. “Everyone takes a chapter and we swap the cards.”

Although only about 20 of her classmates wound up buying the \$29.95 software package, called PC Flashcards, nearly the entire class of 2009 purchased the program, Gardner said.

“That’s because my class by then had done all the work and created so many flash cards, over 20,000 to be exact, that were then automatically available through our Web site to anyone else who purchased the program,” Gardner said.

One of PC Flashcards’ key selling points is that a portion of the proceeds from each sale goes to a student club, class or organization the buyer designates.

“My class has earned more than \$500 just from sales,” Gardner said. “It’s been our best fundraising event to date. There is no overhead and no inventory, and we’ve learned while we made the cards.”

Prior to being accepted into veterinary school, Gardner traveled the world as a software training and design expert employed by the global firm Ecometry, a company that specializes in creating software for mail, phone and Web-oriented businesses such as Nordstrom, Nine West, Ross-Simons, Coach, Lego and other household names.

But after a few too many red-eye flights and fluorescent lights, as she puts it, Gardner burned out on corporate life and decided her true dream was to attend veterinary school.

“The flash card business all started because before I was able to apply for veterinary school, I had to complete my prerequisites, which naturally involved a lot of study,” Gardner said. “I was making handwritten flash cards and I’d have stacks of them in my house. I thought, this is ridiculous, there needs to be a software product to automate all this.”



PHOTO BY SARAH CAREY

Mary Gardner with her personal handheld computer outside the Veterinary Academic Building.

So Gardner drew up specs and conceptualized the product “on paper.” Then she asked her father if he would write the software.

“Within a week, he had a prototype,” she said. “Now I take care of customer support, marketing and product design, while my father programs the changes and my brother takes care of the Web site. It works out really well.”

Students from six other veterinary schools, including those in Hawaii, Puerto Rico and even Canada, are now using the program.

“The program is not just for college students,” Gardner said. “We have real estate agents, pilots and high school students using the program. It’s a great feeling to know that so many other people have found the product helpful in their studies.”

Gardner’s goal is to make \$1 million by the time she’s 40 to help fund the cost of starting her own small animal clinic.

For more information about PC Flashcards, go to www.pcflashcards.com. 



PHOTO BY SARAH KIEWEL

John Williams, a veterinary research assistant at the University of Florida's Veterinary Medical Center, exercises a Thoroughbred horse named Baby Frank on a treadmill May 24. The VMC is conducting a series of drug clearance studies for the UF Racing Laboratory using the treadmill to keep the horses conditioned and also to assess the effectiveness of certain drugs used in the racing industry.



PHOTO BY SARAH KIEWEL

Gainesville Fire Rescue's hazardous materials team conducted a mock disaster drill for approximately 50 College of Medicine students in May. The drill took place in the HPNP Plaza. In a scenario of a mock gas attack on a crowded sports stadium, the students role-played as victims and triage specialists.

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www.news.health.ufl.edu



PHOTO BY SARAH KIEWEL

Jamie Woodcock (left), a second-year medical student, evaluates a standardized patient's condition at the College of Medicine's Harrell Professional Development and Assessment Center. The standardized patient Frances Harrell is an actor who imitates a specific medical condition to test the student's examination skills. Instructors monitor each student's performance on a computer screen in another room.

UF Health Science
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