

>>>PAGE 12

Education ANYWHERE



Caleb's
Story

5

The first
graduate

9

Risky
eating

17

On the Cover

The UF College of Pharmacy is known nationally as a leader in distance education, but other HSC colleges, including Nursing and Public Health and Health Professions, are making their own dent in distance learning, too.

Photo by Jesse S. Jones



Table of Contents

- 3 **Post it**
- 4 **Patient Care:** New Pediatric Emergency Room
- 5 **Patient Care:** Caleb's story
- 6 **Patient Care:** The ketogenic diet
- 7 **Patient Care:** Rory's recovery
- 8 **Education:** Pharmacy technician training
- 9 **(Extra)ordinary Person:** Yan Ren
- 10 **Around the HSC:** Gator CSA
- 11 **Around the HSC:** National Public Health Week
- 12 **Cover Story:** Education anywhere
- 16 **Research:** How schools can prevent drug use
- 17 **Research:** The riskiest food pathogens
- 18 **Research:** Biomarker for lung cancer
- 19 **Research:** Hazards of hookah
- 20 **Jacksonville:** Bacteria in space
- 21 **Distinctions**
- 23 **Profile:** Robert Cook

UP FRONT

A center in *motion*



PHOTO BY MARIA BELEN FARIAS

“My sister Janet Reno has Parkinson’s. My younger brother has Parkinson’s. I have essential tremor. Sometimes we would all shake in unison.” So said Maggy Hurchalla, a former Martin County, Fla., commissioner who talked about her family’s experience with Parkinson’s disease at the opening of the new Center for Movement Disorders and Neurorestoration in April. With her sister by her side, Reno, a former U.S. attorney general who announced she had Parkinson’s in 1995, was the first patient to tour UF’s new center, a destination where people with Parkinson’s disease, dystonia, tremor, movement problems and ataxia have access to the latest research-based care and the opportunity to shape the therapies of tomorrow. “The concept may sound simple, but it doesn’t exist anywhere else,” said Michael Okun, M.D., one of the co-directors of the center. “The idea is the patient comes to one place and 10 or more disciplines revolve around the patient, offering the best care and access to cutting-edge research. When the patients tell us their issues and problems, we look at that, and it often provides us with new research directions.”

— John Pastor



DENTISTRY'S GOT TALENT

In April, College of Dentistry students took their turns showcasing their talents and, in turn, raising a little cash for a worthy cause. The College of Dentistry's Dental Ambassadors' Annual Acid Etch Talent Show was the most successful ever, raising \$1,650 to benefit Smile Train, a nonprofit organization dedicated to helping children born with cleft lip and palate. To view more photos from the event, visit the college's Facebook page at www.facebook.com/UFDentistry. To learn more about Smile Train, visit support.smiletrain.org.

EAT, DRINK (COFFEE) AND BE MERRY

Well, it's finally happened. The new Starbucks has opened its doors at the entrance to the Communicore Building. Enjoy all your favorite beverages as well as selections from their breakfast and lunch menus, including an egg white, spinach and feta wrap and a roasted vegetable panini, among other tasty treats. By the time you read this, you should be able to dine on Chinese fare at the new Panda Express for lunch as well. Panda favorites include orange chicken and Beijing beef. Catering services also will be available. Both Starbucks and Panda Express are open daily. For complete hours, visit www.gatordining.com and www.classicarecatering.com for catering orders or call 352-392-3463.



INJURIES DON'T ALWAYS MAKE APPOINTMENTS

There is now a place to go for the sprains, strains, fractures and other orthopedic injuries that happen after 5 p.m. ORTHOcare at the Orthopaedic and Sports Management Institute will offer urgent care from 5 to 9 p.m. on weeknights and from 9 a.m. to 2 p.m. on Saturdays. A team of fellowship-trained musculoskeletal physicians and physician assistants will provide high-quality and convenient care, with X-ray and casting services available. "ORTHOcare After Hours is unique because it strictly deals with muscle, bone and joint conditions and injuries, and it's the only offering of its kind in the region," said Les Jebson, executive director of the Orthopaedics and Sports Management Institute. ORTHOcare will be located within the institute at 3450 Hull Road in Gainesville. For more information, please call 352-273-7001 or visit www.ortho.ufl.edu.



THE SECRETS OF FRANKENSTEIN

Frankenstein is here. And he wants to teach you a lesson. From now until June 17, the Health Science Center Library is playing host to the National Library of Medicine exhibit "Frankenstein: Penetrating the Secrets of Nature." This traveling exhibit also will be accompanied by a speaker and film series. The exhibit focuses on the historical context of "Frankenstein," how it has affected popular culture, and how its story and characters frame current discussions of biomedical advances and ethics. In keeping with these themes, the speakers and films presented will address literary, cultural and scientific issues related to the novel. Events will take place throughout May and June, including a screening of "Frankenstein" at 5 p.m. May 26 in the HPNP Complex, Room G-101. All events are free and open to the public. For a full list of events and more information, please visit guides.uflib.ufl.edu/frankenstein.

Lions, tigers and bears! Oh my!



PHOTO BY MARIA BELEN FARIAS

By Jamie Harrison

Dorothy, Toto and the rest of “The Wizard of Oz” gang visited some special munchkins at Shands Hospital for Children in April. Every year, the College of Medicine’s White Coat Company produces a play to perform throughout the Gainesville community, including for children in the hospital.

“I think in some ways it’s giving the kids a break from their hospital rooms, maybe even giving them a break from focusing on their illnesses,” said Melissa Kalbhenn, a medical student and play director. “Some of the pediatric patients in Shands spend weeks or months in the hospital.”

This year, the White Coat Company took a trip to Oz. The patients and their parents giggled and sang along as the characters made their way down the yellow brick road.

The play is just as much fun for the members of the White Coat Company as it is for patients, too. Kalbhenn played the part of Aunt Em, while co-director Sara Rodriguez took the role of the Wicked Witch of the West.

“As part of the White Coat Company, student volunteers are able to give back to the local community,” Rodriguez said. “We work together to bring joy to diverse audiences that we don’t interact with regularly.” **P**



The ER for kids

New Pediatric Emergency Room to open July 1

By Allison Wilson

No one wants to bring their child to the emergency room, but accidents and illness strike even the smallest among us. To help ensure these children receive the best care, UF&Shands will open a new pediatric emergency room this summer, with doctors, staff and equipment geared specifically for the youngest patients.

Opening July 1, the Pediatric Emergency Room at Shands Hospital for Children at UF will include a separate entrance, 13 private treatment rooms, and five observation bays with pediatric-specific equipment and technology. It will also offer two waiting rooms and two exam rooms specially designed to isolate children with communicable (infectious) diseases. Pediatrics After Hours will be moving from the Shands Medical Plaza to the renovated space and will include six exam rooms with a waiting room.

Designed with a nautical theme that includes a fish tank and walls painted to simulate waves, the Pediatric Emergency Room will be located where the original Emergency Department was at the east entrance of Shands at UF on the north side of Archer Road. Pediatric emergency services will move from the Shands Critical Care Center in the Shands Cancer Hospital to the new location beginning at 7 a.m. July 1. The new location will consolidate pediatric care in the same building, ensuring a better continuum of care.

“When the new facility is complete, we will oversee close to 20,000 visits per year,” said Jennifer Light, M.D., a medical director of pediatric emergency medicine and assistant professor of emergency medicine in the College of Medicine. “Our entire staff will be trained in pediatric care and pediatric pain management. We will provide care for the full spectrum of illness from minor lacerations and fever to true life-threatening emergencies. This will truly be an asset for the entire community.”

The Pediatric ER is the first phase of the newly planned Shands Hospital for Children. Existing space on adjacent floors within Shands at UF will be redesigned to create the 175-bed hospital. **P**

Caleb Harris visits with Shands at UF nurse Whitney Cruz.

HALF THE HEART



PHOTO BY JESSE S. JONES

Caleb Harris thriving after treatment for congenital heart defect

By April Frawley Birdwell

In the photo, she smiles, cradling her newborn son in the crook of her arm. Looking at the image now, Kim Harris sees the violet tinge to his wrinkly skin, a subtle hint that all was not well inside his six-pound body. At the time, she thought all newborns must look like that

That night Kim and her husband, Danny Harris, sent Caleb to the nursery so they could get some much-needed rest. The decision likely saved his life.

"They came in the room and said he wasn't breathing," Kim said. "Something was wrong with his heart."

Just 16 hours old, Caleb was rushed from Ocala where he was born to Shands at UF, where doctors with UF's Congenital Heart Center diagnosed him with hypoplastic right heart syndrome. The right side of his heart was not fully developed. Medicine kept his heart working, but doctors said the infant would need a heart transplant.

"I just cried," Kim said. "I just remember being very scared because I did not think he was going to live to get a new heart."

Caleb, born a few days before Christmas, spent the first four months of his life in Shands at UF, hooked to tubes and machines, undergoing open-heart surgery and countless tests. It wasn't what Kim or Danny had in mind for

their little boy. No one does.

"We had planned on having Christmas dinner here," Danny said. "I had put a million lights up all around the house. When this happened, I said 'I am going to keep all the lights up until he comes home.' And I did."

At the hospital, Kim, who stayed with Caleb when Danny went back to work, relied on the nurses in the NICU and PICU. They cried with her when she cried, hugged her when she needed it and took care of Caleb when she couldn't be by his side.

"I would come in and I would see some of them just rocking him. It meant so much more. It felt like he had 20 moms," Kim said.

Caleb underwent open-heart surgery when he was 3 months old, alleviating the immediate need for a heart transplant. A month later he was strong enough to go home.

Now 16 months old, Caleb is thriving. He has taken his first steps and loves Mickey Mouse and typical toddler mischief, like getting into kitchen cabinets.

***I Promise** is about making every patient's experience the best it can be. This month we recognize how nurses and doctors helped make a terrifying experience better for one family. For more information about I Promise, email ipromise@shands.ufl.edu.*

She keeps in touch with several of the nurses she met and makes time for a visit or lunch when she and Caleb are in for doctor's appointments.

"It makes us feel great. It makes us feel like what we do matters to parents, to the patients, to the families as a whole," said Erin Murray, R.N., a nurse who cared for Caleb in the PICU.

Kim keeps Caleb's cardiologist, F. Jay Fricker, M.D., chief of pediatric cardiology, on speed dial, too.

"I talk to Dr. Fricker a lot. We joke because now when I call he knows who I am. He knows me as 'Kim' now instead of 'mom.' He is great."

Looking to the future, Kim and Danny's dreams for Caleb are a lot simpler than they were when she was pregnant. She just really wants one thing for him.

"Now I just want him to be healthy," she said. "I just want him to live a long, happy life." **P**

Stopping the seizures

How an unusual diet helped quell the storm in Bronson Roth's brain



PHOTOS BY JESSE S. JONES

Caring for their son, Bronson, requires Tricia and Brent Roth to be constantly on their toes. The 3-year-old requires a precisely measured feeding mixture (left), a complex combination of medicines and round-the-clock supervision. Nurses watch Bronson 14 hours each night so his parents can sleep, and Brent stays home to care for him during the day. For more photos visit post.health.ufl.edu.

By Laura Mize

Bronson Roth's seizures began the moment he was born.

The result of a brain injury at birth, they wracked his body with dramatic, uncontrollable movements. Medications controlled the seizures until he underwent surgery to implant a feeding tube about six months after birth.

"Literally, when he opened his eyes from that surgery, he started seizing," said his mother, Tricia Roth. "He had 150 seizures a day from that point on, for an entire year."

Desperate to help her son, Roth took him to three different hospitals before she heard about Edgard Andrade, M.D., and his work with pediatric neurology patients at Shands at UF. She made an appointment, already knowing what she wanted

the doctor to prescribe: a treatment known as the ketogenic diet.

"My husband and I had decided before we even went and had an appointment with Dr. Andrade, that that's what we wanted," she said. "There were no more drugs they could try. He had already been to that point."

Andrade agreed Bronson should try the diet and, alarmed at the number of seizures the boy was suffering, put him on the fast track to start the treatment. Also known as ketogenic therapy, the diet emphasizes fat intake and is very precise: It's measured down to the tenth of a gram.

"The ketogenic diet works on ratios, so we start them off on like a three-to-one ratio ... three grams of fat for every gram of protein plus carbohydrate," explained Kate Kisilewicz, M.S., R.D., a pediatric dietitian who works with Andrade. "We normally keep them between three-to-one

and four-to-one."

Perhaps because of its regimented nature and the potential side effects — namely kidney stones and nutritional imbalance — some parents are reluctant to try the diet.

"When we told (Andrade) that we wanted to go on the ketogenic diet, he was excited," Roth said. "I guess not a lot of parents do it because it's a lot of work. But I just said, 'I'd rather work and have my son seizure-free than not work and watch him seize all day.'"

How does it work?

For some children with epilepsy, ketogenic therapy can reduce or stop their seizures. Others see no results, and the diet is generally thought to be ineffective for older children and adults.

Ketogenic therapy sends the body into a

Sitting with Rory (from left to right) are veterinary students Lauren DiMartino; Rory's owner, Noelle Spielman; Monica Tschosik; Sarah Franz and Katie Hogan.



RORY'S RECOVERY

constant state of ketosis, in which it burns fat for fuel instead of carbohydrates. No one understands exactly how this helps epilepsy patients, or why it's effective for some people but not others.

Peggy Borum, Ph.D., a professor with dual appointments in the College of Medicine's department of pediatrics and the College of Agriculture and Life Sciences' department of food science and human nutrition, heads a research program on the treatment.

She and her team are working to find answers to those questions, and to understand how the diet, with its limited nutrient variety, affects children's growth. A team of student volunteers, called KetoGators, assist families participating in the research by answering questions about the diet, attending appointments with them and offering general support.

Scientists are exploring other uses for the ketogenic diet, including whether it could reverse kidney damage in diabetics, according to an article published online in April by the journal *PLoS One*. If the diet proves helpful for people with diabetics, it could prevent patients from needing dialysis.

Nearly seizure-free

For Bronson, now 3, the effects of the ketogenic diet have been obvious. In the two years since he began the treatment, his parents have watched his seizures steadily decline. Now, most days are free of the violent seizures that once dominated his life. Andrade has ordered another electroencephalogram, or EEG, to check for silent seizures, which are less obvious.

The family continues to work with Kisilewicz to adjust Bronson's "recipe" to suit his needs. Because he is fed through a tube, Bronson's parents mix a special, no-carb formula with canola oil and two dietary supplements each morning, then load it into a pump that supplies the mixture to him throughout the day.

They consider the diet a success.

"The ketogenic diet worked for him," Roth said. "That was our last option, so I'm glad that it actually worked. Because that was it for us." **P**

UF veterinarians treat dog after 'spinal cord stroke'

By Sarah Carey

When Rory, a 5-year-old Australian shepherd, came inside after playing last fall, Jennifer Crock noticed the family dog was limping. At first, Crock suspected a sprain, but then noticed Rory was dragging her right front paw rather than holding it up. Rory was still able to use her other legs, so Crock, the mother of UF veterinary student Noelle Speiman, wrapped the front leg and the dog lay down in its bed to rest.

Within 20 minutes, Rory was unable to stand or walk.

After Crock's local veterinarian, Mark Salzburg, D.V.M., suspected a type of "spinal-cord stroke" known as fibrocartilagenous embolism, or FCE. Salzburg contacted the UF Small Animal Hospital's neurology service, which recommended Rory be seen at UF for further evaluation.

"We were told that FCE patients don't usually get any worse, and usually make significant improvement in walking ability within days or weeks," Crock said.

As part of her rehabilitation, Rory began receiving underwater treadmill therapy at the Small Animal Hospital. Carolina Medina, D.V.M., chief of UF's acupuncture and rehabilitation service, said UF sees a few FCE cases a month, primarily in large dogs.

"Usually what happens is that a dog will be running fine, but then collapses, usually in obvious pain. Between 12 hours to 24 hours later, the dog is no longer in pain, but it is still paralyzed, similar to a person having a stroke," she said. "It's very traumatic, since you can't prepare for it. Veterinarians will often tell clients to do range-of-motion exercises and massage, which helps, but to get full recovery, you need more aggressive therapy than that."

After a month of rehabilitation therapy at UF, which included acupuncture, laser therapy, neuromuscular electrical stimulation, range-of-motion exercises, massage and a Chinese herbal medicine, Rory quickly began to improve.

Soon, Rory could hop and hobble without falling.

"Rory now plays and enjoys life as if she had never had a spinal cord injury. She can keep up with the other two dogs racing around the yard, and you could never tell that her front leg was ever injured," Crock said.

UF's acupuncture and rehabilitation service, one of the most comprehensive in the state, is in the process of expanding to add a therapy pool. For more information, call 352-392-2235. **P**

Gary Lofthouse earned his pharmacy technician credentials at UF. He now works at Shands at UF.



A SECOND CAREER?

Economy leads some to UF to begin new careers in pharmacy

By Linda Homewood

Pharmacy technician jobs, once sought after by younger workers, are attracting older workers as new licensing laws take effect. While economic uncertainty and unstable job markets linger, many workers, not ready to retire, now see these jobs as stable and fulfilling second careers.

The change in demographics became apparent after the first year of the UF College of Pharmacy's 14-week training program for pharmacy technicians. Program Development Coordinator Judy Riffée, R.Ph., began teaching pharmacy technicians at the college's Gainesville campus in 2008 — before new legislation was proposed.

An experienced pharmacy educator in the UF College of Pharmacy division of continuing education, Riffée expected a class of young adults. Now, she is finding most of her students to be 40- to 60-year-olds, well-educated and eager to get back into the job market in a meaningful way.

"The education and work experience of my current class ranges from librarians and engineers to health care and finance professionals. The common thread seems to be a downturned economy that is greatly affecting job retention and taking many people out of the workplace for which they were originally trained," Riffée said.

The U.S. Department of Labor's Bureau of Labor Statistics predicts pharmacy technician jobs to increase substantially, by 31 percent nationally over the next seven years. The department's 2010-11 *Occupational Outlook Handbook* also noted a favorable job market for those with formal training or certification.

The *DLS Handbook*, revised every two years, reported this job forecast:

"As cost-conscious insurers begin to use pharmacies as patient-care centers and pharmacists become more involved in patient care, pharmacy technicians will continue to see an expansion of their role in the pharmacy."

Becoming a pharmacy technician wasn't something that Phillip Lofthouse, 47, had considered before. Now a graduate of the UF pharmacy technician program, he is working at the inpatient pharmacy at Shands at UF.

"Getting medications to patients is a big thing — it's the best thing I ever did," Lofthouse said.

UF offers its training course twice a week, either in a Florida classroom setting, or nationally, online through video-recorded lessons by Riffée. All students also complete an 80-hour pharmacy externship near their location.

The first U.S. pharmacy college to train technicians, the UF course meets the Florida Pharmacy Board's newly adopted 2011 training requirement for all Florida pharmacy technicians.

The new law no longer accepts previous work experience for licensing. As of Jan. 1, an accredited training program such as UF's is now the only way to meet the Florida Board of Pharmacy's education requirement for technicians.

The UF course was developed to prepare students for taking either of two national certification exams. Though taking the exam is not required in Florida, UF's students are encouraged to do so upon completion of the program, Riffée said. All of her students who have gone on to take the exam have passed, she added.

Since January, the UF program has expanded to include classes in Orlando, Jacksonville and Tampa. Another Jacksonville class began May 10 and a new Fort Lauderdale class will begin June 1.

For more information, visit www.ufpharm.org or call an enrollment specialist at 888-415-5833. **P**

She's No. 1

Yan Ren first alumna of UF Genetics and Genomics Graduate Program

By John Pastor

When Yan Ren arrived from China in 2006 to become a member of the first class of the UF Genetics and Genomics Graduate Program, she knew she was in the right place.

She loved the friendly people and the natural surroundings of north central Florida, especially the protected wilderness areas. Growing up, Ren helped her father take care of plants and small animals in her family's garden — experiences that influenced her to become a biologist. By the time she was in high school, she had been studying English and knew she wanted to go to college to study the life sciences.

She was a little surprised to find that when she arrived in Gainesville for graduate school, she could understand what other people were saying, but they seemed to have a harder time understanding her.

It didn't matter. Ren set to work.

A new student in the genetics doctoral program can choose rotations with faculty members from 17 departments within the colleges of Agriculture and Life Sciences, Engineering, Liberal Arts and Sciences, Medicine and Pharmacy.

The idea is that good geneticists are integrative, incorporating many different

subfields of genetics into their work, according to Wilfred Vermerris, Ph.D., the graduate program director and an associate professor of agronomy at IFAS.

Ren embodied that principle, doing three rotations in three different colleges before choosing her adviser: Jeffrey Hughes, Pharm.D., Ph.D., in the College of Pharmacy's department of pharmaceuticals.

That relationship led her to the College of Medicine's department of pharmacology and therapeutics, where she pursued Alzheimer's disease studies with Edwin Meyer, Ph.D., an authority in the field of neuroprotection, and Michael King, Ph.D., who studies gene therapy for neurological disorders.

Eventually, Ren finished her graduate education in the lab of Sihong Song, Ph.D., an associate professor in the department of pharmaceuticals. On April 29, with a 4.0 GPA, she became the first student to graduate with a genetics/genomics doctoral degree.

"I think she is a very brilliant student, there is no question," Song said. "But she is

also very good at working across different subjects, and working with a variety of people across two colleges. That has contributed to her scientific success."

Fellow students and faculty members gathered under the giant double helix in the atrium of the Cancer & Genetics Research Complex to congratulate Ren for becoming "the first alumna," said Kenneth Berns, M.D., Ph.D., director of the UF Genetics Institute.

"She is a wonderful example that our brand new program is changing the way we educate students," Berns said. "Our success depends on training young researchers across disciplines, and we are proudly watching as our students complete the program."

Marta Wayne, Ph.D., the graduate program's founding director and an associate professor in the department of biology, said, "The graduate program grew from an incredibly thick document created through the hard work of many faculty members to this — a real-life human graduate. This is a good day for all of us."

As for Ren, she plans to continue doing postdoctoral studies at UF. She lives in Gainesville with her husband.

"We met at our college in China. He studies biology, too," she said. "I probably could not have gotten through my Ph.D. study without his love and support." **P**



PHOTO BY JESSE S. JONES

Standing with UF Genetics Institute Director Dr. Kenneth Berns (center) and researcher Sihong Song (right), Yan Ren opens a graduation gift at a celebration held in her honor.



VEGGIES TO GO

HSC fruit and veggie lovers now have easy access to Gator CSA

By Laura Mize

If more fruits and vegetables are what the doctor ordered for you, you're in luck. Starting this fall, participants in the Gator Community Supported Agriculture program, or CSA, can pick up fresh, locally grown produce at the Health Science Center.

The program's new location at the HSC is meant to promote sustainability, local farmers and healthy eating, said Lauren Cooper, a second-year medical student at UF.

"Every patient you see needs to have proper nutrition," she said. "There are so many people that have hypertension, diabetes and hypoglycemia. Those are some of the biggest (causes) of heart disease, of all sorts of diseases. I think the starting ground is prevention and eating well."

Cooper initiated the effort to bring area farmers to the HSC after reading an article in *The New York Times* about farmers' markets operating at medical schools. Since then, she's worked with UF's Office of Sustainability to establish an additional drop-off location for Gator CSA.

Gator CSA began operating in 2009, allowing participants the opportunity to select one of four farmers, pay for all the food in advance and pick up the produce at a location at a parking lot off Bledsoe Drive (near the Southwest Recreation Center) every Monday afternoon.

This fall, three farms also will offer pickup at the HSC, and the program is increasing the maximum number of customers who may participate. Gator CSA is open to anyone who wants to participate, not just UF employees and students.

Cooper said Nina Stoyan-Rosenzweig, director of the College of Medicine's Medical Humanities Program, and first-year medical students Jillian McLaughlin and Stephen Chranowski are helping her organize the new Gator CSA pickup location. The three students also are working to establish a Sustainability Interest Group for medical students. Stoyan-Rosenzweig will serve as the group's faculty adviser.

Volunteers from UF's Premedical Chapter of the American Medical Student Association will manage the HSC pickup location, which will be open from 4-5:30 p.m. on Mondays. Cooper is working with HSC leaders to determine the exact location for the pickup. Gator CSA pickups at Bledsoe Drive will continue to be held from 4:30-6:30 p.m. on Mondays.

Cooper, who earned a bachelor's degree in nutritional sciences from UF, said bringing the Gator CSA to the Health Science Center is just the start of her plans to promote healthy eating and local foods at UF and Shands.

"My goal is to get a farmer's market here in the next couple of years," she said. "But we'll see how this goes first." 🥰



PHOTOS BY MARIA BELEN FARIAS

ABOUT GATOR CSA

- 🥰 Farms offering HSC pickup include Swallowtail Farm, Kumarie's Organic Garden and The Family Garden Organic Farm.
- 🥰 Each farm has a different delivery period, beginning in October or November and ending in late spring or early summer.
- 🥰 Kumarie's Organic Garden offers a half-share option.
- 🥰 Prices range from \$350-\$600 for the season.
- 🍅 For more information or to sign up, visit: sustainable.ufl.edu/gatorcsa/.
- 🥰 To volunteer, email Lauren Cooper at coop4@ufl.edu.

Keeping girls healthy

HSC students, residents take part in first Girls Place health fair



By Jamie Harrison

Inside the gymnasium at Girls Place on April 13, young girls ran from table to table learning about different aspects of health, from body image and self-esteem to nutrition and exercise. The tables and displays, strategically placed around the room, were part of the organization's first health fair for girls.

"I had a lot a fun," said Nyla Johnson. "I learned about brushing your teeth and not smoking."

Girls Place is a nonprofit organization that sponsors sports, summer day camp and afterschool programs for school-age girls.

Health education major and Girls Place intern Francis Michelle Decenteceo and her team of helpers organized the health fair, which included students and residents from the UF HSC and organizations such as the CHOICES program and the Alachua County Organization for Rural Needs Dental Clinic.

Medical students and residents from the UF College of Medicine department of pediatrics talked with the girls to promote physical activity, helmet safety and sun safety, and distributed little samples of sunscreen.

UF audiology students from the College of Public Health and Health Professions did a hearing loss prevention activity, letting the girls listen to music and explaining to them when the sound is too loud to be safe. They also did coloring sheets with the girls and passed out ear plugs.

Each time a student visited an educational table, she would get a stamp that allowed her to do a fun activity, such as face-painting. There were also smoothies, raffles and jump-roping.

The program lasted an hour.

"We wanted to do something that encompasses all aspects of health," Decenteceo said. "I'm really excited that the girls are really into it and having fun." **P**



PHOTOS BY MARIA BELEN FARIAS

Playing it SAFE

It was safety first for the UF Public Health Student Association during National Public Health Week, held April 4-10. The students planned a week of activities, including displays, guest speakers and informational handouts on safety at home, work, play, on the go and in the community as part of the national theme "Safety is No Accident: Live Injury Free." The students educated the public on everything from the proper storage of household cleaners to the hidden hazards of microwave cooking and Florida bike laws.



PHOTO BY QUINN LUNDQUIST

Master of Public Health students Nicole Dantes, Tommy Tran and Jason Butler present information on safety at home during National Public Health Week.



Education

ANYWHERE

UF'S ONLINE LEARNING PROGRAMS
PROVIDE DEGREES DESPITE DISTANCE



BY SHAYNA BROUKER



>>> PHOTO BY JESSE S. JONES

IRE

Adrien Zap plops down on the bed, sighs and opens her laptop. Just the day before, she was shuttling supplies to veterinarians scrambling to soothe traumatized pets left behind by the hundreds of people that died or fled from Sendai, hit hardest by the tsunami on March 11. Today, she's settled in a hotel room in Tokyo, Japan, trying her best to review notes and complete assignments between aftershocks that shake the building.

As part of a veterinary disaster relief response team for an organization called World Vets, she spent seven exhausting days reuniting pets with their owners and helping local veterinarians find scarce food and supplies for injured and abandoned animals.

But now it was time to study. After all, Zap, a Connecticut resident, had a final exam to take later in the month in Gainesville, more than 7,000 miles away. It was the last step to complete her online master's of science degree in forensic toxicology.

This wasn't the first time she has had to cram on the fly, literally; Zap applied to the distance learning program in the summer of 2009 while helping run a spay-and-neuter clinic in the Galapagos Islands. That December, she spent her days working at the clinic and her nights taking final exams in a hotel room in Cabrera, Dominican Republic.

In January 2010, she completed assignments in a hotel in San Juan del Sur, Nicaragua, where she was working with World Vets to sterilize spider monkeys at a local primate sanctuary. She spent that summer in Ibarra, Ecuador, researching sodium fluoroacetate poisoning in cats and dogs.

Zap credits her success in the distance learning program to her professors.

"When I wrote to my professors that I was going to Japan, one of them replied, 'The last thing you should be worrying about just now is your studies ...Take care of yourself and I wish you the best of luck in what lies ahead for you and your colleagues. We'll be thinking of you,'" she says. "That was such a huge relief to know they were willing to work with my hectic schedule and sporadic Internet access."

Zap graduated in April with her master's degree. The UF College of Pharmacy's award-winning Online Forensic Science Master's Program made it possible. This

prestigious program is just one of the ways UF is helping students earn an education anywhere. The College of Pharmacy, in particular, is known nationally as a leader in distance education, but other HSC colleges, including Nursing and Public Health and Health Professions are making their own dent in distance learning, too.

>>>A PIONEER IN FORENSIC SCIENCE<<<

Now entering its 11th year, UF's Online Forensic Science Master's Program has graduated more than 650 working scholars like Zap, who, in addition to working as a veterinary technician for the past 13 years and helping pets from Haiti to Japan, wanted to further her education.

The UF forensic program is a pioneer in postgraduate education, fusing the latest learning technology with the community of the Web and, of course, top-notch instruction. In 2006, the American Distance Education Consortium gave the program its Award of Excellence in Distance Education.

This May, Program Director Ian Tebbett, Ph.D., received the highest honor from the consortium — the Irving Award for outstanding leadership. He also won the 2010 Outstanding Leadership Award from the U.S. Distance Learning Association.

Tebbett, a professor in the College of Pharmacy, founded the program in the fall of 2000 with 20 students and two courses. After the Florida Department of Law Enforcement caught wind of it and wanted to train its employees in forensics, the program expanded to include six degree tracks with between 700 and 1,000 students from every state and 35 countries.

These students include military investi-





“WHEN I WROTE TO MY PROFESSORS THAT I WAS GOING TO JAPAN, ONE OF THEM REPLIED, ‘THE LAST THING YOU SHOULD BE WORRYING ABOUT JUST NOW IS YOUR STUDIES ...TAKE CARE OF YOURSELF AND I WISH YOU THE BEST OF LUCK IN WHAT LIES AHEAD FOR YOU AND YOUR COLLEAGUES. WE’LL BE THINKING OF YOU.’”
 >>>ADRIEN ZAP



gators serving overseas, crime scene investigators and even teachers who want to mix forensics in the classroom to make science fun.

“If someone can log on to a state university website in the middle of a natural disaster on the other side of the world in Japan, we can reach anyone in the world,” Tebbett says. “We are very pleased that we can be a part of an effort like that as well as with the military. And the discussions that come out of that are so interesting, from students all over the world, from different walks of life and professions. This is the way of the future.”

>>>FOR THE WORKER BEES<<<

The idea for online master’s degrees grew from earlier success in the College of Pharmacy’s Working Professional Doctor of Pharmacy Degree program, known as the WPPD. Launched nationally in 1994, the program gave registered pharmacists with a bachelor’s degree an opportunity to study the UF pharmacy curriculum by meeting with clinical facilitators in their regional cities.

More than 1,600 pharmacists across the United States, Canada and the Caribbean have earned the UF Pharm.D. degree through the WPPD program.

“I think that pharmacists in particular, like all health care professionals, are keenly aware of the need to continue learning. The drugs we learned in pharmacy school aren’t the ones we use today,” says Sven Normann, Pharm.D., an associate dean for distance, continuing and executive education and di-

rector of the WPPD. “But the realities of the world are that pharmacists are not able to quit their jobs and obligations to families to adapt to changes and acquire new knowledge and skills. We offer those folks the opportunity to achieve lifelong professional dreams.”

Though the need for pharmacists with bachelor’s degrees to seek the Pharm.D. will diminish as more earn these credentials, the need for training in managing patient medication is now growing, Normann says. The college answered the demand by starting an online master of science in pharmacy in medication therapy management this May with 12 students across the United States.

Also, in 2006, David Brushwood, R.Ph., J.D., started the online master’s of science in pharmacy in the department of pharmaceutical outcomes and policy. Two-hundred fifteen students — and growing — learn areas of specializations in drug regulatory sciences related to policy, patient safety, clinical research and pharmacoconomics.

Like the other distance programs, it caters to working professionals with obligations to full-time jobs and families.

>>>ONLINE BUT STILL ON-TASK<<<

Each distance learning program differs slightly in its purpose and requirements, but the basic design is the same: Students take one course at a time and have anywhere from two to seven years to complete the requirements. They come to Gainesville just one to three times a year to attend seminars and ex-

ams, often scheduled the same weekend for convenience.

A learning platform called Sakai serves as both virtual classroom and teacher’s desk. It’s used to store recorded lectures, administer exams, keep track of grades and host online discussion forums.

Elluminate is the highly interactive, live online learning system where courses are held. Like Skype or video chat, students can raise their hand, ask a question and talk with the professor. If students face a problem, instructors reply via email within days.

Both students and instructors say the Internet environment enhances rather than dilutes the engaging air of a traditional classroom.

“People are far more comfortable with the technology of today, like email, text, Skype and smartphones, than they are raising their hand in a classroom,” Tebbett says. “My favorite quote from a student is, ‘There is far more interaction online than in any other brick-and-mortar classroom setting.’”

And students can take breaks in their coursework if necessary.

“What we’re trying to do is meet students’ needs,” Brushwood says. “Flexibility is the key to success. We have to make it possible for them to learn in their own way.”

To debunk another misconception of distance learning, it’s no walk in the park. The college has standards that must be upheld, Brushwood notes. An online degree is no different in difficulty from one earned in the classroom, and those in the College of Pharmacy maintain the same standards re-

quired by the Accreditation Council for Pharmacy Education.

“Some people sign up and think they will just sit back, listen to the speakers and get some credit,” Normann says. “It’s not easy, but it’s doable. And a degree from UF — one of the top 10 pharmacy schools in the country — is something to be proud of.”

Until a moratorium was placed on offering the Pharm.D. to those outside the U.S., the Working Professional Doctor of Pharmacy Degree program was popular among German pharmacists eager to learn Americans’ clinical approach to patient care. The interest among German pharmacists, who typically serve more in a chemist role, led the college to start another new online master’s program in clinical pharmacy for European pharmacists, beginning in Germany this fall.

>>>NURSING, ONLINE<<<

Other colleges at the Health Science Center have “taken to the cloud,” too. The College of Nursing launched its Doctor of Nursing Practice program, or DNP, in 2006 to eventually replace its master’s degree options for advanced practice nursing specialties. UF was one of the first colleges in the state to offer the program in accordance with the American Association of Colleges of Nursing’s call for educational transformation.

Being able to earn the DNP from anywhere in Florida is a boon to working professional advanced practice nurses who already have their master’s degrees but want to keep up with the national trend. Sixty-seven students were enrolled in the online postmaster’s DNP in spring 2011. The program sees growth ahead, as the master’s program will be completely phased out by 2014.

“WALKING ACROSS THE STAGE MAKES YOU FORGET ALL THE STRESS YOU WENT THROUGH. NOW I HAVE THE SATISFACTION THAT I EARNED IT FOR (MY FAMILY). I TOLD THEM, ‘I DID THIS FOR YOU, NOW YOU NEED TO DO THE SAME.’”

>>>SADAF TAIYEB

>>>PUBLIC HEALTH PROGRAMS<<<

The College of Public Health and Health Professions also started its online certificate in public health in 2006 and then the master’s program in 2008. Vrunda Sakharkar, M.D., a gynecologist trained in India, has earned both.

Sakharkar was impressed with the quality of the program after her husband Prashant completed the Working Professional Doctor of Pharmacy Degree program in 2007. As a lecturer at the University of the West Indies in Nassau, the Bahamas, she wanted to expand her knowledge base while passing it on to her students. Besides, she too enjoyed “the whole excitement of being a student.”

“I don’t think I was a bad doctor before, but I think (the degree) made me a better doctor. I look at problems a little more globally rather than saying, ‘Just take this tablet and you’ll be fine,’” she says. “It will help me in my teaching directly when I’m guiding grad and postgrad students.”

For graduates, the accomplishment of earning a degree online is no less significant than if they had sat in a classroom. For most, it’s enough to merit a trip to Gainesville just to walk across that stage.

>>>GRADUATION DAY<<<

Fourteen students from the online master’s in pharmaceutical outcomes and policy program and two from the online forensic science program attended the College of Pharmacy’s graduation ceremony April 29.

One student, Sadaf Taiyeb, a mother of two, earned her master’s of science in pharmacy with a concentration in patient safety

and risk management in December 2010. But she waited to walk until the graduation ceremony in April so her family could fly from Dubai to be there.

They almost didn’t make it due to a family illness. But her main role model, her father, says despite that he wouldn’t miss her walk. It was important to him and their family, and she had worked extremely hard the past two years to earn her degree.

“There were times I thought, ‘Oh my gosh, what have I gotten myself into?’ she says. “A couple of times I almost had a nervous breakdown during midterms and finals. I was on the computer for 24 hours straight and slept just three hours a night.”

But, she says, finally holding her hard-earned degree in hand made all the stress worth it. With the support of her parents, brother, sister-in-law, husband and daughters, she did it.

“Walking across the stage makes you forget all the stress you went through,” she says. “Now I have the satisfaction that I earned it for (my family). I told them, ‘I did this for you, now you need to do the same.’”

Her next step? Taiyeb plans to apply for jobs as a patient safety representative at pharmaceutical companies or hospitals.

“I know for sure this is going to open up doors for me,” she says.

— Maria Belen Farias contributed to this story.



>>> PHOTO BY MARIA BELEN FARIAS


 A chalkboard illustration featuring two simple line drawings of children, a boy and a girl, standing in the center. The boy is on the left, wearing a t-shirt and shorts, with his arms outstretched. The girl is on the right, wearing a dress. The text 'How School can keep kids off drugs' is written in a stylized, hand-drawn font across the board. 'How' and 'School' are in a larger, more decorative font, while 'can keep kids off drugs' is in a simpler, smaller font. A piece of white chalk lies on the bottom right corner of the chalkboard.

How School can keep kids off drugs

By April Frawley Birdwell

In building a culture where even the most underprivileged students can achieve academic success, schools may be able to inadvertently stymie another problem: drug and alcohol use.

While studying 61 inner-city middle schools in Chicago, UF researchers found that students in schools that performed better than expected were less likely to use drugs and alcohol, steal or participate in fights than children in schools that did not perform as well. The study was published in March in the journal *Prevention Science*.

Higher performance in the classroom reduced the rate of drug use and delinquency in schools by as much as 25 percent, said Amy Tobler, Ph.D., a research assistant professor of health outcomes and policy in the UF College of Medicine and the study's lead author.

The schools in question all had high populations of ethnic minorities and children from underprivileged homes, factors often linked to lower achievement in schools, Tobler said.

"It could be good teaching, better administration. Whatever these schools are doing, if we can

replicate it, it will lead to not only academic achievement but improvement in healthy behaviors as well," Tobler said. "Some schools can break that strong link between sociodemographic disadvantage and drug use and delinquency."

The researchers collected data in the schools between 2002 and 2005, following students in their sixth-, seventh- and eighth-grade years. Academic achievement scores were based on standardized tests on reading and math, which public school students in all states are required to take. The researchers determined how well schools should perform based on each school's own sociodemographic factors and compared that to how well they actually fared. They then compared that information to achievement and attendance records and data collected about students' drug and alcohol use.

Of the 61 schools, seven performed better than expected academically, a link that seemed to help keep kids in class and off drugs and alcohol, Tobler said.

"I think the study is provocative, and it has one remarkable aspect: Schools that do better have effects that are not (solely) academic, and that tells you that the whole culture of the school is important," said David Berliner, a Regents professor emeritus of education at Arizona State University, who was not involved with the study. "It is not surprising, in a way. If you can get low-income kids to identify with a school, you get better kids at the end."

The researchers refer to this link between a school's academic culture and students' healthy behaviors as "value-added education," a concept that was first shown in the United Kingdom in a different population of students. The UF study shows that this can work among students facing disadvantages as well, Tobler said.

But the progress could be undercut by proposed funding cuts to educational programs across the country, Tobler added.

"Almost all states are cutting budgets to public education," Tobler said. "We are increasingly asking them to do more and more with fewer resources. The extent to which schools can achieve this value-added education or continue it may be severely limited by budget cuts."

Other researchers who contributed to the study include Kelli Komro and Alexis Dabroski of UF; Paul Aveyard of the University of Birmingham; and Wolfgang A. Markham of the University of Warwick. 



AMY TOBLER, PH.D

Not-so-yummy news

New report about riskiest food pathogens highlights food safety

By Claudia Adrien

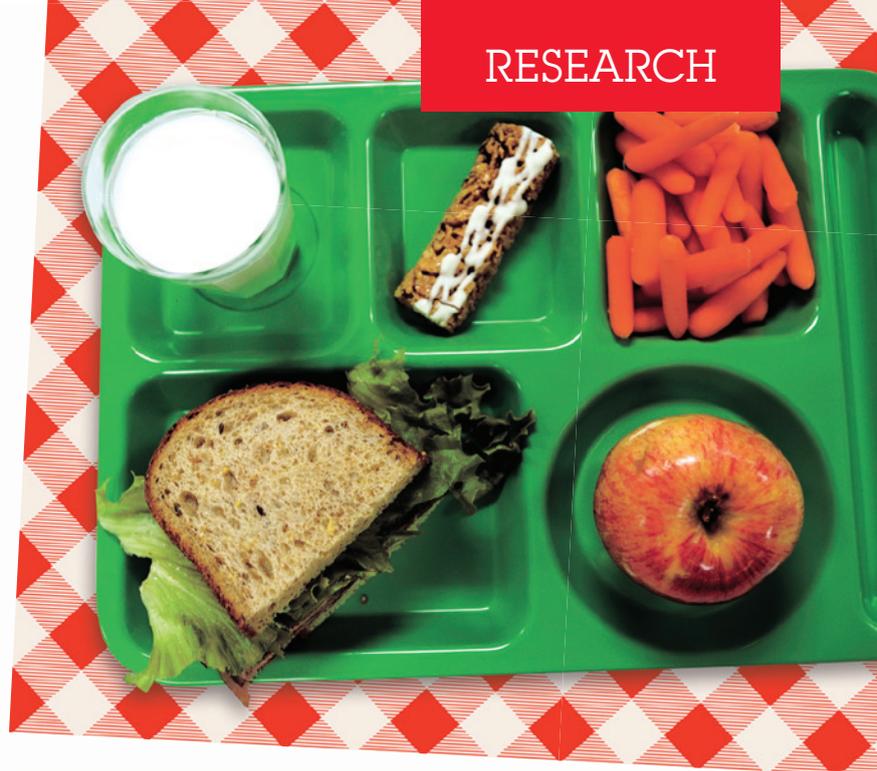
Emerging Pathogens Institute scientists have identified the Top 10 riskiest combinations of foods and disease-causing microorganisms, providing an important tool for food safety officials charged with protecting consumers from these costly and potentially life-threatening bugs.

The report, “Ranking the Risks: The 10 Pathogen-Food Combinations with the Greatest Burden on Public Health,” lists the number of illnesses, costs and overall public health burden of specific microbes in particular types of food, such as Salmonella in poultry and Listeria in deli meat. This is the first comprehensive ranking of pathogen-food combinations that has been computed for the United States.

Millions of Americans get food poisoning each year and thousands die. Federal agencies such as the Food and Drug Administration, U.S. Department of Agriculture, and more than 3,000 state and local governments are charged with protecting consumers from these risks, but their efforts often are fragmented and uncoordinated.

“The number of hazards and scale of the food system make for a critical challenge for consumers and government alike,” said Michael Batz, M.S., lead author of the report and head of Food Safety Programs at the Emerging Pathogens Institute. “Government agencies must work together to effectively target their efforts. If we don’t identify which pairs of foods and microbes present the greatest burden, we’ll waste time and resources and put even more people at risk.”

Of these, the new report concludes that five leading bugs — Campylobacter, Salmonella, Listeria monocytogenes, Toxoplasma gondii, and norovirus — result in \$12.7 billion in annual economic loss with the Top 10 pathogen-food combinations responsible for more than \$8 billion.



Here's a few highlights from the list:

- 1 Poultry contaminated with Campylobacter bacteria topped the list, sickening more than 600,000 Americans at a cost of \$1.3 billion per year. Infections can cause acute illness such as vomiting but also can lead to hospitalization or death. The report questions USDA standards for young chickens and turkeys are sufficient, and recommends evaluating and tightening these standards over time.
- 2 Salmonella is the leading disease-causing bug overall, causing more than \$3 billion in disease burden annually. Salmonella-contaminated poultry, produce, eggs and multi-ingredient foods all rank in the Top 10. The report recommends the FDA and USDA develop a joint Salmonella initiative.
- 3 Listeria in deli meats and soft cheeses and Toxoplasma in pork and beef pose serious risks to pregnant women and developing fetuses, causing stillbirth or infants born with irreversible mental and physical disabilities. The report recommends agencies strengthen prevention programs and improve education efforts aimed at pregnant women.
- 4 Norovirus is the most common foodborne pathogen and is largely associated with multi-ingredient items that can become contaminated, often by service-industry workers who handle food. The researchers recommend strengthening state and local food safety programs.
- 5 E. coli is the sixth pathogen in overall burden, with the majority due to contaminated beef and produce. The report recommends federal agencies continue to target E. coli, due to the particularly devastating injuries it causes in small children.

Researchers say people should not avoid foods on the list but take caution that many of the foods we eat every day can become contaminated. While some food safety risks are outside of our control as consumers, effective food safety practices — such as making sure you wash your hands frequently and use separate cutting boards and knives for meat and produce — can help to keep your family safe from foodborne illness. For more information, visit epi.ufl.edu. **P**

brake Putting the on cancer

Discovery of biomarkers could lead to therapies for tumor suppression

“IT’S A WELL-ACCEPTED FACT THAT YOU CAN INHIBIT THINGS, PARTICULARLY ONCOGENES, THAT DRIVE CANCER. ONCOGENES ARE THE CANCER’S GAS PEDAL.”



— **DAVID REISMAN, M.D., PH.D.**

By Lindy Brounley

When a movie character says, “It’s too quiet,” that’s usually a sign something bad may happen.

Now, UF researchers have discovered that when variations of a certain protein in our cells are too quiet, it may add to the risk that someone will develop lung cancer. When scientists restored the protein to its normal, active self, its cancer-inhibiting properties reappeared.

These discoveries, published in the online version of *Oncogene*, show that drugs can potentially suppress tumor growth by restoring cellular processes rather than inhibiting cancer-causing genes known as oncogenes.

“It’s a well-accepted fact that you can inhibit things, particularly oncogenes, that drive cancer. Oncogenes are the cancer’s gas pedal,” said principal investigator David Reisman, M.D., Ph.D., a UF associate professor of medicine and a member of the UF Shands Cancer Center. “What we’ve done is demonstrate the feasibility of reconstituting the cancer brake.”

The protein, known as Brahma, or BRM, is involved in the regulation of cellular functions like gene expression, DNA repair and cell adhesion. It also has a role in telling cells whether to divide and grow or stop dividing and die. Other

studies have found “silenced” BRM is present in 10 to 20 percent of all solid tumors.

Reisman knew from his own research that silencing the BRM gene alone did not cause tumor growth, but when carcinogens were introduced, 10 times as many tumors appeared compared with mice with normal BRM expression.

“The gene was not a tumor suppressor in the classical definition but a tumor susceptibility gene, and when the expression is lost, it primes you to other events that potentiate the development of tumors, such as tobacco carcinogens,” Reisman said.

More people die of lung cancer every year than of cancers of the breast, colon, prostate or lymphoma combined, according to the National Cancer Institute. However, only 10 percent of smokers develop lung cancer and as many as 15 percent of those diagnosed with lung cancer have never smoked.

Reisman’s work shows that two variations, or polymorphisms, within the BRM gene could be biomarkers for lung cancer and help doctors identify individuals at higher risk. This could lead to more cost-

effective screening and lifesaving early detection.

Investigators sequenced the genes of 160 people and learned that roughly 20 percent carry the gene variants. With collaborator Geoffrey Liu, M.D., a research scientist at the Ontario Cancer Institute at the University of Toronto, the team verified the presence of the silenced BRM variants in human lung tumors.

Reisman and Lui also conducted control studies on people matched for age, gender and smoking history. Of them, 484 individuals had lung cancer and 715 were healthy and cancer-free.

“The chance that you would develop lung cancer if you had both polymorphic sites was 220 percent higher,” Reisman said.

The team also studied whether it would be possible to restore normal expression of the BRM protein. Certain compounds, called histone deacetylase — or HDAC — inhibitors, had been demonstrated by other researchers to reactivate the BRM gene, but did not restore the cancer-suppressing function of the BRM protein.

By introducing the healthy protein alongside the reactivated gene, the researchers were able to stop the growth of cancer cells. That makes the process a potential target for drug therapies to use in suppressing many tumor types. **P**

THE HAZARDS OF HOOKAH

Social hookah smoking packs a carbon monoxide punch

By Jill Pease

Patrons leaving hookah cafés had carbon monoxide levels more than three times higher than patrons exiting traditional bars, according to a new UF study.

Carbon monoxide reduces the blood's ability to carry oxygen to tissues, and long-term exposure has been linked to cardiovascular disease. The results appeared in the March issue of the *American Journal of Preventive Medicine*.

The social nature of hookah smoking, which is often shared in groups, makes it appealing to young people, said lead researcher Tracey Barnett, Ph.D., an assistant professor in the UF College of Public Health and Health Professions' department of behavioral science and community health.

"There is also a common misperception that hookah smoking is a harmless alternative to cigarette smoking," she said.

Hookah pipes are composed of a head, where lit charcoal and tobacco sit, a body with water bowl, and a hose. Air is drawn through the tobacco and into the pipe body, where it passes through the water before being inhaled through the hose.

A study led by Barnett showed that 11 percent of Florida high school students and 4 percent of middle school students surveyed in 2007 had tried hookah smoking. It is especially popular among college students. A University of Memphis study estimated that 10 percent to 20 percent of some young adult populations are current hookah users.

The new UF study is the first to measure carbon monoxide levels of hookah smokers "in the field."

"Our study is unique because we were actually getting participants as they were leaving these establishments," Barnett said. "There's been a lot of great lab work on hookah and carbon monoxide levels, but doing a behavior in the lab is not the same as when young adults are out with their friends in an environment where there's also drinking and socializing, so with this study we were catching them in a real-world moment as best we could." **P**

Spotlight on research



The impact of medical homes

Allyson G. Hall, Ph.D., an associate professor in the College of Public Health and Health Professions' department of health services research, management and policy, has received a \$250,000 grant from the Aetna Foundation to support a two-year study of the relationship between primary care medical homes, patient engagement and care outcomes. In a medical home model, primary care providers coordinate a patient's care throughout the entire health care system and provide patient-centered care, Hall said. "While there is some emerging evidence of the effectiveness of medical homes, their actual impact on patient health and health care remains relatively unexplored," Hall said. The study will involve patients with diabetes who are seen at primary care clinics in Jacksonville.



A safer polio vaccine

Biomedical researcher **James B. Flanagan**, Ph.D., has received a \$100,000 grant from the Bill & Melinda Gates Foundation for his proposal to develop a safer polio vaccine that can be used in parts of the world where polio is a threat, as well as in countries such as the United States, where polio has been eradicated. Flanagan, a professor and the chairman of the department of biochemistry and molecular biology at the UF College of Medicine, was named a Gates Foundation Grand Challenges Explorations winner. Flanagan's strategy to accelerate the end of polio and sustain eradication involves developing a poliovirus vaccine composed of virus capsids — the protein shell of the virus — that look like the virus, but are not infectious.

Doctor's Dilemma winners for \$100, Alex?

Although they faced stiff competition from eight other internal medicine residency teams, team members from the UF College of Medicine-Jacksonville internal medicine residency program will advance to the regional Doctor's Dilemma competition to be held in the fall. The team's winning performance occurred March 13 at the Florida Chapter of the American College of Physicians Spring Internal Medicine Meeting in Orlando. Team members include Vishal Jaikaransingh, M.D., Reshma Ramlal, M.D., and Chandrikha Chandrasekharan, M.D. The ACP Doctor's Dilemma is an annual national medical "Jeopardy"-style competition, in which up to 40 teams of internal medicine residents battle for the ultimate title of national champion.



UF internal medicine residents Vishal Jaikaransingh, M.D., Reshma Ramlal, M.D., Chandrikha Chandrasekharan, M.D., (shown from left with and Jeffrey House, D.O.) won the Jeopardy-style Doctor's Dilemma competition in Orlando.

The final frontier

UF, German researchers studying bacteria in spacelike conditions

By Theresa Makrush

In the search for life on other planets, scientists want to be sure they are not detecting stowaway life forms from Earth.

That's why researchers from UF and the German Aerospace Center, also known as DLR, met at the UF Proton Therapy Institute in May — to test whether certain harmless but hardy Earth microorganisms could survive a type of cosmic radiation encountered during interplanetary flight.

The space environment is filled with radiation, such as X-rays, gamma rays, protons, electrons and heavy ions. High-energy protons are the most abundant type of charged particle in deep space outside the Earth's magnetic field. The proton accelerator used to produce therapeutic doses of radiation for cancer patients also can be used to simulate the conditions of outer space.

"Patients and visitors to the UF Proton Therapy Institute often remark that our treatment rooms look like something from the television series 'Star Trek,'" said Stuart Klein, executive director of the institute. "The sophisticated science and engineering used every day in treating patients is awe-inspiring. This collaboration with UF, NASA and the DLR adds another level of significance to the truly unique resource we have here in Jacksonville."

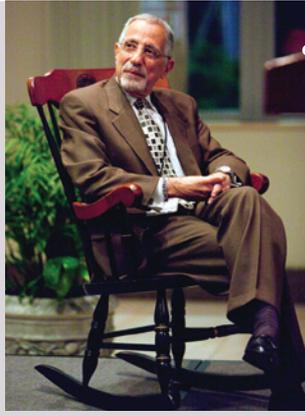
Working together on the research, funded in part by NASA's Office of Planetary Protection, are Wayne Nicholson, a UF Institute of Food and Agricultural Sciences astrobiologist who works from NASA's Space Life Sciences Laboratory at the Kennedy Space Center, and Ralf Moeller, a scientist from the German Aerospace Center in Cologne, Germany.

They will study the effects of high-energy protons on two types of bacterial spores: *Bacillus subtilis* and *Bacillus pumilus*. These harmless bacteria are found in abundance on Earth and have survived past space expeditions.

"Future missions to other planets such as Mars are designed to look for life," Nicholson said. "Earth is completely covered with life, and Mars life could be very different. We want to eliminate the possibility of forward contamination of Earth life to other planets. That way, if we do discover life on Mars, we will be confident that we have indeed found Martian life, not Earth life."

The researchers plan to test the spores' ability to withstand extended exposure to high-energy protons and study the bacteria's remarkable ability to repair their DNA when damaged. 

A career of discoveries



Kathleen Shiverick, Ph.D.

Today, most expectant mothers know the risks of smoking during pregnancy. But that wasn't always the case.

Throughout her career at the College of Medicine, Kathleen Shiverick, Ph.D., a professor emerita of pharmacology and therapeutics, has shown through her research just how damaging cigarette smoke and other toxins can be to a developing baby.

As a new faculty member in 1978, Shiverick received funding to study the effects of cigarette smoke on the placenta. During this research, Shiverick and her team discovered that blood cells are formed in the fetal liver, meaning that if a mutation occurs there because of a toxin, it will spread to the bone marrow and, potentially, the rest of the body.

With a career of discoveries that have helped broaden understanding about the effects of toxins on the placenta as well as nutrition as a way to stymie the growth of cancerous tumors, Shiverick became the first woman to receive the Lifetime Achievement Award from the College of Medicine Faculty Council. The award was presented to Shiverick April 13.

"I was humbled looking at the list of past recipients, which included Dr. (Thomas) Maren, the founder of our department," Shiverick said.

Her research projects have varied over the years, from her early work on cigarette smoke to examining the health effects of pollutants found at Superfund sites. During the past 10 years, Shiverick has studied nutrition as a way to prevent tumor growth.

— April Frawley Birdwell

Edward Block, M.D.

The patient was dying, a victim of too much oxygen. The idea confounded Edward Block, M.D., then a young doctor.

"I was so flabbergasted that (doctors) could give too much oxygen so that it would damage someone's lungs and kill them," said Block, a distinguished professor of medicine in the College of Medicine and former chair of the department of medicine. "It never struck me that oxygen could be harmful."

This notion that oxygen could have ill effects on the body sparked Block's three-decades-long research career studying the endothelial cells that line blood vessels in the lungs. These cells play a key role in the lungs because it's the place in the body where blood comes in closest contact with the air we breathe. Consistently funded by the National Institutes of Health, Block's pioneering research led to a greater understanding of how these cells work and the various roles they play, from transporting toxins out of the body to serving metabolic functions.

Block's research career is just one of the accomplishments that earned him a Lifetime Achievement Award from the College of Medicine Faculty Council, an honor he was surprised to receive.

"I am delighted, so honored and humbled," he said of the award. "I never expected anything like this."

For eight-and-a-half years Block served as chair of the College of Medicine's largest department, stepping down in the fall of 2010.

"He guided the department through tough times but made us better," Wingard said. "The size grew, the research enterprise grew, there was a greater focus on education ... he is a very selfless individual who was dedicated to his faculty. He helped many people advance their careers."

— April Frawley Birdwell

COLLEGE OF DENTISTRY

VENITA SPOSETTI,

D.M.D., an associate professor in the department of prosthodontics, has been appointed associate dean for education. Since July 2001, Sposetti has served as the assistant dean for admissions and financial aid, which is part of the Office of Education. In that role she managed dental admissions and financial aid, led efforts to implement holistic admissions practices in the D.M.D. program and effectively managed the program during a decade of dramatic growth in application numbers.



Venita Sposetti

residency program, received a UF Faculty Enhancement Opportunity award for the spring 2011 cycle. Bautista received \$4,380 for efforts to enhance process improvement strategies and outcomes of quality measures and improve patient satisfaction through attendance at the American College of Physician Executives Three Faces of Quality seminar.



Ramon D. Bautista

Malcom Randall Veterans Affairs Medical Center, was cited for her passion, devotion and excellence in geriatric psychiatry education. Her efforts in education include teaching medical students and residents in psychiatry, emergency medicine, neurology and critical care, as well as curriculum development and administration.

JON E. GRAHAM, Ph.D.,

has been appointed deputy director of clinical operations for the UF Shands Cancer Center and a research assistant professor in the department of radiation oncology. Graham is a senior health care executive with more than 20 years experience in hospital operations, business development and oncology. He will provide leadership associated with planning, developing, implementing and coordinating all clinical service oncology programs.



Jon E. Graham

JACKSONVILLE

RAMON D. BAUTISTA, M.D., M.B.A., an associate professor and associate program director of the neurology

COLLEGE OF MEDICINE

JOSEPHA CHEONG, M.D., a professor of psychiatry, was named the 2011 Educator of the Year by the American Association for Geriatric Psychiatry. Cheong, who is also associate chief of staff of the



Josepha Cheong

JOHN WINGARD, M.D.,

a professor and eminent scholar in the College of Medicine division of hematology and oncology, and director of the Bone Marrow Transplant Unit, has been appointed deputy director for research for the UF Shands Cancer Center. Wingard's principle responsibilities will be to oversee cancer clinical trials and to strategically advance the core grant-related initiatives and infrastructure of the center and its partner organizations.



John Wingard

COLLEGE OF PHARMACY

LAWRENCE J. LESKO,

Ph.D., director of the Office of Clinical Pharmacology at the FDA's Center for Drug Evaluation and Research, will lead the college's new pharmacometrics and systems pharmacology initiative in the interdisciplinary Institute of Therapeutic Innovation at the UF Research and Academic Center, now under construction in Orlando. Lesko, who assumes his new duties July 1, has influenced the profession and spurred scientific growth in clinical pharmacology, drug development and regulatory decision-making for the past 16 years.



Lawrence J. Lesko

STEPHAN LINDEN, B.S.Pharm.,

a senior graduate teaching assistant in the college's department of pharmaceutical outcomes and policy, has been awarded the UF Graduate Student Teaching

Award. A native of Germany, Linden also received recognition in April from the UF College of Pharmacy after graduating student-pharmacists chose him as Teaching Assistant of the Year.



Stephan Linden

COLLEGE OF PUBLIC HEALTH AND HEALTH PROFESSIONS

BABETTE BRUMBACK,

Ph.D., has been appointed to a four-year term on the Clinical and Integrative Cardiovascular Sciences Study Section of the National Institutes of Health's Center for Scientific Review. Brumback is an associate professor in the department of biostatistics, a department jointly administered by the colleges of Public Health and Health Professions and Medicine.



Babette Brumback

SAMANTHA LUPU,

a senior in the Bachelor of Health Science program majoring in communication sciences and disorders, received the Paula Porcher Criser Scholarship Award from the University Women's Club. Lupu was recognized for her scholarship achievement, leadership and community service.



Samantha Lupu

ANNA YAM, a doctoral student in the department of clinical and health

psychology, received UF's Leighton E. Cluff Aging Research Award in recognition of her research on measures of mental functioning designed to capture real-world tasks, like food preparation and medication use. Her research showed that real-world cognitive tasks could predict the level of functioning and amount of change in seniors' self-reported everyday independence over a five-year period.



Anna Yam



Three times the honors

In March, Gator pharmacy students traveled to the 2011 American Pharmacist Association Annual Meeting in Seattle just like hundreds of other U.S. student-pharmacists. But the UF Academy of Student Pharmacists students returned home with three top awards. The UF students received the inaugural 2010 National Award for Generation Rx, an educational program that increases public awareness of prescription medication abuse and encourages health care providers, community leaders, parents, teens and college students to actively work to prevent abuse. They also received the 2010 National Professionalism Award and the 2010 Region 3 Operation Diabetes Award at the meeting. — Linda Homewood



PHOTO BY MARIA BELEN FARIAS

Hippocrates would be proud

It's telling, perhaps, that one of the first things **Maureen Novak**, M.D., did after accepting the 2011 College of Medicine Hippocratic Award was dish out a little praise of her own. "I am really proud of all of you in the class," said Novak, looking toward the area where members of the graduating College of Medicine class sat. "I am shaking. Thank you so much." On May 3, surrounded by the lush green of Wilmot Gardens, Novak became the fourth pediatrician to receive the Hippocratic Award, widely considered one of the highest honors the graduating College of Medicine class bestows on one of its teachers each year. Novak has been at UF for 14 years, serving as a pediatrics clerkship director and pediatrics residency director before taking on her current role as associate dean for medical education three years ago. She also serves as medical director of the adolescent and young adult program in the department of pediatrics. Graduating student Sonja Boulware remembers being impressed with Novak almost from the beginning of her first year of medical school.

"Just seeing her work one-on-one with students and how she is with her patients shows what an amazing doctor and mentor she is," Boulware said. "The best part about her is I feel like she is the same no matter what situation she is in, whether it is a lecture hall in front of 130 of us or with one of her teenage patients. You can tell she is genuine and she cares, and I think her patients can tell that, too." — April Frawley Birdwell



PHOTO BY JESSE S. JONES

ROBERT COOK, M.D., M.P.H.

THE LINK BETWEEN and DISEASE BEHAVIOR

By Bridget Higginbotham

There are currently about 1.1 million people in the United States living with HIV, but the disease was just emerging 20 years ago when Robert Cook, M.D., M.P.H., was in medical school. While completing his residency in rural Virginia, Cook was struck by the rapidly increasing rate of infection among people in minority groups.

“It was clearly a disease that had behavioral, social and clinical issues,” Cook said.

HIV and how substance abuse affects the disease has become one focus for Cook, an associate professor in the department of epidemiology.

While there are many risk factors for HIV that can't be changed, drinking alcohol and using drugs are behaviors that can be prevented, Cook said. Interventions that change these damaging behaviors are one potential way to improve a patient's outcome.

Cook's latest study, funded by the National Institutes of Health, looks at whether medication can help reduce drinking in women with HIV who drink at hazardous levels. After a year of organizing and planning, Cook and his team are recruiting participants in Jacksonville, Chicago and Washington, D.C., for the small clinical trial.

“What's exciting about this study to me as a physician is that this is a treatment that is readily available but is not offered routinely because we don't have evidence that it works and is safe in this population,” Cook said. “So if our study really works, it truly could open up a wide range of treatment options that people don't normally have access to.”

Cook is also looking at how health professionals can use technology to deliver brief interventions against infectious diseases. In 2008, he worked with the UF Digital Worlds Institute and the Alachua County Health Department to develop an engaging digital game that could be placed in STD clinics to help patients consider their

own risky behavior. Cook, who is affiliated with the university's Emerging Pathogens Institute, also is looking at how social networking and cell phones could be used to track disease and counsel patients for infectious diseases.

“I have been trying to push research in a more practical way,” Cook said. “I'm looking for things that either clinics or doctors can do related to these diseases, which often have a behavioral piece to them.”

Cook's broad research topics lend themselves to multidisciplinary work and he has collaborated with faculty from disciplines such as geography, public policy, pathology and behavioral sciences. His other roles include serving as associate director of the College of Public Health and HealthProfessions' Florida Center for Medicaid and the Uninsured, directing the epidemiology Ph.D. program, seeing primary care patients, and teaching and mentoring students.

“I hope that here at UF we can continue to grow with more graduate students and new faculty who want to work in this area to help University of Florida be on the map for this kind of infectious disease and epidemiology research.” **P**

SEE YA!

The College of Pharmacy's Award Reception was held on April 8 at the Paramount Hotel.



PHOTO BY JESSE S. JONES



PHOTO BY JESSE S. JONES

An alligator bathes in the sun on a warm day at the HSC.



PHOTO BY MARIA BELEN FARIAS

More than 200 UF College of Medicine faculty members and guests attended a faculty appreciation reception April 12 at the UF President's House. The event honored professors' achievements and years of service.

THE POST

05/06 • 2011

Published by
UF Health Science Center
Office of News & Communications

**Senior Vice President,
Health Affairs; President,
UF&Shands Health System**
David S. Guzick, M.D., Ph.D.

**Director, News &
Communications**
Melanie Fridl Ross

Editor
April Frawley Birdwell
afrawley@ufl.edu

Senior Editors
Melanie Fridl Ross, John Pastor

Designer
Mickey Cuthbertson

Photo Editor
Jesse S. Jones

Photographer
Maria Belen Farias

Staff Writers
Melanie Azam, April Frawley Birdwell,
Jennifer Brindise, Tracy Brown Wright, Sarah
Carey, Karen Dooley, Linda Homewood,
Laura Mize, John Pastor, Jill Pease, Czerne
M. Reid, Karen Rhodenizer, Melanie Fridl
Ross, Christine Velasquez

Contributing Writers
Shayna Brouker, Jamie Harrison,
Bridget Higginbotham

Support Staff
Cassandra Mack, Beth Powers,
Kim Smith

The POST is the monthly internal newsletter for the University of Florida Health Science Center, the most comprehensive academic health center in the Southeast, with campuses in Gainesville and Jacksonville and affiliations throughout Florida. Articles feature news of interest for and about HSC faculty, staff and students and Shands HealthCare employees. Content may be reprinted with appropriate credit. Ideas for stories are welcome. The deadline for submitting items to be considered for each month's issue is the 15th of the previous month. Submit to the editor at afrawley@ufl.edu or deliver to the Office of News & Communications in the Communicore Building, Room C3-025.

UF Health Science Center
UNIVERSITY OF FLORIDA