

THE UNIVERSITY OF GEORGIA COLLEGE OF

# Public Health

2010

*Protecting Georgia's  
Waterways*



- **Healthcare Reform — P. 10**
- **Fighting Tuberculosis — P. 8**
- **Preparing the U.S. for the Worst — P. 16**

## Letter from the Dean



Last summer we received word of our accreditation from the Council on Education for Public Health (CEPH), the independent agency recognized by the U.S. Department of Education to accredit schools of public health. Since then, our progress has been dramatic.

We have continued to hire dedicated faculty and staff. Our faculty is producing world-class research in a number of areas. We have hosted hundreds for a symposium on health in Africa. We have begun collaborating with the new MCG-UGA Medical Partnership, which is anticipating its first class this fall.

Our experts continue to build national reputations in five key areas of public health expertise: obesity, infectious disease, cancer research, gerontology and disaster preparedness. Outside funding in these and other areas continues to increase – we now receive more than \$6 million annually in funds and grants, ranking us in the top five among UGA colleges.

Stepping away from campus, we have focused on public service and outreach. Much like the agricultural extension programs that helped restore Georgia agriculture in the mid-1900s, we hope to restore health to Georgia's communities in the decades ahead. We began by deploying Archway Public Health professionals in Athens and Sandersville, and these professionals are actively working to introduce public health principles into local communities. We hope to add at least one more Archway professional in a South Georgia community later this year or early next year.

Perhaps most importantly, in May we graduated another outstanding class. I am confident that this group will contribute to public health in Georgia – and beyond – for decades.

All of this occurred in the shadow of the worst recession in anyone's memory. We have moved forward despite significant budget cuts at the University, and we continue to benefit from strong support from university leadership. Growth in this economy says a lot about this college, its future and its importance to this state and this country.

While we have a busy summer and fall ahead, we are also looking forward to more changes in the future. We will move to Prince Avenue as an anchor of the new UGA Health Sciences campus next year. We will provide more details about this in a future issue, but this move presents tremendous new opportunities for our students, faculty and staff to interact with each other and with the greater Athens community. The move will also offer an opportunity to educate Georgians about public health and better communicate with the public on our mission. We will take full advantage of this opportunity.

There is a sense of excitement in the college about the impending move and our overall momentum. Thanks to each of you for your support and interest in our college.

Sincerely,

Phillip L. Williams, Ph.D., Dean

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Various students from the College of Public Health participate in the water balloon toss challenge during Field Day activities held this spring.

## Dean Williams appointed as chair of public health commission

Phillip L. Williams, Ph.D., dean of the College of Public Health, was appointed by Gov. Sonny Perdue to the Georgia Public Health Commission and then elected by the members to serve as the chair. The GPHC is a nine-member body that will suggest strategies to help guide the state's public health division.

Perdue named five members to serve on the commission. Four others have been appointed by Rep. David Ralston, the Speaker of the Georgia House of Representatives and Lt. Gov. Casey Cagle.

The commission was authorized in 2009 under legislation approved by the Georgia General Assembly. It shifted the Division of Public Health away from the Department of Human Resources to the Department of Community Health.

The commission will only serve from July 1 to Dec. 31, and its mission will be to determine whether or not Public Health should remain under the oversight of DCH, become a stand-alone agency or whether another organizational approach would be appropriate.

According to the advocacy group Trust for America's Health, Georgia ranks 39th among the 50 states in per-capita spending on public health.

## Amazing Student: Kate McGlamry

Recent Honor Graduate Kate McGlamry cares about the world and the people in it. She has done environmental conservation work in Costa Rica, she has done research to help people with pancreatic cancer, and she has worked to help victims of sexual assault. The recipient of numerous scholarships, she loves to cheer for the UGA football and gymnastics teams.

After graduating from UGA this past May with a Bachelor of Science in Environmental Health Science, McGlamry now works in Washington, D.C., with a tutoring organization. She is preparing for her MCAT exams and is working with various non-profit organizations in the area. She wants to use her knowledge to improve environmental protection programs in the United States and throughout other parts of the world. McGlamry said she is preparing to begin work to pursue a master's degree in public health.

### University highlights, achievements and awards:

Upon entering the University of Georgia, I was accepted into the Honors Program and received the Charter Scholarship for academic excellence, leadership and community involvement throughout my high school years. During my freshman and sophomore years, I conducted undergraduate research in Dr. Michael Tiemeyer's lab at the Complex Carbohydrate Research Center. My research was focused on finding early biomarkers for pancreatic cancer using *Drosophila*, otherwise known as fruit flies. Through the Honors Program, I was awarded the Howard and Jane Young CURO Summer Fellowship.

In the spring of 2009, I studied abroad at the University of Georgia's Costa Rica campus in San Luis, Costa Rica. There, I was able to take courses in ecology, anthropology and geology as well as travel throughout the country and learn about the culture and environmental ecosystems of the region.

After my semester in Costa Rica, I interned in Washington, D.C. as part of the Honors in Washington summer program at the Rape, Abuse and Incest National Network (RAINN), the nation's largest anti-sexual assault organization. At RAINN, I spent time on the Online Hotline talking directly to victims of sexual assault and helping them to obtain the resources they needed to recover. I have participated since my freshman year with the non-profit organization Invisible Children, which focuses on ending violence towards children in the Sudan and Northern Uganda. I am also a member of the Blue Key, Golden Key and Epsilon Nu Eta honor societies and am an Honors Ambassador.

### Family ties:

My mother completed her undergraduate degree here and my father earned his juris doctorate from the University of Georgia School of Law. Along with my parents, two uncles and two aunts on my mother's side also attended and graduated from UGA.

### I chose to attend UGA because...

...of the Honors Program. I knew that I wanted to attend a big school, but I didn't want to get lost in the crowd. The Honors Program offered me the benefits of a small school while also giving me the big school feel. Not only that, but the Honors Program offered me incredible research and internship opportunities that I knew would expand my college experience far beyond the classroom.

### My favorite things to do on campus are...

...grab lunch at Tate II and eat outside on the picnic tables on a sunny day. There are so many people running around between classes that I can almost always find someone to eat and chat with me! However, on those special Saturdays in the fall, my favorite thing would definitely be going to Sanford Stadium and cheering for the Dawgs!

### The one UGA experience I will always remember will be...

...when UGA won the football game against Florida in my sophomore year. The excitement and energy outside the game was incredible, and it was great to be part of something so special. I've always loved football and that was definitely the most spectacular game to watch. I've never been so proud to be a Georgia Bulldog!



Amazing Student: Kate McGlamry has big plans for the future!

## Dorner named Mitchell Scholar

Stephen Dorner, who graduated this past spring with a bachelor's degree in microbiology from UGA's Franklin College of Arts and Sciences and a bachelor's degree in environmental health from UGA's College of Public Health, was among the nationally selected recipients of the George J. Mitchell Postgraduate Scholarship. Dorner, an Honors student from Alpharetta, will use his fellowship to earn a master's degree in global health at Trinity College in Dublin, Ireland during the 2010-2011 academic year.

Dorner, who was one of nine Mitchell Scholars announced last November, is a graduate of Chattahoochee High School.

Dorner was selected from a pool of almost 300 applicants from more than 150 colleges and universities across the U.S. He is the second UGA student to receive the award. Christina Faust, who graduated in May 2009 with bachelor's and master's degrees in ecology, was the first recipient last year and among the 10th anniversary class of Mitchell Scholars.

"I am very proud of Stephen for this significant accomplishment. This recognition is an acknowledgment of his talent and hard work," said UGA President Michael F. Adams. "It also validates the efforts of the faculty with whom Stephen has worked and studied while a student at the University of Georgia. When great students like Stephen earn these national accolades, it demonstrates the quality of the educational experience provided at this institution."

The Mitchell Postgraduate Scholarship, sponsored by the U.S.-Ireland Alliance, is a competitive one-year post-graduate fellowship for any discipline offered by institutions in Ireland and Northern Ireland. The award is named in honor of George J. Mitchell, the former U.S. senator who

served as chairman of the historic peace negotiations in Northern Ireland.

"I'm extremely honored to be named a Mitchell Scholar," said Dorner. "I am very humbled to be considered among that prestigious group and look forward to enhancing my understanding of global health issues at Trinity College in Dublin."

As a recipient of an Honors International Scholarship at UGA, Dorner worked in health clinics in Costa Rica and Nicaragua for two weeks in 2008. He then spent three months in Santiago de Chuco, Peru, studying the health effects of smoke exposure from wood-burning stoves under the guidance of UGA environmental health science professor Dr. Luke Naeher. He is co-author of an upcoming paper on the research.

Upon his return, Dorner founded UGA Without Borders in fall 2008, a student organization that addresses public health and economic development challenges facing underserved local and global communities. About 50 UGA Without Borders students volunteered in health clinics in Costa Rica, the Dominican Republic and Tanzania this past summer.

Dorner also was a participant in UGA's Honors in Washington Internship Program this past summer. Working in the D.C. office of Rep. Hank Johnson, Dorner assisted in developing legislation to provide funding for neglected parasitic diseases that disproportionately impact impoverished global communities.

Among his other leadership roles on campus, Dorner was executive director of Volunteer UGA, a campus center for about 35 of UGA's service-based student groups. He was also actively involved with the campus chapter of Habitat for Humanity.



Students from health promotion (in red) do battle with environmental health (in blue) in a spirited tug of war contest at this spring's Field Day for the College of Public Health.

This year's Field Day champions were the team from Health Policy and Management.



## Public Health Faculty Member Discovers Hidden Threats in Georgia Waterways

By Johnathan McGinty

Safe to say, Marsha Black has made some rather important discoveries during her accomplished scientific career.

She's published groundbreaking research on the impact of pharmaceutical drugs on the ecological health of our waterways, and her work is helping to connect the dots regarding the impact of industrial sites on downstream pollution.

For all of those remarkable discoveries, however, it's the potential cumulative impact of all her findings that gives her the most concern.

"What is the joint effect of all these chemicals we're putting in the water?" said Black, an associate professor in Environmental Health Science with the University of Georgia's College of Public Health. "We're running laboratory tests with one chemical, maybe two. We have no clue what will happen if you add Prozac to the heavy metals like zinc, copper and cadmium."

For her, the best way to begin to answer that question is through methodical studies, sifting through her research and data to find those tiny threats to our water supplies. In some instances, such as her work with pharmaceuticals, those contaminants sometimes defy the traditional notion of what a pollutant is.

What Black and her team uncovered was that minute accumulations of Prozac and Zoloft were making their way through wastewater treatment facilities and into the water. The initial tests were conducted on water fleas, and they didn't reveal any worrisome signs. Likewise, tests on mosquito fish yielded

**“What is the joint effect of all these chemicals we're putting in the water? We're running laboratory tests with one chemical, maybe two. We have no clue what will happen if you add Prozac to the heavy metals like zinc, copper and cadmium.”**

--Marsha Black, Associate Professor in Environmental Health Science

results that were expected in that the fish grew lethargic under heavy dosage.

However, when the focus shifted to the African clawed frog, Black found that the presence of even the smallest amounts of anti-depressants had the potential to undermine the ecosystem. The frogs simply ate less and, because they ate less, they were significantly smaller.

"This is significant because when the frogs are smaller, it takes a smaller organism to eat them," she said. "They have an increased susceptibility to predators. A smaller size also typically means fewer mates and fewer progeny. Needless to say, size is an important thing in the animal world."

Another study offered a glimpse of a possible connection between land use and river contamination. Long regarded as one of the cleanest water systems in the region, the Altamaha River recently drew the interest of state regulators in Georgia after the system's mussel population, once very robust, began to decline. Mussels are recognized as a sentinel species in that they have the ability to offer a glimpse into the environmental health of their geographic surroundings.

They live in the water for the entire duration of their life span, processing hundreds of gallons of water per day, meaning they have the potential to accumulate chemicals and pathogens that exist in the water.

Black focused her study on finding trace metals in Asian clams, an invasive, non-native species, and she started in the Oconee River and worked her way south to where the Altamaha enters the

Atlantic Ocean in South Georgia.

Their findings weren't surprising, but they were somewhat alarming.

In areas downstream of industrial sites, there were instances of elevated minerals. For example, in Little Commissioner's Creek just below a kaolin processing facility, there were elevated levels of cadmium, copper and mercury. Downstream from a tire plant, there were higher levels of zinc, while increased levels of chromium were downstream from a nuclear power plant and paper mill.

Black said there wasn't enough evidence to directly connect the higher levels to their proximity to the industrial sites, but it was a logical assumption.

"We do not have proof obviously but, where we find (these minerals) downstream of these places," she said. "We don't find them upstream, so ergo, the assumption is that some part of their process contributed to the elevated levels in the sediments."

In addition, the research yielded a new process of using statistical procedures that was able to distinguish the metal levels in the sediments and mussels from the natural contributions to the river from bed rock and soils.

The data gathered from those experiments proved invaluable to the Georgia Environmental Protection Division, and one of her upcoming projects promises to offer more vital information to policymakers.

Working with other researchers, Black obtained funding from the Georgia Sea Grant Program to examine the state's coastal waters and the influence of leaking septic tanks on

water quality.

Black said her team recently put out "spat sticks," which are PVC rods that are coated in concrete and will attract colonies of oysters. While the oysters will be able to show signs of accumulations of certain pharmaceuticals, the research will also enable scientists to track what types of bacteria and viruses are seeping into the coastal waters as a result of septic contamination.

"The notion is that if these oysters accumulate (sufficient amounts) over time, that perhaps this method could be used as a remediation tool," Black said. "It's not going to work in large bodies of water, but maybe in small tidal creeks it could."

While each new discovery made by Black and her colleagues reveals new information to be used, the real challenge is connecting those seemingly unconnected findings to help paint a broad picture of the health of our water systems. Being able to piece that puzzle together is crucial for other scientists, as well as policymakers, as they work to keep our waterways safe.

"That to me is the biggest problem and, scientifically, that's the more difficult one to solve because there are infinite combinations of contaminants," she said. "It's difficult to put your finger on what causes what, but, (if you're a regulator), you do want to put your finger on it because then you can go back and regulate the substance better. Teasing that information out of these studies is very difficult, but it's something we have to do."

**The Oconee River is part of the Altamaha River system, which was studied by UGA's Dr. Marsha Black. Her research found elevated levels of trace minerals in waters downstream of industrial sites and increased development.**

PHOTO BY TERRY ALLEN



# Former English Major Applies “Replacement Principle” in Battle Against TB

By Johnathan McGinty

It may seem somewhat odd that one of the nation's premier medical researchers was actually an English major, but that's only before you talk to Dr. Christopher Whalen.

Whalen, a professor of epidemiology at the University of Georgia's College of Public Health, wrapped up his undergraduate studies at Stanford University with the intention of being a writer. While his interests eventually shifted to the medical field, principles he acquired in his English classes still play a role in his scientific research.

“All along I have been really interested in critical thinking and research, and English is actually an exercise in critical thinking,” Whalen said. “You read a book or a novel, but your goal is to try to figure out why things happened the way they did. So, you ask a lot of questions, you try to look at what people say and what they do in the context of their writings in order to learn something about human nature.”

That inquisitive nature has served him well. Whalen's work in preventative care for tuberculosis and HIV/AIDS in Africa has put him on the front line in the fight against some of the worst epidemiological diseases in the world. Africa has been battling accelerating rates of tuberculosis for approximately 20 years.

“From a public health and an ethical perspective, you want to study diseases where they're at their worst and find solutions that are relevant for those locations,” Whalen said.

In 2009, Whalen received funding from the National Institute of Health to conduct a research and training program with medical personnel in Uganda.

One of his trainees, Dr. Juliet Sekandi, is assisting him with a study that aims to interrupt the cycle of tuberculosis transmission.

The problem, according to Whalen, is that the diagnosis



**“All along I have been really interested in critical thinking and research, and English is actually an exercise in critical thinking.”**

--Dr. Christopher Whalen

proach focuses on providing a vaccine to populations at risk, though Whalen noted the vaccine is only effective in children.

Those methods are currently practiced in most developing countries, such as Uganda.

Another method focuses on treatment of latent tuberculosis infection, which involves providing treatment and medicine to those who are infected by the bacteria but are not contagious or showing symptoms. This approach prevents the occurrence of disease later in life.

Lastly, environmental controls, such as negative pressure rooms that reverse the flow of air or use ultraviolet light that kills bacteria and other pathogens, lessen the spread of the disease.

of tuberculosis often comes too late. Individuals may have symptoms for months before they visit a doctor, and during that time they may have infected multiple people.

In the study, Whalen and Sekandi conducted a cough survey in a targeted area of the Ugandan city of Kampala. Going door-to-door in some instances, they worked to identify individuals who had been plagued by a cough for more than two weeks. Those that met the criteria were selected for a more thorough medical evaluation and treatment if indicated.

Doing so helped them determine that one percent of the population, a statistically high number from an epidemiological perspective, had the disease and were infectious. The high number of positive cases, as well as their exposure to non-infected individuals, alarmed Whalen. It has forced him to re-evaluate the existing paradigm of treatment for tuberculosis.

Currently there are four primary strategies employed to control tuberculosis. The first one simply provides directly observed therapy for individuals who have developed the disease and are displaying symptoms. The second ap-

Central to Whalen's philosophy of prevention is what he refers to as “the replacement principle.” While he acknowledged it was built upon several complicated mathematical concepts, its premise is rather simple. Epidemics of tuberculosis develop and are sustained when one infectious case is replaced by one or more cases among exposed contacts, at any time in the future.

As they found in the Ugandan research, one individual exhibiting symptoms of tuberculosis is likely to come into contact with a large number of other individuals. These contacts increase the risk that the disease could be transmitted to another healthy individual. If one of those contacts develops tuberculosis at any point in their lifetime, and the original case has either been cured or killed the infected individual, the disease has effectively replaced itself.

“The whole idea of this is to block that replacement,” he said. “If this gives rise to not one case, but, figuratively speaking, half a case, and that case gives rise to another half case and so forth, you can see that, eventually, you're going to bring tuberculosis under control.”

It's these types of concepts that have Whalen interested in rethinking how preventative treatment for tuberculosis is done.

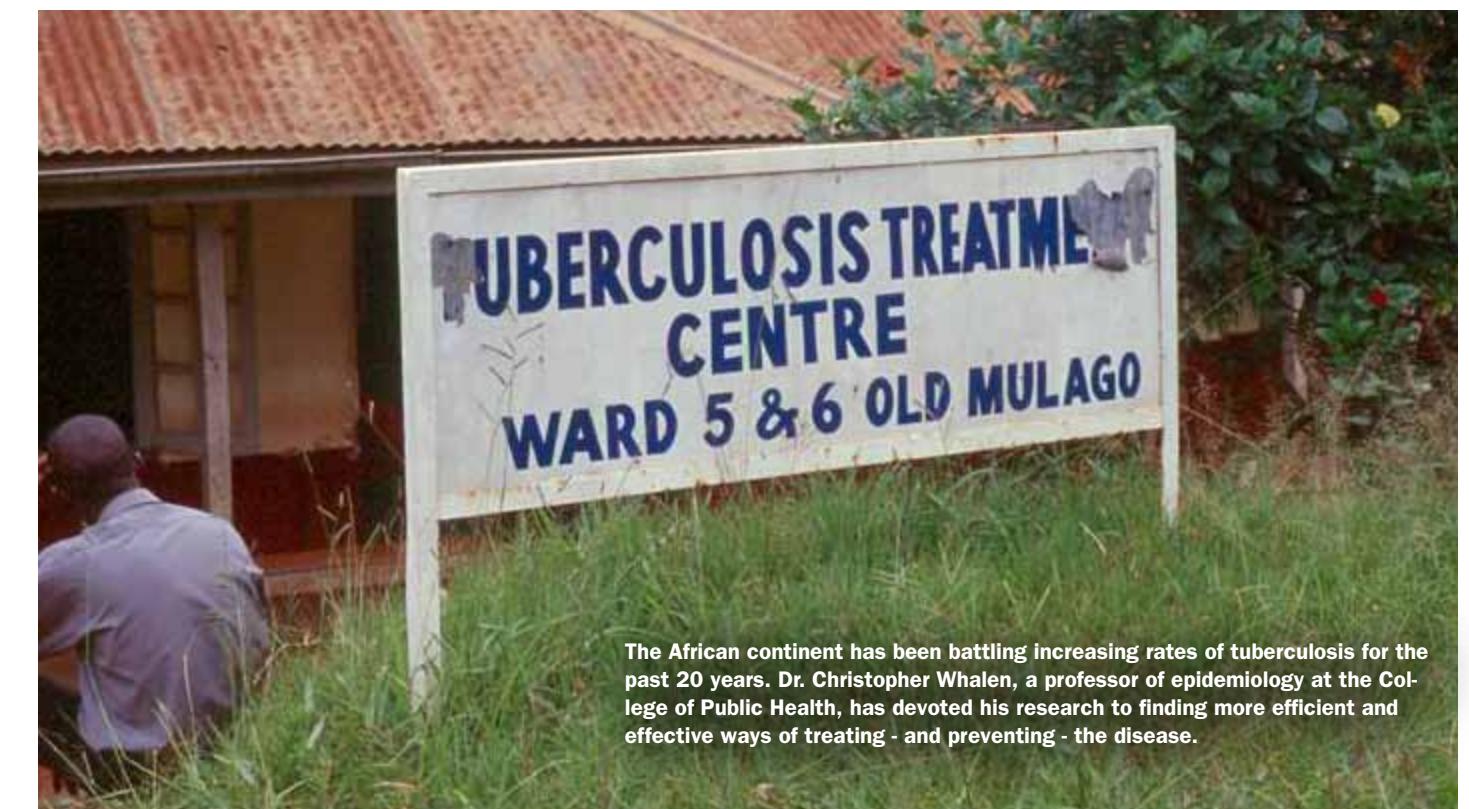
“The next study I'd like to do is one that takes those four control strategies and begins to expand them in ways that address the replacement principle,” Whalen said. “We could work to try and prevent that next case from occurring, but do it in a way that is public health oriented.”

For instance, he said cough monitors in public places or pathogen detectors could provide continuously updated information that could enable

public health professionals to track potential cases more easily. Better building codes could include reverse air flow mechanisms, while active case findings could identify cases earlier and prevent transmission in the community.

Whalen said implementing many of those components and integrating them into the existing treatment paradigm could yield effective results. He would prefer to do it as a large demonstration project in a large African city, but it may be feasible to perform such a project in a small country such as Botswana.

“If we demonstrate that a multi-dimensional approach is effective in one African setting, we may be able to apply it in other countries in Africa,” Whalen said. “So that, to me, would be an objective for the next 5-to-10 years. We need to get that done and the answers sooner than later because the epidemic is not getting better.”



The African continent has been battling increasing rates of tuberculosis for the past 20 years. Dr. Christopher Whalen, a professor of epidemiology at the College of Public Health, has devoted his research to finding more efficient and effective ways of treating - and preventing - the disease.

# Healthcare Reform Law Will Change Healthcare, Deliver Billions for Public Health Effort

By Johnathan McGinty

The recent passage of comprehensive health care reform wasn't achieved without some sense of the usual political drama that accompanies life in Washington, D.C., but according to experts at the University of Georgia's College of Public Health the new law will reach into almost every facet of the health care industry.

The Patients Protection and Affordable Care Act, signed into law by President Obama on March 23, 2010, represents the most sweeping overhaul of the nation's health care system since the establishment of Medicare in the 1960s.

Unfortunately, as with most big pieces of legislation, the debate leading up to its passage was bogged down with inflammatory rhetoric, irresponsible claims and misleading accusations coming from both proponents and opponents of the reform bill.

Beyond the politics of the moment, however, is a bevy of policy changes that will completely change the landscape of health insurance, public health and medical care in the U.S. The various measures passed will ultimately extend insurance to more than 35 million uninsured individuals and completely transform how individuals pay for their care.

Richard Schuster, the director of the Center for Global Health, said the passage of PPACA does not constitute one singular change for the nation's health care system. Instead, what is likely to follow is an "era of reform" punctuated by experimentation and evaluation.

"What we have to do is make (the system) better, because the current health care system is unsustainable," Schuster said. "So what health care reform is all about is finding those best practices, and it will involve experimentation throughout the next decade. One way to experi-

ment is to identify systems of care from other countries and try them here."

One of those key experimentations involves a restructuring of the compensation system, which has long been centered on the notion of volume-based care where physicians and other medical personnel are paid per treatment. PPACA will change that to reward quality-based outcomes, thus placing an emphasis on preventative treatments.

"In health care in the U.S., people usually talk about efficiency and treatment," said Dr. Phaedra Corso, associate professor and head of UGA's Department of Health Policy and Management. "I would argue that for the first time ever, we're going to start talking about public health and prevention. As a nation, that's a major paradigm shift for us."

Geoffrey Cole, the chief medical officer at Athens Health Plan Select and an adjunct faculty member at the College of Public Health, said this shift in compensation was the proper course of action. Such a dramatic reform, however, does pose several challenges.

"Everything about a hospital and doctor's office is set up to handle volumes and do more of the same thing, and that's how you get paid," said Cole.

"Now, if you're a doctor, you're going to have to re-engineer your practice or the hospital to look at quality metrics. You're going to have



**Geoffrey Cole** is the chief medical officer at Athens Health Plan Select and an adjunct faculty member at the College of Public Health.

to focus on improving the quality of care and hopefully get paid in a comparable way to the old volume-based system."

Additionally, as Corso noted, one of the key reforms that has often gone overlooked in the media coverage of PPACA is the increased emphasis and funding for public health.

Health care reform established a prevention and public health fund that will offer an expanded and sustained support system for various public health programs. Included in it is a Community Transformation grant program that will fund activities aimed to prevent and control chronic diseases, and it will also support a national public-private partnership for a prevention awareness campaign.

Initially, the program will be funded at \$500 million in 2010 and will increase annually to \$2 billion in 2015.

"From a public health perspective, the legislation provides funding for public health measures and preventions beyond anything we've ever seen," Corso said.

Additionally, the legislation created a National Prevention, Health Promotion and Public Health Council within the Department of Health and Human Services. This new group, which will be chaired by the Surgeon General, will coordinate the federal agencies connected to preventive treatments and practices in the public health system.

It also establishes grants for a national oral health education campaign, as well as significantly expanded funding for Community Health Centers, school-based health centers and home visiting services. The legislation also requires Medicare, Medicaid and private insurers to fully cover preventive services rather than rely on co-pays or deductibles.

One of the interesting flashpoints that has arisen in the weeks since the bill's passage involves the individual mandate. Under this provision, most citizens, with few exceptions, will be required to purchase insurance. Those who opt not to buy insurance will face a progressively rising tax penalty.

This has drawn the ire of some state governments, and many of them – Georgia included – have filed lawsuits against the federal government arguing the policy is unconstitutional.

From a policy perspective, however, Corso said the inclusion of the individual mandate was imperative to the long-term success of the legislation. With the banning of companies restricting insurance to individuals based on pre-existing medical conditions, there is a need to counterbalance the impending surge in private enrollment.

Otherwise, only those with pre-existing conditions and most in need of medical care would flood the system and dramatically drive up costs. Incentivizing the enrollment of healthy, younger members of the population spreads the cost out over a broader population.

The larger problem, according to Corso, is that the tax penalty is too low. As a result, it likely won't be an effective financial incentive for healthy, uninsured people who might opt to simply pay the penalty in lieu of obtaining coverage.

"What will happen in the experimental phase is that (policymakers) will take a look at that tax penalty and, if too many people are just paying that instead of getting insurance, they'll increase it," Corso said.

The constant evaluation of PPACA is likely to be a common theme as the law is gradually implemented over the next four years. Schuster said the need for consistent questioning and frequent testing, however, should be recognized as a vital ingredient in determining the long-term success of reform.

"I think one of the key outcomes of health care reform is that we're beginning to question those practices that have gone on in our country for many years and wonder whether or not they are the best practices or not," Schuster said. "Health care reform asks questions like 'where are the best practices?' and 'how can we disseminate, adapt and adopt those practices?' If they happen to be outside the U.S., let's find them. If they happen to be within the U.S., let's find those too."



**Dr. Phaedra Corso** is associate professor and head of UGA's department of health policy and management.

## Healthcare Reform Focuses on Public Health

While much of the media focus on the passage of the Patient Protection and Affordable Care Act dealt with the proposed expansion in insurance coverage, there are significant reforms that will re-shape public health and prevention policies in the United States:

- A National Prevention, Health Promotion and Public Health Council is created within the Department of Health and Human Services (HHS) to provide coordination and leadership at the federal level among federal agencies related to prevention and health promotion practices in the Public Health system.
- A Prevention and Public Health Fund will provide expanded national support for public health and prevention programs and also includes support for a Community Transformation grant program directed toward activities to prevent and control chronic diseases. It will be funded at \$500 million in 2010, increasing annually to \$2 billion in 2015 and thereafter.
- The law directs the HHS Secretary to establish an oral health public health education campaign and demonstration grants for school-based sealant programs, oral health infrastructure and surveillance.
- "Healthy Aging, Living Well" Community-Based Prevention Programs will provide competitive grants to support local health departments and Indian tribes for public health community prevention programs for 55-64 year olds.
- The states are authorized to purchase adult vaccines at prices negotiated by the Secretary, and there will be a demonstration program to improve immunization coverage as well.
- Other initiatives directed toward specific chronic diseases including diabetes, depression, congenital heart disease and breast cancer awareness and support for young women.
- Many other important prevention initiatives are included in the Act as well and will be discussed by others.
- Prevention services without co-pays or deductibles will be required for Medicare, Medicaid and privately insured citizens.
- There is significantly expanded support for Community Health Centers, School-based Health Centers, home visiting services and improved data collection and analysis to better understand health disparities.

# Research Q&A with Pamela Orpinas

By Helen Fosgate

Pamela Orpinas, professor of health promotion and behavior at UGA's College of Public Health, spoke with Helen Fosgate, the editor of *ugaresearch*, about her work on bullying and violence in school settings and her belief that all students deserve a positive, inviting and safe school environment in which they are free to learn.

### Q: What behaviors qualify as bullying?

A: Bullying can range from simple name-calling to threats and harassment to more serious things such as stealing and physical assault that, outside of school, are criminal acts. What makes it bullying is that it is repeated over time, forming a pattern.

Kids who bully often have poor social skills - difficulty with establishing relationships - and perform badly in school. But some bullies have especially good social skills and can influence others to follow them. Victims have wide-ranging profiles, but for the most part they are perceived as being different in some way. Bullies have some real or perceived advantage over their victims, such as more friends, more money, or the right clothes. We think about the victims of bullying as being less powerful. They may not have the right friends or the right clothes, or they may have a physical or mental disability.

Regardless of their disadvantages, there are basically two types of victims: those who have done nothing at all to invite the bullying; and those we call "aggressive victims," who may irritate or annoy another student into aggressive behavior and then claim to have been victimized. By-standers also fall into two types. One type

becomes part of the problem by laughing with or otherwise encouraging the bully. The other type tries to discourage the bully or even act as witness for teachers or principals by reporting what they saw. They become part of the solution.

### Q: Have bullying and school violence gotten worse in modern times?

A: We don't really know, as it's not a phenomenon that researchers have quantified over a long period. But we do know that because violence is so pervasive in modern society, meanness is often considered "cool" and accepted as part of the social norm.

Research does show that boys rate higher both in physical and relational aggression than do girls. We expected girls to be lower in physical aggression but thought they might be higher in relational aggression. That turns out not to be the case.

### Q: What are some of the consequences?

A: Sometimes there are the extreme consequences, such as homicide, which often involves a victim who finally takes a stand; and then there is suicide among victims who feel powerless to fight back. But there's also a wide range of effects outside these extremes, including fear, which may result in victimized students not eating lunch or going to the restroom because of concerns about being attacked, physically or verbally. Their self-esteem and social lives suffer because other students don't want to be seen with them (as they also could become targets), and victims' grades can decline. Many bullies report

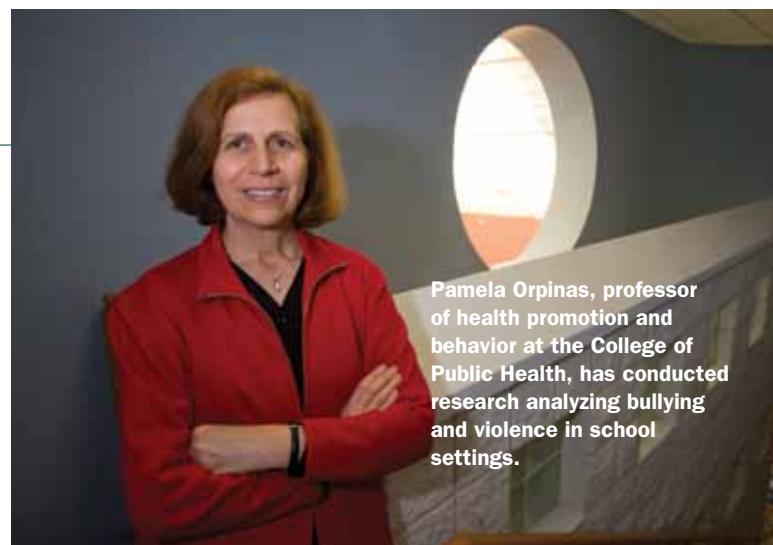
that they too feel worse about themselves than the average student, which may help to explain the initiation of their bullying, and their own grades and self-esteem suffer, and sometimes they feel guilty.

Meanwhile, bullying interrupts teaching and learning, given the students' emotional and physical problems that have been created or exacerbated. We know that both students and teachers perform best in a positive environment that promotes trust, mutual caring and respect.

### Q: What strategies are most effective at preventing or reducing school violence?

A: Adults often give the message, "You should solve this yourself," but the victims often cannot. Most effective is a positive school environment where bullying and aggressive behavior is unacceptable, and teachers have a lot of influence in that regard. The limitation for schools, of course, is that they don't have any control over what happens at home or on the street. Victims of bullying should keep a diary so they can report specific incidences rather than just contend that "everybody picks on me." Once they have some specific complaints, they can go to a trusted teacher, principal or school counselor and develop a plan to stop the bullying. And no one plan fits all students or situations. In any case, teachers and administrators must establish rules for the school, despite what may be acceptable at home.

(This piece was originally published in *ugaresearch* magazine, University of Georgia.)



Pamela Orpinas, professor of health promotion and behavior at the College of Public Health, has conducted research analyzing bullying and violence in school settings.

PHOTO BY PAUL EFLAND

# Croatia Study Abroad Program Turns Five

By Johnathan McGinty

Celebrating its fifth anniversary this year, the Croatia Maymester Study Abroad program recently took 26 students to culturally rich Croatia to explore its cultural history and continuing societal challenges.

The program, which is generously supported by a gift from Dr. and Mrs. Lawrence Phillips, spans four colleges at UGA and covers multiple disciplines from seemingly unconnected academic disciplines. Using Zagreb, Motovun and Makarska as their central bases this year, the students are exposed to public health, Croatian culture and language, historic preservation principles and political conflict studies.

It is the only program offered at UGA that incorporates curriculum from four different colleges – the College of Public Health, the School of Environment and Design, Germanic and Slavic Studies and the School of Public and International Affairs – into one study program.

Carol Cotton, an academic professional in Health Promotion and Behavior at the College of Public Health, said the program's diversity is one of its greatest strengths.

"One of the most valuable things about the program is how we integrate it all," Cotton said. "We don't separate it, so it's not just a public health course. It's made so much richer by having four completely different colleges involved."

The participating students, despite their diverse academic backgrounds, remain together as a group for the majority of the program. As a result, they are exposed to areas of study they traditionally would not experience.

Cotton said the mutual learning is intentional, and not simply because it enables the group to bond during their time overseas. Despite the differences in the disciplines, the traveling faculty work to link the relationships between the four areas of study.

"We overlay all of these components so they know that you can't have one of these issues without another," Cotton said. "For example, you can't have a mil-

itary if you don't have a healthy population. And, when you have a military, you have a number of resources that are redirected to take care of it, and we look at how that reallocation impacts the overall population."

Additionally, Croatia proves to be a unique learning laboratory for students.

The nation is undergoing two massive societal and political changes that are not simply redefining it, but also providing an important educational opportunity for the students participating in the program.

First, the country is preparing to join the European Union, so there is ample work being done in advance of that key move. Second, and perhaps more challenging, is Croatia's transition from being a socialist state to a capitalist state. Under the old regime, health care was provided to all citizens and paid through taxation.

"Now, they're transitioning to this new, capitalist system where it's something they have to pay for, and that's new to them," Cotton said. "They have to deal with insurance, they have to deal with the health of refugee populations and they have to deal with the health of minority populations."

The myriad of challenges facing Croatia creates a tremendous learning opportunity for the students.

"This is an experiential trip," Cotton said. "We do not take our classrooms that we teach with at UGA and just plunk them down in Croatia. We don't believe in that, but we do believe in experiential learning."



Four faculty members and 30 students participated in the 2010 Croatia Study Abroad program. In this photo, the students pose at the ruins of a town in Dvigrad, Istria, Croatia that was abandoned due to the plague.



PHOTOS BY DOT PAUL

**At 102, Annie Mays Larmore has lived through two world wars and Neil Armstrong's moonwalk. She's participating in The Georgia Centenarian Study to help researchers understand the behavioral, nutritional and biological factors that have allowed her, and others, to reach their 100th birthday and beyond.**

## The Art and Science of Aging Gracefully

By Sam Fahmy

Annie Mays Larmore of Atlanta has lived through two world wars, the Great Depression, the civil rights movement, Neil Armstrong's moonwalk, and, most recently, the election of the nation's first African-American president. Clearly, the world has changed in her 102 years of life, but so has she. Larmore sums up her accumulated wisdom on aging with this oft-repeated admonition: "Grow old, but don't get old."

"To grow means that you accept change, adjust to change," she explained. And "growth implies activity. You must stay active—physically, mentally, emotionally and spiritually."

Centenarians such as Larmore are what researchers call the "oldest old," living well past the life expectancy of someone born in 2009 - 78 years. The Georgia Centenarian Study, based at the University of Georgia and now running for more than 20 years, has been learning from people such as Larmore some of the behavioral, nutritional and biological factors that have allowed her and others like her to reach their 100th birthday and beyond.

Unfortunately, most older adults don't fare as well as Larmore. But new insights into aging, in fields as diverse as nutrition, cognitive science, and housing, are helping to improve their lives.

"Older adults can have a very high quality of life," said Distinguished Research Professor Leonard Poon, director of the UGA Institute of Gerontology and principal investigator of

the Georgia Centenarian Study. "Being old doesn't necessarily mean being frail."

### A demographic time bomb

Demographically speaking, Georgia is a young state; just 10 percent of its population is over the age of 65, compared to the national average of 12 percent. But the fact that people 65 and older are the fastest-growing segment of the state's population means that tremendous challenges are shaping up. UGA demographer Doug Bachtel says the figure that is most telling is the state's age-dependency ratio, which is the number of people 65 and older divided by the number in the workforce. A low ratio means that the state has plenty of workers, relatively speaking, to support its dependents, so the load per worker is light.

Georgia's age-dependency ratio is 15 percent at present, though Bachtel expects that figure to rise. He notes that the counties comprising metro Atlanta and Athens have healthy ratios - between 8 and 13 percent - but rural areas, which have seen so many young people flee in search of jobs, have ratios of up to 45 percent.

One implication of Georgia's aging population is the state, which currently ranks 40th in the number of physicians per capita, will have to educate thousands more physicians. To help meet that need, UGA has partnered with the Medical College of Georgia to create the MCG/UGA Medical Partnership Campus in Athens.

"In addition to helping expand medical research in areas related to aging," said Barbara Schuster, the first dean of the Medical Partnership Campus, "I hope we can imbue medical students with the knowledge and skills to care for the healthy elderly as well as to help improve the lives of those with chronic illnesses."

### Healthful aging

A vital component of good health is proper nutrition, something that Mary Ann Johnson, the Bill and June Flatt Professor of Foods and Nutrition, is passionate about.

As we age, the skin becomes less able to synthesize vitamin D, while the stomach becomes less effective at secreting enzymes that help release vitamins, such as B12, in foods. Johnson's research has revealed that subtle deficiencies in vitamin D can reduce muscle strength and mobility in older adults, while deficiencies in vitamin B12 can result in poor cognition, elevated risk for heart disease, anemia, and hearing loss.

To share her findings with the people who can benefit the most, she and her graduate students conduct health-promotion programs across the state on nutrition, the benefits of exercise, and the management of chronic diseases such as diabetes.

Similarly, professor of kinesiology Elaine Cress works with seniors in Athens to develop exercise interventions that allow them to lead fuller lives. In a recent study, Cress found that older

adults can lower their risk of disability and increase the likelihood of maintaining independence by a whopping 41 percent just by participating in a walking exercise program.

One of the most feared aspects of aging is a gradual but inexorable mental decline that steals memories and, ultimately, the ability to function on one's own. Stephen Miller, professor and chair of UGA's Clinical Psychology Program, is combining traditional memory-assessment techniques with advanced brain-imaging technologies to better understand how changes in brain structure and function affect independence.

### Addressing social needs

Understanding the biological aspects of aging is a major focus of the UGA Institute of Gerontology, housed in the College of Public Health, but its researchers are also helping older adults manage the social aspects. Anne Sweeney, professor and head of UGA's Department of Housing and Consumer Economics, says that most people aren't prepared for the housing challenges that come with aging. In her research, she has found that universal design principles - such as step-free entrances and wide doors that accommodate wheelchairs - allow older adults to stay in their homes longer, while options such as manufactured housing provide more affordable homes.

Many of the UGA researchers studying aging are also involved in the Georgia Centenarian Study, based in the College of Public Health. The scope of the study is so broad, in fact, that it comes up often in conversations among researchers across campus who study aging. Since it began in 1988, the study has resulted in more than 100 peer-reviewed scientific publications, with plenty more to come.

Larmore became a participant in the study in 2005, motivated by her desire to contribute to society and by her belief that people aged 100 and older are a distinct group whose numbers are certain to grow. In many ways, she typifies the lifestyle habits and personality traits that are common among centenarians. As a librarian at Mercer University and later the Atlanta Public Libraries, she relished social interactions.

Upon retirement in 1973, Larmore became active in a gardening club, a stamp club, her college alumni association and other groups. She has wide-ranging interests and considers herself a spiritual person who prays and reads the Bible daily. She laughs heartily when telling stories about her great-grandchildren, who lovingly call her "me-ma."

Larmore eats "old-fashioned food," meaning plenty of fruits and vegetables and no fast food or junk food. She exercises daily by taking walks in her backyard and by doing 25 minutes of callisthenic-type exercises.

She's not without health problems, of course. She's had arthritis for the past 45 years and last year she suffered a heart attack. When Larmore turned 94, she made the decision to move in with her daughter.

"The thing I hated most was giving up my car keys and the privilege of going where I wanted, when I wanted," she said.

Even worse, she said, is that all the people she grew up with are now gone, leaving her behind like "the last leaf on the tree."

But Larmore, an optimist, said the good still outweighs the bad. Her long life, she said, has been a privilege that allowed her to realize her sense of purpose. When asked about that purpose, she didn't skip a beat: "To do as much good as I can, and to share myself and whatever I have with others."

Sam Fahmy is a science writer in UGA's Office of Public Affairs. (This piece was originally published in ugaresearch magazine, University of Georgia.)

### The Secrets to Healthy Aging

People often ask Leonard Poon, director of the UGA Institute of Gerontology and principal investigator of the Georgia Centenarian Study, if there is a secret to living to 100.

"There isn't any one secret," he said. "There are many paths to longevity and a lot of individual differences among centenarians. And I see that as good news because most people may then have a chance of reaching 100, depending on their strengths."

Poon's research, though, has found some commonalities among centenarians, which include:

- High levels of family and social support;
- An engaged lifestyle that includes volunteering, travel, and lifelong learning;
- A tendency toward a relaxed and stable personality;
- A personality that is dominant and allows people to stand up for themselves when the need arises;
- A cluster of genes that appear to promote longevity and protect against degenerative diseases such as Alzheimer's;
- A high level of spirituality that helps the individual cope with life's stressors;
- A tendency to eat breakfast regularly and consume more carotenoids from orange and yellow vegetables;
- Good problem-solving skills.

**Leonard Poon is a Distinguished Research Professor at the University of Georgia and the director of the Institute of Gerontology.**



# UGA Researcher Hopes for Best, Helps America Prepare for Worst

By Johnathan McGinty

Dr. Cham Dallas has testified in front of congressional panels, advised federal agencies, conducted mass casualty exercises in nearly all of Georgia's 150 hospitals, published volumes of research on nuclear war preparedness and given, by his estimate, more than 400 lectures on weapons of mass destruction.

Regardless of his audience, whether it's a collection of graduate students or Senator Joe Lieberman, the chairman of the U.S. Senate's Homeland Security Committee, he always tells them one thing: It's not a matter of if there will ever will be a WMD used on American soil, but when.

"I think it's approaching a certainty," said Dallas, the director of the University of Georgia's Institute of Health Management and Mass Destruction Defense (IHMD). "And it's not something that's much out of the way or considered to be a marginal opinion any more."

Dallas feels that within 10 to 20 years, a WMD, possibly a nuclear device, will be detonated in a major U.S.

city. His primary justification is that the rapid evolution of technology has made what was once deemed merely a possibility into something that is, by his assessment, inevitable.

"What we have is this technology becoming widely disseminated," Dallas said. "Let's say we have technology for DVDs, and that's a great thing. We want everyone in the world to have access to that since it improves the quality of life and boosts the world economy. But, when it comes to technology for WMDs, it's not [great]."

Understanding the threats posed to not just the United States, but the global community at large, has long been the driving focus of Dallas. Regarded as one of the nation's premier experts on mass destruction defense scenarios, he views challenges confronting the world today graver than those of the past 50 years.

This is largely due to the collapse of the traditional Cold War paradigm that dominated foreign policy thought for the latter part of the 20th century.

With two superpowers controlling the nuclear arsenals, the United States and Soviet Union relied on Mutual Assured Destruction as a deterrent to an armed conflict.

The rationale was simple: Despite their differing economic, political and social systems, both nations possessed a desire for self-preservation that made an exchange of nuclear weapons unacceptable.

The collapse of the Soviet Union permanently altered that balance. Additionally, in recent years, new nations have sought access to the nuclear club. According to Dallas, while the U.S. and Russia have recently agreed to reduce their existing arsenals, other areas of the globe are engaged in a vigorous nuclear arms race.

The key point of focus is on the Middle East and South Asia, where Pakistan and India currently have expanding nuclear arsenals, and Iran is desperately seeking to develop them. It's the persistence of the latter that is of most concern to Dallas.

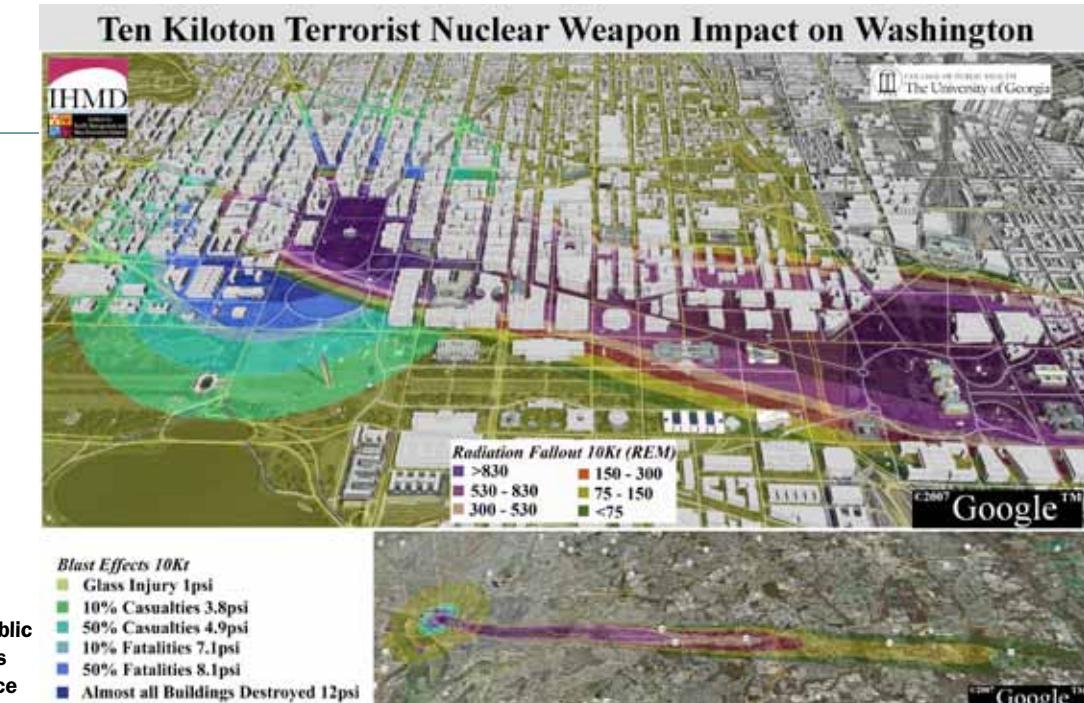
Iran has a radical Shiite Islamic government that is surrounded by Sunni Islamic states, and, given the ancient tensions between these two Islamic groups, it's a recipe for trouble. Dallas said that France, for instance, has recently sold key components of nuclear technology to Egypt, Saudi Arabia and other Sunni nations in recent years.

"The leaders in the Sunni nations are smart people, and they understand

Through the Institute of Health Management and Mass Destruction Defense, various first responders and medical personnel receive specialized training and simulations that equip them with the skills needed to respond to a possible attack.



**Dr. Cham Dallas, the director of the UGA IHMD, has prepared detailed disaster scenarios that assist policymakers and public health personnel. This projection suggests what would happen if a small nuclear device was detonated in Washington, D.C.**



that the major Shiite power, Iran, will be nuclear armed very soon," Dallas said. "It's been the same since the days of catapults and trebuchets, except this is a nuclear arms race now. When you get these kinds of passions, the threat to use WMDs is accelerated even more."

This includes the rise of Islamic extremist terrorist organizations, which Dallas noted take actions based on rigid ideological reasoning, thus making them a very dangerous threat.

"At some point, WMDs such as nuclear weapons, as well as other forms like biological and chemical weapons, will expand to a point where it reaches a group that is no longer constrained by superpower status or concerned with its cities being devastated," Dallas said. "There are groups of people who can use these weapons clandestinely, and it will simply be difficult to determine who they are."

Given this alarming reality, IHMD has placed its focus on providing the necessary training and preparedness research for those critical front-line responders responsible for homeland security and public health.

Dallas said more progress has been made on security than in public health. For instance, New York City has installed a vast network of radiation monitors throughout the city that can detect even the tiniest emissions.

This isn't to say there aren't deficiencies, and Dallas pointed to the physical and political challenges the federal government faces in securing the U.S./Mexico border.

From a public health standpoint, however, many of the same problems that existed prior to 9/11 remain. There are ample problems related to inter-agency communications as well as obvious physical barriers as well, such as one group of first responders using a different radio frequency from another group.

There are cultural challenges between the security and public health infrastructures as well – or, as Dallas referred to them, "the guys with guns and the do-gooders." He said the two groups are philosophically suited to do completely different things, yet it's vital they work together during times of crisis.

"One of our roles is to try and bridge these cultural gaps and get them to work together," Dallas said. IHMD and the College of Public Health are going to offer a graduate certificate in disaster management to those training for both areas, for instance.

Dallas has devoted a large portion of his research to the aftermath of the Chernobyl disaster, and his findings offer a wealth of information on what these responders will be dealing with should a nuclear attack occur.

"When we have a nuclear attack in a

city, we'll have hundreds of thousands of people coming up on our security perimeter," he said. "They'll be coming to seek help from our medical and public health personnel, and because of our Chernobyl experience, for example, we learned the first triage question we'll ask them when they reach the perimeter."

That question will lead to, in many cases, an unthinkable diagnosis. Based on the data from Chernobyl, Dallas and other researchers were able to determine that workers who exhibited symptoms of radiation sickness (nausea, vomiting and diarrhea) within 30 minutes of exposure had very little chance of survival. Those who didn't develop symptoms until after four hours, however, had markedly better chances of survival.

It's that type of information that can help make a difference.

"The curriculum we developed has now been presented to more than 60,000 medical and public health personnel across the country," Dallas said. "And, as I tell them, the most important people when those events do finally occur, are going to be the public health, medical care and security personnel."

"Those workers, in my opinion, will become the most critical people in our society in a crisis. The number of people we have trained in those areas are small, and that has to change as these crises become increasingly more likely."

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The talented students we recruit come from various regions, have diverse backgrounds, pursue wide-ranging interests and will excel in varied public health disciplines.

During their college experiences, these students have the opportunity to complete internships with major corporations like Georgia Power and Coca-Cola, as well as government agencies like the Centers for Disease Control and Prevention. Opportunities outside the classroom exist for these students not only in Georgia, but across the country in places like New York City and Washington, D.C., and abroad in Croatia, Peru, Israel and China.

These life changing opportunities would not be possible without the funding provided through gifts given by alumni and friends to the College of Public Health Support Fund.

Join me as an investor in the life changing experiences that we offer at the College of Public Health, and make a gift to the College of Public Health. It is only with the sustaining dedication and support of our alumni and friends that we can continue to give our students the opportunity to succeed.

## Tyson Turner: Physician in Training, Simultaneously Mastering Public Health Degree

By Cynthia Adams

"I grew up in the South, and I'm from Georgia. Anytime I see someone coughing on a bus or something, my ears prick up. It's a rare enough disease that the coughing aspect is not a real concern. While my studies on tuberculosis (TB) have caused me to be hyper-aware of people coughing around me, they've also illustrated to me (statistically) TB should not be my primary healthcare concern."

Meet Tyson Turner, 26, a man on a speeding train headed straight to success. Turner's about to become a double Dawg this year, and he just wrapped up his MD at Duke University School of Medicine. Turner's epidemiological research focused on the incidence of tuberculosis in Georgia.

In addition to his degree from Duke, Turner earned his MPH in epidemiology in 2009 at UGA. All the while, he maintained a 4.0 grade point average at UGA, where he was a HOPE Scholar and graduated summa cum laude in 2006 with a bachelor's in cellular biology and biochemistry.

He said his UGA education proved to be a great foundation for medical school.

"It allows you to have a little more time to catch your breath and not feel overwhelmed," Turner said. "It's such a sea-change in the overall atmosphere, from undergraduate to professional school. And, there are many people from all over the country who come (to Duke) for medical school. I felt just as prepared, and my educational background (at UGA) was a great preparation."

UGA: First of all, how did you balance earning two advanced degrees at once? At different institutions?

Turner: Duke's medical school curriculum allows its students to use their third year of medical school in a wide variety of scholarly pursuits; students take this year to obtain other degrees (e.g. MPH, MPP, MBA, JD, etc), do research, etc.

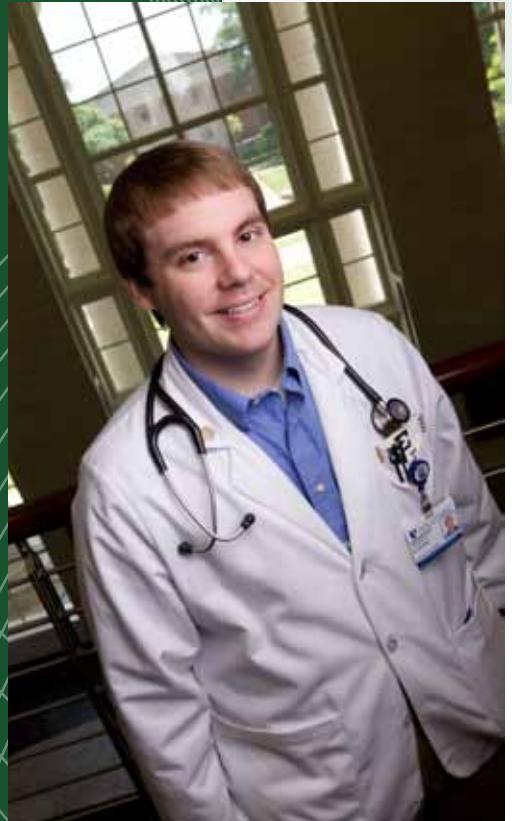
The vast majority of medical schools devote the first two years to learning the basics in the classroom. The third and fourth years of medical school are spent in rotations. Duke wants everyone in the third year to do some kind of scholarship work and research.

One of the most difficult parts of my final year at UGA was managing the logistics of trying to obtain the MPH in only one calendar year. Dr. Robert Galen, a senior associate dean at the College of Public Health, was an invaluable resource. He structured my schedule so that I was able to complete all of the required coursework in the limited timeframe.

UGA: Secondly, why would you attempt this? Do you plan to become an academician?

Turner: One of the main reasons I did this is that so much of medicine is about treatment and is one-on-one – exactly what you need for a patient who gets sick. But a lot of health issues need to be looked at from a different per-

*Continued next page*



**Tyson Turner, a recent graduate of the College of Public Health, pursued and earned a pair of degrees from UGA and Duke University at the same time.**

spective, one that is population-based. I'm hoping that year of graduate study will give me that frame in the back of my mind.

I'm really interested in doing outcome research, which looks at population outcomes for different treatments and interventions. Epidemiology fits with that very well. But I definitely want to practice clinical medicine.

UGA: How did you find returning to UGA for graduate school after experiencing Duke?

Turner: The academic load is definitely difficult, particularly at times such as finals when multiple courses have assignments due, but the faculty at the College of Public Health was such a help by working with me whenever necessary to accommodate my (at times) cramped schedule. Also, being in medical school did wonders for my efficiency in regards to studying, writing papers, etc., and many of the time-management skills that are used there were a major help to me.

UGA: Your graduate work at UGA concerned the incidence of tuberculosis in Georgia. Should Georgians be concerned about tuberculosis?

Turner: Every case of tuberculosis diagnosed by a physician has to be reported to the Division of Public Health at the State level, like anything with public health implications. The way TB is treated now is, the patient must have a long course of therapy; and they are taking the medication.

In general, TB is still a disease that kills but not like the major killers (e.g., cardiovascular disease, stroke, etc.) TB has resurgence once people get older and have a compromised immune system due to HIV, diabetes, mellitus, cancer, etc.

UGA: What was your research concern?

Turner: Professor Christopher Whalen and I partnered with the Georgia Division of Public Health's tuberculosis branch to analyze the state's tuberculosis database (each time a case of tuberculosis is diagnosed in Georgia it must be reported and recorded in this State-managed database). Using this data, we looked into some of the epidemiological factors associated with tuberculosis diagnosis, including a description of the cases based on age, sex, race/ethnicity, etc.

Our main focus, though, was to try to find out why we are seeing an increase in tuberculosis cases in the foreign-born population in Georgia. We're thinking it could be due to either increased immigration levels (i.e. more cases just because we're having more immigrants into the state) or due to "ongoing transmission" in foreign-born communities once they immigrate into the state. We've also tried to look at the molecular "typing" of the TB strains (i.e., how we identify which strain of TB each individual contracts) to see how often TB strains are unique versus how often they are shared between many different cases across the state.)

UGA: When did you realize you wanted to become a physician?

Turner: I grew up in Lincolnton, Ga., which is a small town on the Georgia/South Carolina border approximately 40 miles north of Augusta. I'm not sure when I first decided to apply to medical school; it was always something that was in the back of my mind, and I suppose eventually it just made its way to the forefront. (Not enthralling, I know.) Looking back on it, I suppose the profession just made sense for me: I've always enjoyed science and have been intrigued by human health and illness, and medicine seems to be the best way for me to make a positive impact on others. No one in my family is a physician, but I did have a fair amount of exposure to the healthcare field through my father and sister, both of whom are pharmacists, and so I suppose I was attracted to the field in that way, too.

(This article first appeared in the Summer 2009 issue of the Graduate School Magazine.)

# Global Health Symposium Connects UGA with the World

By Johnathan McGinty

Richard Schuster is a passionate believer in the core mission of the University of Georgia's Center for Global Health, and it is that passion which drives research and academic pursuits.

The Center for Global Health, a component of the College of Public Health, has a clear purpose built upon identifying the best practices in health care, disseminating those practices across the globe and then encouraging their adoption.

Schuster said the Global Health Symposium, sponsored by the Center for Global Health, is a key component in disseminating that research and information to health care providers and also the public at large. This year's symposium, held April 8-9 at the Coverdell Center for Biomedical and Health Sciences, focused on disease and health in East Africa.

"Interest in global health has exploded both in the U.S. and around the world," Schuster said. "The reason is that globalization is having a profound impact everywhere in the world. And to reference Thomas Friedman's famous book, the world really is flat, and it doesn't matter where you are anymore, we're all in contact with each other."

Schuster said the assumption that the best practices in health care are uni-directional, or that they simply originate in the U.S. and are spread out through the rest of the world, is a simplistic approach. For instance, there are vast cultural and societal challenges when it comes to adapting and adopting some of those models.

Natalie Arford, a research coordinator at the Center for Global Health, noted that those cultural



**Richard Schuster**

of UGA's Christopher Whalen, he has established what Schuster deems a true partnership with the African institution.

Thanks to a multi-year grant from the National Institute of Health, the partnership enables Makerere to conduct mutual research with Dr. Whalen and his team at the College of Public Health and regularly exchange students with UGA.

"In globalization, we often talk about the brain drain of people who come to America, highly educated, from around the world and stay here," Schuster said. "This is an example of people who are highly educated, who come here and get even more highly educated, and then bring those skills back to their native country."

Schuster said next year's symposium will focus on a new bilateral relationship between the College of Public Health and the University of Haifa in Israel. Slated for fall of 2011, the event currently is being planned by faculty at UGA and Haifa, and it has earned a sponsorship from the Israeli government.

Next year's symposium will also be supported by a private gift from Dr. Harold S. Solomon (BS '61) and his wife, Milly Pincus Solomon, who also attended UGA.

To be included on the mailing list to learn more about next year's Global Health Symposium, please contact Kate O'Reilly at 706-542-2590 or [krl@uga.edu](mailto:krl@uga.edu).



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leadership in public health in the state of Georgia, for the nation, and around the globe.

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