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Vanderbilt **Medicine**

WINTER 2013



Making a World of Difference

Stories of hope and healing

IT'S A SMALL WORLD

The Shalom Foundation opened the Moore Pediatric Surgery Center in Guatemala in March 2011 with support and encouragement from Monroe Carell Jr. Children's Hospital at Vanderbilt. The urology team, led by John Brock, M.D., Children's Hospital surgeon-in-chief and surgery team leader, below with a patient, was the first team to use the facility. Brock and Children's Hospital are important leaders for The Shalom Foundation's ongoing efforts to host teams at the Moore Center from across the United States.



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VanderbiltMedicine

Vanderbilt Medicine is published by Vanderbilt University Medical Center in cooperation with the VUMC Office of News and Communications.

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:: on the cover

Pediatric anesthesiologist Mark Newton, M.D., who lives and works in Kenya, and countless others from VUSM have devoted their lives to education, patient care and research across the globe. Inside this issue are a few of their stories.



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Look for these stories and multimedia features online at mc.vanderbilt.edu/vanderbiltmedicine.

VIDEO: Super Foods: Vanderbilt University School of Nursing's nutrition expert Jamie Pope dishes on foods that can help you change your health odds.

VIDEO: Medical Mystery: Go behind the scenes to the lab that became ground zero in the medical puzzle surrounding the deadly outbreak of fungal meningitis.

VIDEO: Healthy Inspiration: Meet the Vanderbilt researchers and their community partners who are inspiring young families to participate in GROW, a community-based obesity prevention trial recently launched in Nashville.



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BY JEFF BALSER, M.D., PH.D.
Vice Chancellor for Health Affairs
Dean of Vanderbilt University School of Medicine

I am always filled with a deep sense of pride when reminded of the selfless commitment demonstrated by our alumni, faculty, staff, students and residents to improve lives not only here in our own nation but around the globe. The individuals in this issue's cover story, Making a World of Difference, along with so many others associated with our great institution, are working to improve the lives of medically underserved populations. Vanderbilt is impacting lives by changing reality for people around the world – from Africa to Asia to South America.

Through these efforts, our clinicians gain valuable experience, not only in the practice of hands-on medicine, but in the variety of other cultures and ways of living. Some choose to commit their lives to working overseas, caring for people with few options. Others make regular journeys abroad, reconnecting with old friends and making new ones, always seeking to make a difference in the lives of people around the world.

At a time when young people are particularly eager to reach out and embrace the needs of the underserved, here in our region and around the world, our elected officials are considering legislation that would significantly reduce support for physician training at Vanderbilt and at medical schools across the United States.

Currently, we have more than 900 physicians in 78 different residency and fellowship training programs. For nearly 40 percent of these programs, Vanderbilt remains the only institution in Tennessee training physicians in specialty areas where significant shortages already exist – in our home state and across the country. In the United States physician shortages are

projected to reach 90,000 by 2020, due in part to the aging of our population.

So it is ever more important for the health of our own nation, as well as the underserved populations around the world, for Vanderbilt and other leading academic medical centers to continue to train the next generation of physicians. The generous support of our alumni and friends for our outstanding training programs will play an even more critical role in the future.

This issue of *Vanderbilt Medicine* resonates with a commitment to service, for the present and the future, through stories that highlight the intellectual and inquisitive spirit of our community. For generations, Vanderbilt has imparted these timeless values to its students and trainees.

Also in this issue you will find:

- A story about a new approach to the treatment of sleep apnea that is having significant impact on the safety of hospitalized patients.
- New ways to use technology such as apps, gadgets and online tracking tools to help patients both lose weight and better maintain weight loss.
- A profile of Maj. Gen. Steve Jones, M.D., a 1978 graduate of the Vanderbilt School of Medicine who credits the guidance he received from Tom Brittingham, M.D., former director of the Residency Program, for preparing him for his role running the nation's leading veteran's hospitals.

The richness of these stories reflects an extraordinary institutional culture with core values of service to others. I pledge to you our continued efforts to grow this legacy, and to continue to educate the nation's leaders about the role that academic medical centers such as Vanderbilt play in enriching lives, in communities near and far. **VM**

Environmental toxin provides endometriosis clues

Endometriosis, a common and debilitating condition that can cause infertility and severe pelvic pain, occurs when the cells that line the uterus (endometrium) grow outside the uterus. Coordination of hormones such as estrogen and progesterone and other signaling molecules, like the endocannabinoids, is critical to normal functioning of the endometrium.

Kevin Osteen, Ph.D., professor of Obstetrics and Gynecology, Kaylon Bruner-Tran, Ph.D., associate professor of Obstetrics and Gynecology, and colleagues are investigating whether exposure to environmental toxins, like dioxin, may disrupt the hormonal and chemical signaling in the endometrium, and potentially contribute to endometriosis.

In the October 2012 issue of *Fertility and Sterility*, the investigators report low levels of expression of the endocannabinoid receptor CB-1R in tissues from women with endometriosis in contrast to its abundant expression in healthy endometrium. Using cultured endometrial cells, they found that dioxin exposure inhibits the ability of progesterone to induce CB1-R expression.

Since progesterone and endocannabinoids are critical to pregnancy, these findings suggest that environmental toxins like dioxin may contribute to endometriosis-related infertility by disrupting endometrial response to progesterone.

The research was supported by grants from the National Institute for Environmental Health Sciences (ES014942), the National Institute for Child Health and Human Development (HD052666) and the National Center for Research Resources/National Center for Advancing Translational Sciences (RR024975) of the National Institutes of Health, and The Endometriosis Association. **VM**

- MELISSA STAMM



ISTOCKPHOTO.COM

Green tea for failing hearts?

Green tea has received increasing attention for its potentially beneficial effects for cardiovascular health. Recent studies have suggested that the major organic antioxidant compound in green tea, EGCG, increases cardiac contractility, but the molecular mechanisms responsible for this effect are unclear.

Björn Knollmann, M.D., Ph.D., professor of Medicine and Pharmacology, and colleagues report in the November 2012 issue of *Molecular Pharmacology* that EGCG increases the calcium available for contraction, which increases the force of contraction, by modulating the function of calcium-handling proteins. They demonstrate that EGCG increases calcium loading into the sarcoplasmic reticulum (SR, the cell's internal calcium storage area), activates SR calcium release channels (ryanodine receptors) and inhibits proteins that pump calcium out of the cell (sodium-calcium exchangers).

These newly recognized EGCG actions occur at concentrations that are relevant for human consumption of green tea and may provide a novel therapeutic strategy for improving contractile function in heart failure. The authors caution, however, that EGCG could increase the risk for abnormal heart rhythms.

This research was supported by grants from the National Heart, Lung, and Blood Institute (HL088635, HL071670) and the National Institute of Environmental Health Sciences (ES004699) of the National Institutes of Health, and from the American Heart Association. **VM**

- LEIGH MACMILLAN

Collaborative effort focuses on pediatric traumatic brain injury

Vanderbilt's Bill Wilkerson Center and the Department of Hearing and Speech Sciences are offering new interdisciplinary outpatient programs for children ages 3 to 21 who have experienced a traumatic brain injury (TBI).

After a brain injury, a child may have deficits in attention, memory, language and information processing and impaired judgment and reasoning, which can influence his or her ability to interact in social and school environments. In addition, the child may have significant physical challenges, including balance problems.

Challenges that arise for children who have experienced a TBI may be immediate or emerge as the child continues to develop, so the need for rehabilitative services may change as the social and academic demands of the child's environment change.

The program's interdisciplinary team will support the child's 'world,' which is at home and, in many cases, returning to a school environment. Schools are the largest provider of services for a student, and this expanded program will directly support the educator as well as the family, said Project BRAIN Director Paula Denslow.

"TBI is unique to each person, and signs can be visible or hidden. Therefore, all services must be customized to meet that person's need," said Denslow. "The new pediatric TBI program will be able to support not only the child who is injured, but do so alongside his/her family. For a family to feel they are valued as a part of the process through a sometimes lengthy recovery can make all the difference in the world." **VM**

- CRAIG BOERNER

Special lenses help restore physician's fading vision

Camiron Pfennig, M.D., has spent the last five years living out her dream as an Emergency Department physician and director of Undergraduate Medical Education at Vanderbilt.

Her career was in peril because of her rapidly fading eyesight. When Pfennig was 15, she was diagnosed with keratoconus, a thinning disorder of the cornea that causes distortion and reduced vision. The corneal abnormality can affect simple tasks like driving, watching TV and reading. For Pfennig, the loss of independence was making her life miserable.

In the early stages of the disease, vision problems are often corrected with glasses or soft contact lenses. As it progresses, patients are often moved into rigid, gas-permeable lenses. Advanced keratoconus can require corneal transplantation.

"It was getting to the point where my eyes were ruining my life," said Pfennig. "I was trying to decide whether I should go ahead with the transplant or try something else. I was running out of options."

Pfennig was near giving up when she walked into Jeffrey Sonsino's office at the Vanderbilt Eye Institute. Sonsino, O.D., assistant professor of Ophthalmology, is the director of the Scleral Lens Clinic, the only dedicated scleral lens practice in the region. Scleral lenses are custom-made, large-diameter, rigid gas-permeable lenses that are twice the size of a standard rigid gas-permeable lens. The larger-sized lenses rest on the white of the eye, or sclera, unlike standard lenses that rest on the cornea.

Scleral lenses form a chamber on top of the cornea filled with saline solution, constantly bathing the cornea in fluid. It acts as a liquid bandage to help treat dry or diseased corneas and masks irregularities of the cornea in an effort to improve vision.

It also protects the cornea from exposure to air and the rubbing effects of blinking. While the fluid acts like a cushion, it also provides oxygen to the cornea.

Just days after her final lens adjustment, Pfennig competed in an Ironman competition — one of her lifelong goals.

"During the entire 14 hours of the race I was thanking God for these scleral lenses," she said. "It was one of the most incredible things I've ever done. I even finished the race well under my goal time." **VM**

- JESSICA PASLEY



STEVE GREEN

Camiron Pfennig shows the difference in size between a scleral lens, left, and a standard contact lens.



UNC, Vanderbilt discover a new live vaccine approach for SARS and novel coronaviruses

Rapid mutation has long been considered a key to viral adaptation to environmental change. But in the case of the coronavirus responsible for deadly severe acute respiratory syndrome (SARS), collaborating researchers at the University of North Carolina and Vanderbilt University have found that accelerating the rate of mutations cripples the virus's ability to cause disease in animals.

In addition, they say this finding may allow scientists to explore a new option for creating safer live vaccines.

A collaborative study, published Nov. 11, 2012, in *Nature Medicine*, demonstrates a SARS-coronavirus, altered to lack the ability to "proofread" (correct mistakes in replication), begins to mutate much more rapidly and becomes unable to cause disease in mouse models. In effect, the alteration creates a profoundly weakened or attenuated SARS virus.

This work may offer reassurance at a critical time. Public attention was recently heightened regarding a novel human coronavirus that sickened at least two with respiratory and kidney disease, killing one in the Middle East. The SARS outbreak in 2002 and 2003 caused 50 percent mortality in older adults. A rapid and effective international response ended the outbreak in just four months.

The researchers' aim is to better understand how coronaviruses, which also cause the common cold, evolve and spread between species.

Coronaviruses are RNA viruses known to have the largest genomes in the RNA viral world. It is now understood that the ExoN proofreading protein allows coronaviruses to maintain their expanded genomes, with many proteins evolved to help them survive and spread. But deactivation of ExoN creates a particularly enticing potential approach to vaccine design.

The study is the culmination of more than a decade of collaboration between the laboratories of Mark Denison, M.D., Craig-Weaver Professor of Pediatrics and professor of Pathology, Microbiology & Immunology at Vanderbilt University School of Medicine, and Ralph Baric, Ph.D., professor of Microbiology, Immunology and Epidemiology at the University of North Carolina at Chapel Hill's Gillings School of Global Public Health. **VM**

- CAROLE BARTOO

Study links rare genetic marker to brain cancer

Glioma is the most common and lethal type of brain tumor, and now investigators from Vanderbilt-Ingram Cancer Center and three other cancer centers have identified a link between a rare genetic variant and the risk of developing glioma. The variant also appears to improve the odds of survival among glioma patients.

Reid Thompson, M.D., William F. Meacham Professor and chair of the Department of Neurological Surgery, was one of the co-authors of the paper that was published online in June 2012 in the *Journal of Medical Genetics*.

The study — one of the largest epidemiology studies ever done for glioma — was led by Thompson's former Vanderbilt colleague Kathleen Egan, Sc.D., interim program leader of Cancer Epidemiology and vice chair of the Department of Cancer Epidemiology, Moffitt Cancer Center, Tampa.

The researchers studied patients age 18 and older who had recently been diagnosed with glioma.

The investigators genotyped 566 glioma patients and 603 control subjects, looking for a rare single nucleotide polymorphism (SNP or "snip") known as rs78378222 in TP53, a tumor suppressor gene.

The SNP interferes with the TP53 signal and has been linked to several forms of cancer.

The researchers found that participants who carried the rare SNP variant were 3.5 times more likely to develop glioma.

However, when the investigators examined the variant's role in patient survival they found a 50 percent reduction in death rates for carriers of the variant.

The study was the first to confirm a rare susceptibility variant in glioma cases. **VM**

- DAGNY STUART

Study ties early menopause to heart attack, stroke

Women who experience early menopause are more likely to have a heart attack or stroke than women whose menopause occurs at a later age, according to a new study by Melissa Wellons, M.D., assistant professor of Medicine in the Vanderbilt Division of Diabetes, Endocrinology and Metabolism.

Wellons conducted the research while working at the University of Alabama-Birmingham and it is published in the October 2012 issue of *Menopause: The Journal of The North American Menopause Society*.

She said the study is especially important because cardiovascular disease is the leading cause of death in U.S. women.

"My hope is that getting this message out will motivate women with early menopause to engage in the lifestyle and medical strategies known to reduce risk of cardiovascular disease — like controlling cholesterol, blood pressure and excess weight and by exercising," Wellons said.

The study looked at 2,509 women enrolled in the Multi-Ethnic Study of Atherosclerosis (MESA), with 693 reporting either surgical or natural early menopause before age 46. Women with early menopause were more often smokers, had diabetes and had a higher average BMI.

Within the study, early menopause in European, African-American, Hispanic and Asian women doubled the risk for cardiovascular disease when compared to groups experiencing menopause later in life.

"This is an observational study, so my colleagues and I can't conclude that early menopause is the cause of future cardiovascular disease," Wellons said.

"But our findings do support the use of age at menopause as a marker of future heart and vascular disease risk. Clinicians should consider asking questions about menopause when collecting a female patient's medical history." **VM**

- CRAIG BOERNER



FILE PHOTO

Plans announced for the Monroe Carell Jr. Children's Hospital Vanderbilt at Williamson Medical Center

Williamson Medical Center (WMC), one of Vanderbilt University Medical Center's affiliates, announced plans to expand its facility through construction to include upgraded surgical suites and an adjoining tower for pediatric services to be built adjacent to WMC's existing emergency department.

The proposed expansion includes a three-story pediatric tower, with two floors of space to include a pediatric emergency department, located in the tower's first floor, a 12-bed pediatric inpatient unit and four pediatric observation beds, which are planned to be located in the tower's third floor.

The new pediatric tower will bear the name, the Monroe Carell Jr. Children's Hospital Vanderbilt at Williamson Medical Center.

The construction is part of WMC's planned growth strategy, which also includes additional space within the new tower for future expansion of the Medical Center's Labor and Delivery Department.

As a result of the strategic affiliation agreement signed in 2011 between WMC and VUMC, the new pediatric tower will provide a collaborative approach to care between Williamson Medical Center and Vanderbilt physicians and staff.

"Our affiliation with Williamson Medical Center created this important opportunity to expand the scope of pediatric services in Williamson County," says C. Wright Pinson, MBA, M.D., deputy vice chancellor for Health Affairs for Vanderbilt University and CEO of the Vanderbilt Health System.

With Williamson Medical Center's Emergency Department already treating more than 6,000 children annually, hospital officials saw a growing need for increased services.

"This valuable affiliation will directly address the growing need for pediatric health care in the area, and deliver convenient access and compassionate, family-centered care to the community's doorstep," said Luke Gregory, chief executive officer of Children's Hospital.

"In addition, the facility will be a great resource for the more than 3,000 Vanderbilt employees who live in Williamson County and are enrolled in the Vanderbilt Health Plan," said Gregory.

WMC's multi-phase, multi-year project will mark the first major campus expansion in eight years and the second time since moving to its current location in 1986. **VM**

- CHRISTINA ECHEGARAY

METHOD MAY REFINE PERSONALIZED TRIALS FOR CANCER THERAPY

BY MELISSA STAMM

A new tool to observe cell behavior has revealed surprising clues about how cancer cells respond to therapy, and may offer a way to further refine personalized cancer treatments.

The approach, developed by investigators at Vanderbilt-Ingram Cancer Center, shows that erlotinib — a targeted therapy that acts on a growth factor receptor mutated in some lung, brain and other cancers — doesn't simply kill tumor cells as was previously assumed. The drug also causes some tumor cells to go into a non-dividing (quiescent) state or to slow down their rate of division.

This variability in cell response to the drug may be involved in cancer recurrence and drug resistance, the authors suggest.

The new tool, reported Aug. 12, 2012, in *Nature Methods*, may offer ways to improve personalized cancer therapy by predicting tumor response and testing combinations of targeted therapies in an individual patient's tumor.

In the personalized approach to cancer treatment, a patient's tumor is analyzed for a set of mutations to which there are matching drugs that act on those mutations.

This approach has worked rather well for many cancers that carry specific mutations, said senior author Vito Quaranta, M.D., professor of Cancer Biology.

"The genetics is well understood, the clinical effect is understood and the chemistry behind the therapy is understood. But there is a missing piece," said Quaranta. "Believe it or not, what is actually not understood is how cells respond to these drugs, what is actually happening."

The prevailing view has been that targeted therapies kill all the cells harboring a particular mutation.

But even if the tumor is composed entirely of genetically identical cells — which is unlikely — a drug will not affect all cells the same way, Quaranta explained.

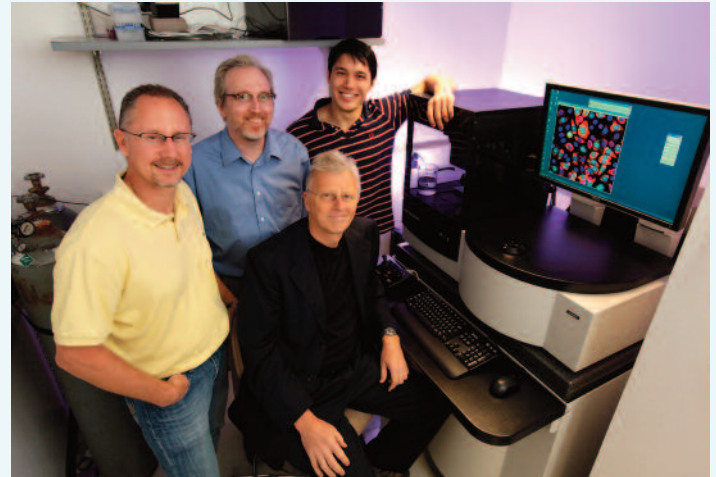
"Some of these cells may die, some may just stop dividing and sit there (called quiescence), and some may keep dividing, but more slowly."

However, no current tests can provide an accurate, detailed picture of cell behavior needed to understand tumor response to drugs.

So, the investigators, led by first author Darren Tyson, Ph.D., research assistant professor of Cancer Biology, combined powerful automated, time-lapse microscopy with analytical tools and software they developed.

Using these techniques, they could capture the behavior of lung cancer cells every six to 10 minutes for up to 10 days.

As they expected, the targeted therapy erlotinib killed some cells, while others became quiescent. They observed that the drug



ANNE RAYNER

Vito Quaranta, M.D., seated, and colleagues, from left, Darren Tyson, Ph.D., Shawn Garbett and Peter Frick, are using a new tool to observe how cancer cells respond to therapy.

even affected genetically identical cells (cells that arose from the same parental cell) differently.

"These cells are clearly genetically identical, as identical as they can possibly be because one cell just divided into two, but you get completely different responses: one dies and the other one doesn't," said Tyson. "This suggests that there are other things besides genetics that have to be taken into account."

What those other factors are remains unclear, but the investigators are conducting follow-up experiments to determine what might underlie this differential response.

"And presumably, it is those (quiescent) cells that ultimately result in tumor recurrence," said Tyson.

Quaranta and colleagues hope to take the technology into small clinical trials to test whether it can predict a patient's response to therapy.

"We think that we might be able to forecast what the response is going to be," Quaranta said. "We can take samples from the tumor, subject them to this assay, and since we're looking at response over time, we will have a rate of response."

This could tell oncologists how long a patient's tumor will respond to a given therapy before it recurs. Such information could also help determine which patients will require more aggressive treatment — and Quaranta believes the assay will be able to test combinations of drugs on a patient's tumor cells to find the right combination to induce a response.

"We're hoping that this assay — or some implementation of this assay — will eventually work like a personalized clinical trial," Quaranta said.

Graduate student Peter Frick and data analyst Shawn Garbett were co-authors on the paper.

The research was supported by a grant from the National Institutes of Health/ National Cancer Institute Integrative Cancer Biology Program (CA113007). **vm**

Medical School Shaped Military Career

Commander cites Vanderbilt experience as foundation for success

WRITTEN BY **CHRISTINA ECHEGARAY**
PHOTOGRAPH BY **DANIEL DUBOIS**

In the spotlight on Capitol Hill in Washington D.C., Maj. Gen. Steve Jones, M.D. '78, finds himself poised, confident and prepared for any inquiry.

Jones holds a critical and prestigious post as commander of the Joint Task Force National Capital Region Medical, charged with providing medical care to all the branches of the military in the medical facilities around Washington D.C. Part of his job has been to ensure that all the services provided at the former Walter Reed Army Medical Center, which officially closed in 2011, were realigned into the new Walter Reed National Military Medical Center and Fort Belvoir Community Hospital.

In many ways, medical school was tougher, he said. As a highly decorated and accomplished commander for the National Capital Region Medical, Jones looks back fondly on his challenging academic career – instrumental in his current role to help shape the future of health care for soldiers and their families.

“My interest in academics awakened here at Vanderbilt,” Jones said. “So many of the lessons I learned, I was able to apply later in the Army.”

During lectures in the amphitheater of the old Vanderbilt University Hospital, and presentations to the faculty, Jones honed his skills under pressure in front of peers. Saturday morning could be particularly tough as students were charged with presenting a patient’s medical history and facing an inquisition from Tom Brittingham, M.D., former director of the Residency Program.

“You had to have done your homework. You had to know your material,” said Jones. “It was pretty intimidating at times but that prepared me well for this job. I’m often questioned by the senior leaders of the Department of Defense, four-star generals, admirals, and members of Congress. They can be just as tough, but it’s nothing compared to what I went through during medical school.”

Jones, the second of five children, was born into a military family in Fort McPherson, Ga. His father Col. Tom Jones, a native of Decherd, Tenn., served in the U.S. Army, moving his family around for various posts, including West Point, Okinawa, Japan, and finally settling down in Arlington, Va. The elder Jones was drafted during World War II, remaining in the Army while he obtained his law degree and became a Judge Advocate General (JAG) attorney.

“I always wanted to be in the Army,” Jones said. “I grew up on Army bases and it never occurred to me not to join.”

As a senior at Washington Lee High School in Arlington, he decided he also wanted to pursue medicine, part of his desire to help people.

Upon applying to colleges, Jones recalled his father’s tales about Vanderbilt. As a boy during the 1930s, Tom Jones took a train from his home in Decherd to Nashville, where he would watch the Commodores’ football team play. His mother traveled with him waiting at a corner store until the game ended.

His father spoke highly of Vanderbilt

and the quality of the medical school, and Jones heard the same from cousins when he visited Tennessee. A trip to Vanderbilt, where his oldest brother, John Thomas Jones Jr., was an undergrad, sealed the deal.

“After visiting my brother in the Engineering School and seeing the great quality of life for undergraduates, I decided to apply for admission to the College of Arts and Science,” Jones said. “My father was pleased that I turned down an appointment to West Point, where he went to school, and chose to go to Vanderbilt instead.”

As an undergraduate, majoring in chemistry, Jones had little time to play. When he wasn’t studying, he was busy with the Army Reserves’ Officer Training Corps (ROTC).

“I came here with the goal of getting into Vanderbilt’s medical school, so I studied hard,” Jones said. “I knew the grades I needed to have and I applied myself to get those grades. That was my first priority.”

Jones also anticipated he would practice medicine in the Army during the Vietnam War, happening while he was in school. But the war ended his senior year of college. He had already applied early decision to Vanderbilt’s School of Medicine and been accepted.

Those formidable years of medical school helped shape and influence Jones as the physician and leader he is today. Brittingham played a significant part.

“He is the individual who really taught us to focus, to pay attention to

detail. He taught us respect for patients,” said Jones. “He emphasized respect for every patient regardless of who they were. We were told to never sit on a patient’s bed because in the hospital that is the only thing that is theirs.”

Medical school is also where Jones met his wife, Ret. Col. Kristen Raines, who now works for the Accreditation Council for Graduate Medical Education. One day, he mustered up enough courage to sit down to eat lunch with her.

After graduation, Jones headed to the former Walter Reed Army Medical Center, in Washington D.C., where he completed his residency in internal medicine and cardiology.

Jones would parlay his passions for caring for people and military service into numerous posts following his residency. In Honduras he commanded a medical team on a humanitarian mission which helped the country achieve a 90 percent immunization rate for children. As a deputy commander at Fort Bragg, N.C., he cared for soldiers injured in the battle of Mogadishu, Somalia, an incident documented in the film “Black Hawk Down.” He led medical humanitarian assistance operations in Afghanistan during the early years of the war, and later served on a team which uncovered evidence of torture in prisons run by the Iraqi police.

He also served for a time as hospital commander at Fort Campbell, Ky., just before the start of the Iraq war. He arranged with Vanderbilt University Medical Center to have his surgeons do rotations in the trauma center to prepare for deployment. When the 101st Airborne Division departed, he helped care for the families who remained behind. “That was quite a task. That was one of the lessons I learned here at Vanderbilt – how to take care of families, how to look after people.”

The National Capital region, where he now works, has more than 280,000 eligible beneficiaries.

Treating wounded warriors returning from the battlefield is his first priority.



MAJ. GEN. STEVE JONES, M.D.

Many have sustained amputations, psychological injuries, or traumatic brain injury (TBI).

“The soldiers we are caring for now have served in combat three, four or five times and experience the cumulative stress of multiple deployments,” Jones said. “Their families have been through four and five deployments as well and we also take care of them.”

The Military’s National Intrepid Center for Excellence is setting up a network of clinics for research and treatment

of TBI and psychological injuries. Fort Campbell and Vanderbilt are included.

“There has always been a strong tie between Vanderbilt and the hospital at Fort Campbell,” Jones said. “Fort Campbell will see 2,500 to 3,000 patients a year coming through their new center. They provide outstanding clinical care, but the research and academic components are equally important. The depth and academic strength of Vanderbilt’s faculty will be critical to advancing the treatment of traumatic brain and psychological injuries.” **VM**



MAKING A WORLD OF DIFFERENCE

"It is often said that Africans excel in relationships. I have discovered over the past two years that it is true. I cherish the relationships that are slowly building here in Kijabe; I feel a part of the staff now, and we have a wonderful time talking, teasing, swapping Swahili...It is a country of incredible beauty not only in its mountains, plains, valleys, lakes, but especially among its people."

These words are from a blog kept by Leland Albright, M.D., HS '70, and his wife, Susan, who are living in Kijabe, Kenya, treating children with neurosurgical conditions. Ask any Vanderbilt University School of Medicine faculty member, medical student or alumnus who has devoted his or her time to work in the world's most impoverished places why they do it, and the answer is usually the same: the people.

From Africa to Asia to South America, Vanderbilt is represented by the hundreds of dedicated men and women who leave the comfort of home to endure danger, political strife, homesickness, language barriers and sub-standard living and working conditions for the greater good. Some feel they are called by God; others feel it is simply the right thing to do. Some have moved their families to remote villages and put down roots, while others make yearly treks to see old friends and to share their expertise with local health care providers.

Fourth-year VUSM student, Matt Gartland, director and co-founder of Harambee For All Children, summed it up this way on a recent return trip to Kenya: "Touching down in Kenya was like coming home. Pulling out of the airport I caught the familiar smell of red clay and it was like I hadn't been gone even a day."

Inside are a few of their stories. There are, and will be, many more to tell as Vanderbilt continues to leave its mark on the world.

WRITTEN BY **KATHY WHITNEY**
PHOTOGRAPH BY **ERIC GITONGA**

AIC KIJABE HOSPITAL, KENYA

When **Mark Newton, M.D.**, speaks of the urgent need to reach medically underserved populations throughout the world, his words of compassion are backed up by more than 14 years' worth of action.

Newton, an associate clinical professor in the Department of Anesthesiology and a pediatric anesthesiologist at Monroe Carell Jr. Children's Hospital at Vanderbilt, directs the Vanderbilt International Anesthesia (VIA) program. VIA is a global service, education and research division which focuses on anesthesia and ICU issues in low-income countries. Newton returns to Nashville for short stints to work and teach anesthesia residents and fellows at Children's Hospital but spends the vast majority of his time in East Africa developing anesthesia capacity.

Under Newton's guidance, anesthesia residents from Vanderbilt and elsewhere have an opportunity to receive training and to educate African anesthesia care providers in rural Kenya. Newton has developed a non-physician anesthesia program in rural East Africa while traveling to Southern Sudan and the Horn of Africa to help develop medical education programs.

"These areas of the world have some of the highest maternal mortality rates in the world, and the anesthesia care is really non-existent," Newton said.

In 1997 Newton and his wife, Sue, made the decision to leave Denver Children's Hospital to serve the poor at AIC Kijabe Hospital, a faith-based church hospital established in 1927 with a strong surgical capacity and educational foundation.

"The reason that we have remained in Africa for so many years is based in the transformational message of God's love for the poor. A deep-rooted, sustainable impact will happen when medical educators are willing to leave the comforts of an American doctor's life and mentor and teach alongside African colleagues," Newton said.

The Newtons have five children. One of their daughters was born in Kenya (Kijabe), two boys were born in the United States, and the couple adopted a Kenyan boy and girl. Sue helped establish a children's home and a Massai women's community development program.

Newton's humanitarian efforts in health care were recently applauded by the American Medical Association (AMA) when he received the Dr. Nathan Davis International Award in Medicine. Named for AMA's founder, the award recognizes physicians whose influence reaches the international patient population and changes the future of their medical care.

For South Texas native **Erik Hansen, M.D.**, HS '08, home has always been where the heart is. So, for Hansen, his wife and four young children, Africa has become home.

Hansen will return to the United States in March for a few months following a two-year stint at AIC-Kijabe.

Hansen's hybrid appointment, which has him practicing in both Africa and the United States, is an emerging model for academic physicians with global health interests.

"My faith instructs my decisions and fuels the work here," said Hansen, who holds joint faculty appointments in Pediatric and General Surgery, and serves as associate program director for the General Surgery Residency with responsibility for the Vanderbilt International Surgery initiative. "My family and I feel very blessed to live and work in Kenya. This is so much more than just a job; it's a calling."

Hansen's practice is similar to those of an attending physician in the United States and includes "typical" pediatric general surgery, patients in pediatric urology, some adult general surgery and cleft lip and palate repairs.

One significant difference, however, is that because of the limited access to health care in the region, patients often present at much later stages in their illnesses.

"We see complications, infections and end-stage presentations here that we

almost never see in the United States because so many East Africans simply can't get to a doctor sooner," said Hansen, who received his Master of Public Health degree from Vanderbilt in 2006. "Working here provides the opportunity to care for the vulnerable and train surgeons for future generations. It's why I'm here."

Hansen and his family live in a mission compound with families from all across the globe. His wife, Amanda, teaches at a Bible college and holds down the fort with three children in school and a 4-year-old still at home.

"Our kids seemed to adapt to life in East Africa almost from the moment our plane landed," said Hansen. "Life is a lot simpler here. They walk to school; I walk to work, and everyone knows everyone. You might compare it to a small town in America in the 1950s."

Hansen and his family expect to return to Kenya in August. "Kenya is our home, and this is where we are supposed to be," he said.

Both Hansen and Newton, who live and teach with their families in this rural, faith-based, African hospital, feel that the opportunity to provide medical care for the poor while educating national health care providers fulfills the deep passion that prompted them to become medical doctors and pediatric specialists.

— Mimi Eckerd and Jill Clendenning

SENEGAL

If anyone in **Julie Thwing's** 2002 medical school class is wondering where in the world she is, they would not be surprised to learn that she is living and working in Dakar, Senegal.

Thwing moved there in January 2012 with her husband, Ed Hopkins, and infant son, J.B. She is the Centers for Disease Control and Prevention resident adviser for the President's Malaria Initiative.

Thwing, a Canby Robinson Scholar, completed medical school and a residency

in internal medicine and pediatrics at Vanderbilt in 2006 before moving to Atlanta to train at the CDC's Epidemic Intelligence Service (EIS).

The EIS is a two-year post-graduate fellowship for health professionals interested in applied epidemiology. While in EIS, she served in the Malaria Branch, supporting public health interventions and conducting research in Niger, Angola, Kenya and Madagascar.

After completing the EIS training program, Thwing remained in the CDC's Malaria Branch as a medical epidemiologist. She provided technical support for the PMI in Senegal, as well as supporting various research projects and malaria control initiatives.

As the resident adviser, she works with USAID, the National Malaria Control Program, and numerous other partners including the University of Dakar to implement malaria prevention and treatment in Senegal, improving access to insecticide treated bednets, prompt diagnosis, and treatment with artemisinin-based combination therapy.

"The Senegalese are very active partners and participants in their own malaria control, and I am privileged to get to work alongside them," Thwing said. "I love working with a group of highly intelligent, motivated, engaged people, on something that saves lives – it's quite a treat."

Thwing focuses on strategic information to ensure that these interventions are

working, providing technical assistance for malaria surveillance, monitoring of insecticide resistance and drug efficacy, and operational research on management of malaria.

"I will stay as long as they will let me and as long as my husband is happy," said Thwing, who lives with her family in a quiet neighborhood a few hundred yards from the coast. "We have wonderful colleagues and friends in Senegal. We've been really happy."

– Kathy Whitney

NIGERIA

John Tarpley, M.D. '70, AB '66, has traveled to Nigeria every year since 1978. He originally went to help others feel better; now he goes because it makes him feel good.

For 15 years, he and his wife, Maggie, spent three years at a time in Nigeria where Tarpley was the director of a small, but expanding, residency training program in Ogbomoso, working with medical students and residents there and in Ibadan, helping train them to become physicians and teachers.

Now, Tarpley uses two weeks of his vacation time from his surgical post at the Nashville VA Medical Center to return to Nigeria to "water friendships."

"If I don't go, then I'll lose touch with these people that I invested the most important 15 clinical years of my life in. I am there to encourage, help, facilitate and commiserate. They have a hard job. Nigeria is a hard country. It has lots of issues, but the people are fantastic."

Pediatric surgeon Wallace (Skip) Neblett, M.D., '71, along with other specialists, have accompanied Tarpley over the years, working with the Nigerian surgeons and registrars to improve their skills and knowledge.

"I take a specialist with me and we do a focused, two-week skills course for the folks over there as a way to improve their care in various areas of service," said



JULIE THWING, M.D., SENEGAL

As the resident adviser with the Centers for Disease Control and Prevention, Thwing works to improve access to prevention, diagnosis and treatment of malaria.



Tarpley, director of the General Surgery Residency Program and professor of Surgery and Anesthesiology.

Tarpley recalls how he and Neblett worked together to rebuild the esophagus of a patient who attempted suicide by drinking lye. Years later, she returned to the hospital, married, to introduce her baby to the doctors who saved her life.

These days, Tarpley works mostly with nurse anesthetists, helping to ensure safe airway management, a major health disparity he has witnessed first-hand in Sub-Saharan Africa.

He and Maggie hope to spend half of their time in Africa once they retire.

“I am blessed to do what I like to do; it’s fun. We invested ourselves in people, and we continue to do that,” Tarpley said.

– by Kathy Whitney

INDONESIA

When **Kris Olson, M.D.** ‘98, landed in Meulaboh, West Aceh, Indonesia and exited the float plane, he wanted nothing more than to catch a few hours of sleep. Instead, he was immediately greeted by a midwife, Anjani, who told him she wanted him to come with her to meet a baby she delivered.

The midwife took him out to a little village and showed him a healthy 2-month-old baby, who was born full-term but asphyxiated upon delivery. She held up an \$8 tube and mask that she had received from Olson in an infant resuscitation class he had taught. She had used it to save the baby’s life.

“Any other time, the midwife would have looked over and said ‘it’s dead’ and pulled the blanket over the baby,” Olson said. “Mothers don’t even name their babies until they are 2 months old (a cultural adaptation to the high neonatal mortality rate).

As a consultant with the International Organization of Migration (IOM), Olson selected the simple plastic device,



KRIS OLSON, M.D., INDONESIA

For more than 20 years Olson, right, has dedicated much of his time to bringing medical technology to developing countries with the hope of improving neonatal care. Here, he shows midwives how to use an inexpensive tube and mask to help resuscitate babies.

approved by the Ministry of Health process but not yet scaled, and trained hundreds of midwives how to use it.

“It was the midwives who morphed it into something that was culturally better there. These gracious colleagues said, ‘let us take it from here.’ They asked me to do an outcomes evaluation so they could advocate for the program once we left,” Olson said. “I wake up each day and think about how that training program is ongoing. It might be a small piece I did, but how rewarding it is.”

Olson is an inpatient clinical educator in the Department of Medicine at the Massachusetts General Hospital. He spent most of 2003 working in refugee camps along the Thai-Burmese Border. In 2005,

he worked with the American Refugee Committee in Darfur. From 2005 to 2009, he worked as a consultant with the International Organization of Migration (IOM) in tsunami-affected regions of Sumatra. He currently serves as the medical director for Consortium for Affordable Medical Technology (CAMTech) at the Mass General Center for Global Health.

– Kathy Whitney

GUYANA

Until recently, graduates of the University of Guyana Medical School began to practice medicine after a year of internship but no specialty training.

Graduate medical training was strongly desired locally, but it took many years of collaborative work developing an ACLS program and emergency care courses with Vanderbilt before the residency became a reality in 2010.

“We are grateful for funding from Project Dawn that has allowed us to hire a faculty member with international health experience, write a curriculum and launch a training program for the purpose of creating a self-sustaining emergency medicine residency at the teaching hospital in the capital city,” said **JP Rohde, M.D.**, HS ‘02, assistant professor of Emergency Medicine.

Rohde, whose parents were missionaries, spent most of his childhood in Guyana. As a resident at Vanderbilt, he and his Emergency Medicine colleagues started a cardiac life support program there. When Project Dawn, which provided medical care to the most indigent population, began to look for new opportunities to extend their work after the loss of their founder, they approached Rohde at Vanderbilt.

With support from the Emergency Medicine department’s leadership, the Guyana Project was born. **Nicolas Forget, M.D., MPH, DTMH**, is the director of the Masters Programme in Emergency Medicine for the Georgetown Public Hospital Corporation in Guyana and an assistant professor of Emergency Medicine at Vanderbilt.

“I arrived in Guyana fresh from completing a fellowship in international emergency medicine and was very apprehensive at the idea of being called the residency director so young in my career,” said Forget (pronounced Forgeay). “The first few months were tough; I was the new foreigner perceived like so many who had come before for a few days or a few weeks then left to never return.”

As Forget taught evidence-based emergency medicine, the new residents learned to trust him, and together with doctors, nurses and staff they have built a strong and constructive relationship. The residency program in emergency medicine,

which started with three residents in October 2010, now has 10 residents and is the largest at Georgetown Public Hospital Corporation.

“My favorite part of my job here is still to see patients with the residents,” Forget said. “They are developing their own leadership, and I am confident they will take this residency and make it their own success.”

– *Kathy Whitney*

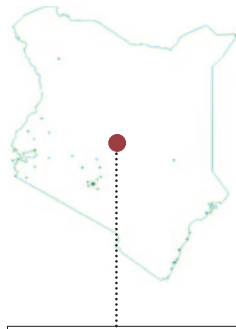
IKUMBO, KENYA

Matthew Gartland, a fourth-year medical student, is one of the co-founders of the non-profit organization Harambee For All Children, which is responsible for building a secondary school and community

library in the small community of Ikumbo, Kenya.

“One of the many meanings of the Swahili word harambee is a pulling together, as demonstrated by community fundraisers for education,” he said. “We wanted this to be a community-driven organization, so the most important aspect of our mission is to understand the needs of the community.”

Under the leadership of Gartland and six VUSM students, Ikumbo Secondary School has four classrooms, administrative offices and a science lab, all built in the last three years. It currently has 140 students in the equivalent of grades 9-12. The community library is stocked with 1,700 books purchased and transported with donations from an event held at Vanderbilt in 2009.



MATTHEW GARTLAND, KENYA

Fourth-year medical student Matthew Gartland, left, is one of the co-founders of Harambee For All Children, which is responsible for building a secondary school and community library in the small community of Ikumbo, Kenya.



Gartland spent the past year living in Lusaka, Zambia, working with the Centre for Infectious Disease Research in Zambia (CIDRZ) with funding from the Fogarty International Center at the National Institutes of Health.

He studied the impact of universal access to antiretroviral therapy on the prevention of mother-to-child transmission of HIV with a second area of focus on patient retention and risk factors for drop-out among all adults on antiretroviral treatment.

“We found that after one year almost 15 percent of those started on treatment were lost to follow-up (a term that encompasses deaths, drop-outs, and transfers to other facilities),” Gartland said.

Globally there are more than 8 million people with HIV on antiretroviral treatment. The biggest challenge for individuals on treatment, and for the governments, health care providers and international organizations involved in their care, will be to achieve consistent drug adherence and access to lifelong therapy for the disease, Gartland said.

Additional board members at Vanderbilt involved in Harambee For All Children include: Scott Zuckerman, M.D. ‘12; Rimal Hanif, M.D. ‘12; fourth-year student and Gartland’s fiancée, Rajshri Mainthia; fourth-year student, Billy Sullivan; and Benjamin Dean and Rafal Sobota, both MD/PhD candidates in the Class of 2015.

– Kathy Whitney

UGANDA

Dirk Hamp, M.D. ‘91, has a 14-year-old daughter, Jane. She enjoys American culture and hanging out with her friends. She attends a small, Christian school in Raleigh, N.C., where her father is a pediatrician and her mother, Paige, is a community relations manager. Her life appears to be that of a typical teenage girl. It has been anything but.

Seven years ago, Jane was living with her birth mother and sister in a small village in Western Uganda. After a horrific attack during the night as the result of a land dispute, her mother and sister died. The attackers came at Jane with a sledgehammer and a machete. She suffered a skull fracture and brain injury and multiple wounds. She was left to die alone, but survived.

A charitable organization stepped in, and Jane was flown to Los Angeles for medical treatment. Across the country, in North Carolina, Paige learned about Jane from an acquaintance. Sitting in the

comfort of their home, Dirk and Paige looked at each other and said, “Now what are we going to do?”

They traveled to Uganda, and within a few weeks, they were granted guardianship and adopted Jane. They spent a month exploring the area, learning more about the conditions in which their daughter lived.

“What struck us is that while we were bringing Jane home, what are we going to do about all of the other children there? Many had heart-wrenching stories; some in orphanages, others were living in mud



DIRK HAMP, M.D., UGANDA

Co-founder of Embrace Uganda, Hamp is greeted by two Ugandan orphans from the village of Kaihura. “They are representative of the many, many young children in Uganda who have nothing and smile all the time,” he said.



homes. There is all this work that could be done to improve the lives of those children,” Hamp said.

The Hamps and two other couples put their heads – and hearts – together and started Embrace Uganda.

“We did not want to superimpose what we felt needed to happen, but we wanted our Ugandan partners to tell us what they needed and we would figure out a solution from this end,” Hamp said.

Since the fall of 2007, the non-profit, fully volunteer organization has partnered with three villages. In Kaihura, Jane’s village, Embrace Uganda has supported Bringing Hope to the Family, constructing a new home for an orphanage, finishing an existing vocational school, making improvements to a public school in the area, and supporting clean water initiatives and self-sustaining agricultural projects. It is now completing the building of the Hope Again Medical Clinic.

– Kathy Whitney



THOMAS NYGAARD, M.D., **JAMAICA**

Every year that he returns to St. Thomas Parish in Jamaica, Nygaard is reunited with his friend and longtime patient who suffers from congenital heart failure.

JAMAICA

For the past seven years, **Thomas Nygaard, M.D.** ‘78, has traveled with the Central Virginia Medical Mission Team to St. Thomas Parish in Jamaica. A team of physicians, nurses and dentists go to the destitute area on the southeastern end of the island. For Nygaard, a former cardiologist and current administrator for CentraHealth in Virginia, it is an opportunity to return to the fundamentals of practicing medicine.

“You go into medicine to take care of people and this is a very pure way to do that. You don’t worry about coding or documentation, you just worry about doing the best thing you can for each patient,” he said.

There is one surgeon for the 100-bed hospital that covers 90,000 people. One nurse anesthetist covers all surgical procedures. The ER has no physicians and is staffed by a few nurses.

“I met a young man the first year I went. He has complex congenital heart disease. In the U.S. it would have been repaired as an infant. It is beyond repair now. Every year I go down there he will seek me out for a visit,” he said. “It’s touching to see him. He has a hard time getting about and is slowly getting worse every year.”

Nygaard feels that his years at VUSM helped set the stage for medical mission work.

“Vanderbilt was such a patient-centric medical school and taught me so much about caring for the patient, and it really is why I went into internal medicine,” he said, citing mentors such as Tom Brittingham, M.D., Mark Houston, M.D., and Grant Liddle, M.D.

Nygaard recently became involved with Matakaria Africa, a nonprofit organization that teaches physicians how to

deliver care in East Africa. He organized an educational program in Dar es Salaam with colleagues from CentraHealth, The Medical University of South Carolina and the Tanzania Ministry of Health.

“We put together a didactic program for physicians from all over East Africa. We toured hospitals and medical facilities and put together a report with our recommendations for moving heart care forward in Dar es Salaam and Tanzania.” **VM**

– Kathy Whitney

EDITOR’S NOTE: *With many more stories to tell than we had room for in this issue, we will be updating the magazine periodically with stories of hope and healing from across the globe. Please send yours to: kathy.f.whitney@vanderbilt.edu.*





INITIATIVE SOUNDS THE ALARM ON SLEEP APNEA

WRITTEN BY **JILL CLENDENING**
ILLUSTRATION BY **DAN PAGE**

With the use of a CPAP machine and perhaps a loving nudge from a spouse, sleep apnea is often easily controlled in the comfort of one's own home.

But what happens when someone with obstructive sleep apnea (OSA) has to be admitted to the hospital? Substances such as narcotics and sedatives that are given for pain relief and sedation can cause shallow breathing and increased incidences of sleep apnea.

Anesthesiologists, cardiologists, respiratory therapists, sleep medicine physicians, patient safety specialists and nurses across Vanderbilt University Medical Center knew it was time for a wake up call when it came to the need to provide better care for patients with obstructive sleep apnea. They organized a task force and sounded the alarm.

WHEN FORMER MINNESOTA VIKINGS OFFENSIVE LINEMAN CURTIS ROUSE LOOKS BACK OVER HIS LIFE, HE KNOWS HE'S BEEN ONE HECK OF A LUCKY MAN.

He suffered a massive stroke in 1997 at the age of 37, and in 2005, he had a heart attack. Rouse, now a Clarksville, Tenn., resident, returned to VUMC in October with complications from congestive heart failure, and he was asked the one question that might be the key to unlocking his complicated health history.

“When they were checking me in, the nurse asked me if I had sleep apnea and if I used a CPAP (continuous positive airway pressure) machine,” he said. “I told her I did have sleep apnea, but I never used my machine because I wasn’t comfortable with it. I’ve known for a long time – since back in the ‘80s – that I had sleep apnea, because people would tell me I snored loud and that I would stop breathing, then start again. But I hated using that machine. I couldn’t sleep with it.”

The fact that Rouse’s CPAP machine was gathering dust concerned his cardiologist, David Slosky, M.D., who had also cared for Rouse after his heart attack. He was adamant that Rouse needed to use his CPAP machine nightly.

“We can treat people who have OSA with drugs for complications like arrhythmia, heart failure, hypertension and so on, but there’s a key here,” said Slosky. “If they’re still not getting enough oxygen while they sleep, then it’s a losing game. We know the roof is still leaking. At some point, you gotta fix the roof. We do see arrhythmias, heart failure and hypertension that get better with treatment of sleep apnea.”

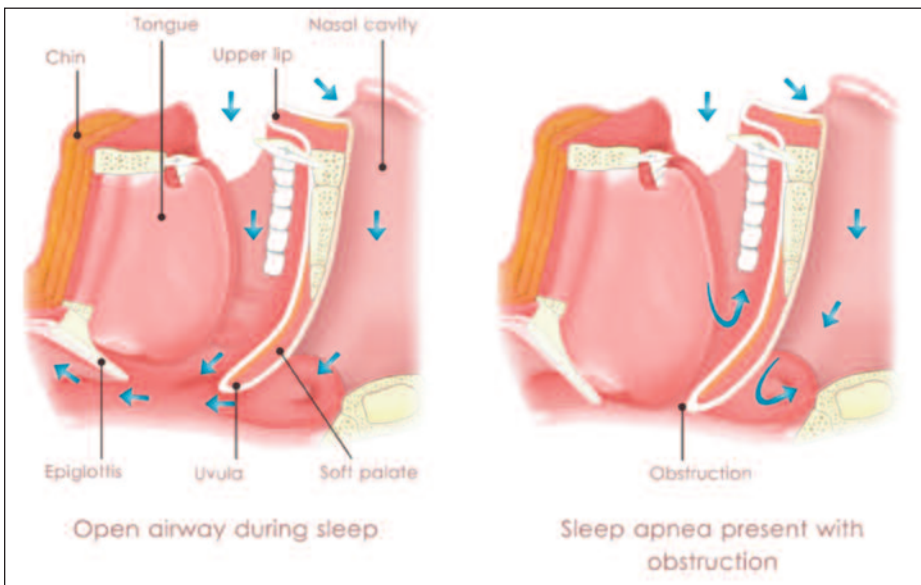
Slosky’s increasing concern about patients like Rouse is mirrored all over the Medical Center campus.

A SERIOUS CONDITION

Sleep apnea is a disorder that causes a person to stop breathing for short periods of time, and everyone can experience this at some point in life. Obstructive sleep apnea, or OSA, is a much more serious, life-threatening disorder that happens when tissue in the throat collapses, blocking air from getting to the lungs. A primary treatment for OSA is the use of a CPAP device, which blows oxygen through a face mask, forcing the airway to remain open. CPAP devices are usually prescribed after an individual completes an overnight sleep study (a polysomnogram).

In the past, patients who used a CPAP machine at home might not remember to bring it with them when they checked into the hospital. There was no process in place to guarantee that they did, or if they did, that their machines were in good shape. Hospital staff might not have even been aware that patients had OSA, leaving the serious medical condition unaddressed. Substances such as narcotics and sedatives that are given for pain relief and sedation can cause shallow breathing and increased incidences of sleep apnea. This makes the need for patients with OSA to use their CPAP machines even more critical.

“When you consider three of the risk factors for sleep apnea are being middle age, male and overweight, we have a huge population that we’re serving here,” said Roger Dmochowski, M.D., vice chair of the Section of Surgical Sciences and executive medical director for Patient Safety and Quality (Surgery). “Sleep apnea has a tremendous impact, not only on quality



LAUREN HOLLAND

Curtis Rouse is sleeping soundly after getting his apnea under control.



ARE YOU AT RISK?

Does your bed mate complain that you snore loud enough to shake the rafters or that you repeatedly stop breathing while you're asleep? These can be signs of sleep apnea, and there are several simple tests you can take on your own to see if you're at risk for this condition. Patient Curtis Rouse, who was known for his massive physique during his six seasons in the NFL, answered 'yes' to just about every question on the STOP BANG survey, one of the primary screening tools for sleep apnea.

Risk factors for sleep apnea include:

- Snoring
- Often feeling tired
- Others noticing that you stop breathing while sleeping
- High blood pressure
- Being overweight (body mass index more than 35 kg/m²)
- Being over 50 years old
- Having a large neck (greater than 40 cm in circumference)
- Being male

If there are three or more yes responses to the factors above, a person is considered at high risk for sleep apnea. If you're concerned about sleep apnea, don't wait until concern becomes a crisis. Have a discussion with your primary health care provider, who can arrange a referral to the Vanderbilt Sleep Center by calling (615) 322-4000.

Roger Dmochowski, M.D., executive medical director for patient safety and quality (Surgery).



DANIEL DUBOIS

of life, but also on cardiopulmonary function and the body's general overall health. It's a huge issue, and we needed to make sure the quality of care was the best we could offer."

It was time to solve the problem. Dmochowski headed a VUMC task force organized in 2011 charged with making sure patients with OSA don't fall through the cracks when it comes to their respiratory health. The group, which included members from every specialty involved in these patients' care, developed a new CPAP protocol, the first phase of which is now in place. Previously, an average of two patients a day were seen by respiratory therapists so they could make sure the patients were using a CPAP machine during their hospital stay, said VUMC Respiratory Therapy Director Anna Ambrose.

Now, less than a year later, more than 30 patients a day with a previous diagnosis of OSA are being seen and being provided in-hospital CPAP therapy. Special instructions are also now added to OSA patients' charts to remind nurses to be more aware of respiratory issues. Since the program began, there have been no emergency calls to respond to OSA-related complications in this patient population, said Ambrose.

Due to the Task Force's effort, when Rouse answered that he did have sleep apnea, a series of events were triggered. He was referred for a consultation with a Vanderbilt respiratory therapist, who came by his hospital room that same day. He was fitted with a comfortable mask and provided a CPAP machine to use while he was at VUMC that was newer than the model he had at home. If he had

brought his machine in from home, the respiratory therapist would have evaluated the machine to see if it was ready to use, but Rouse said he was more than happy to try out the new machine.

“I told them I didn’t remember what the setting was, but they told me that was fine,” Rouse said. “They brought a machine in, got it set up, and I started using it the first night. I didn’t have any problem with it at all.”

Rouse is now back at home, and thanks to the consultation he received while at VUMC, his CPAP therapy has been adjusted so it is more comfortable. He reports that he is sleeping much better.

NEXT STEP

While this approach to treating those who have an existing OSA diagnosis may work for many patients, there may be some who are overwhelmed just by being in the hospital, said Beth Malow, M.D., the Burry Chair in Cognitive Childhood Development and director of the Vanderbilt Sleep Disorders Center.

“One thing we would like to build into this program is understanding which patients might need some extra help,” said Malow. “For these patients, it might be better to forgo acute treatment with CPAP and replace that with close monitoring.

WHO GETS OSA AND WHY WORRY?

Sleep apnea affects an estimated 18 million Americans – that’s about one in 15. According to the National Commission on Sleep Disorders Research, approximately 38,000 deaths occur each year related to cardiovascular problems that are connected to sleep apnea. These problems include high blood pressure, congestive heart failure, and stroke. Obesity, which contributes to OSA, affects more than 35 percent of adults and 17 percent of children in the United States, and the

number of patients with OSA coming to hospitals is increasing as waistlines expand and the population ages.

Obstructive sleep apnea develops more frequently among people who sleep on their back, are age 50 or over, are overweight, and are male, but OSA is seen in both sexes and in patients of all ages and body types. Researchers believe that in some cases the origin of OSA can be neurological, meaning it might be caused by improper or inadequate signaling from the brain.

People that have genetically narrow airways are also more prone to OSA.

Whatever its cause, if left untreated OSA can have very serious consequences. In many cases, it leads to debilitating daytime exhaustion, headaches, depression and an overall sense of ill health. Over time and without treatment, OSA can contribute to high blood pressure, heart disease, strokes and other life-threatening and life-shortening conditions.

Then, we need to focus on getting them into a clinical setting where a physician or a nurse practitioner can work with them closely to get them to be more accepting of their treatment.”

In addition to the admission survey conducted with hospitalized patients, patients who come to the Vanderbilt Preoperative Evaluation Center (VPEC) before outpatient or elective surgery are

also now being asked if they’ve been diagnosed with OSA, said VPEC Manager of Patient Care Services Russ Kunic, FNP-BC. If they do have OSA, depending on the severity, they may be recommended for surgery at the main hospital rather than at a same-day surgery center so they can be monitored more closely, said Kunic. Their OSA diagnosis is noted in their medical history, and patients are told that they must use their CPAP machines after procedures, especially if they’re taking pain medications. If VPEC’s nurse practitioners believe someone might be at high risk for OSA, they also recommend a sleep study at the Vanderbilt Sleep Center, said Kunic.

Now that the first phase of the Task Force’s protocol has proven successful, Dmbroski says the group will address additional OSA concerns. It’s estimated that 2 percent to 4 percent of Americans have undiagnosed OSA, and the next phase will focus on identifying those patients who might be at risk for OSA. They can then be referred for a sleep study. Patients who are having difficulty using their CPAP machines consistently can also receive additional assistance. **VM**

Patients with obstructive sleep apnea are being provided in-hospital CPAP therapy.



A parent

FAMILY HISTORY: Has anyone in your family ever had the following conditions?

	Mother	Father
High Blood Pressure/ Hypertension		
Heart Attack/ Heart Surgery		
Diabetes		
Stroke		
Cancer (Type/Location)		
Osteoporosis		
Thyroid Problems		
Mental Illness		
Glaucoma		

Please check any of the following

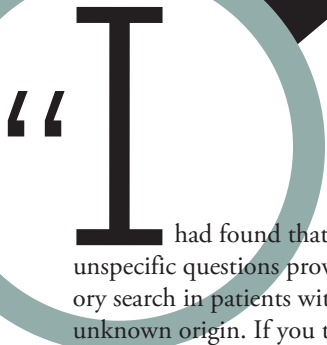
Stop. Look. Listen.

SOLVING MEDICAL MYSTERIES WITH TIME-TESTED Q-AND-A

WRITTEN BY **LESLIE HILL**
PHOTOGRAPH BY **SUSAN URMY**

Clifton Meador, M.D., cured his patient's

three years of diarrhea with two simple questions. Agnes was a 27-year-old secretary who had had every test imaginable to find the cause of her persistent diarrhea – upper and lower endoscopy, several barium studies, a biopsy of her small intestine. She even had her gallbladder removed when gallstones were found. All the tests were normal and the diarrhea continued. Some physicians told her she might have early stages of ulcerative colitis or Crohn's disease. Another told her she might need to have her colon removed and referred her to Meador for further evaluation. He agreed that all of Agnes' tests and lab results were normal. He probed into the frequency of her diarrhea, and asked her to keep a diary with close record of what she ate and the time of each bowel movement, though no pattern emerged. Then Meador asked his two signature questions: What are you doing in your life that you should stop doing? What are you not doing in your life that you should be doing?



I had found that these two highly un- specific questions provoke a deep mem- ory search in patients with symptoms of unknown origin. If you think about the wording of these questions, you will see that they are limitless, and therefore they provoke a search of every aspect of one's life," writes Meador, professor of Medicine, emeritus, in his latest book "True Medical Detective Stories," which recounts Agnes' story along with 18 other cases of mysterious diagnoses.

Agnes said she knew her boss was embezzling money from the company, and she was torn between doing the right thing by reporting him and turning a blind eye to keep her job, but insisted it didn't have anything to do with her diarrhea.

Meador didn't see Agnes for several months, but when she did return to the clinic, he barely recognized her. She had a new hairstyle, stood erect and was smiling and laughing with the staff. She said she had reported her boss, resigned from her job and felt a great weight lifted from her. Although she still didn't think it was related to her job situation, the diarrhea had ceased.

The true medical mysteries Meador has cracked don't resemble an episode of "House" or a Sherlock Holmes tale. In Agnes' case, it wasn't some unusual parasite picked up in a foreign land, a reaction to tainted produce or even a common bowel disease. Meador had used the art of ques- tion and answer to solve a problem that modern labs and scopes couldn't.

"Listen to the narrative of the patient. Just listen. Say 'tell me your story,' and then sit and listen," said Meador, who retired last fall from 13 years directing the Meharry-Vanderbilt Alliance.



Clifton Meador, M.D., advises wait- ing as long as possible to make a diagnosis. "A lot of patients get locked in forever to something they don't really have."

Through a career of small-town private practice, directing the National Institutes of Health Clinical Research Center in Alabama and academic medicine at Vanderbilt, Meador has solved dozens of medical mysteries of his own, in addition to collecting many more from colleagues to retell in his books. For him, cracking the case isn't knowing what test to order or obscure reaction to look for. Diagnosis truly comes down to listening to the patient and getting them involved in analyzing their own body.

"Sooner or later patients will tell you what is wrong if you listen carefully, espe- cially if they are gently directed to look around themselves and wonder. Sometimes a physician has to listen for a long time, but it remains true that patients are their own best medical detectives," he writes of perhaps his most famous case, "Dr. Jim's Breasts." Medical writer Berton Roueché,

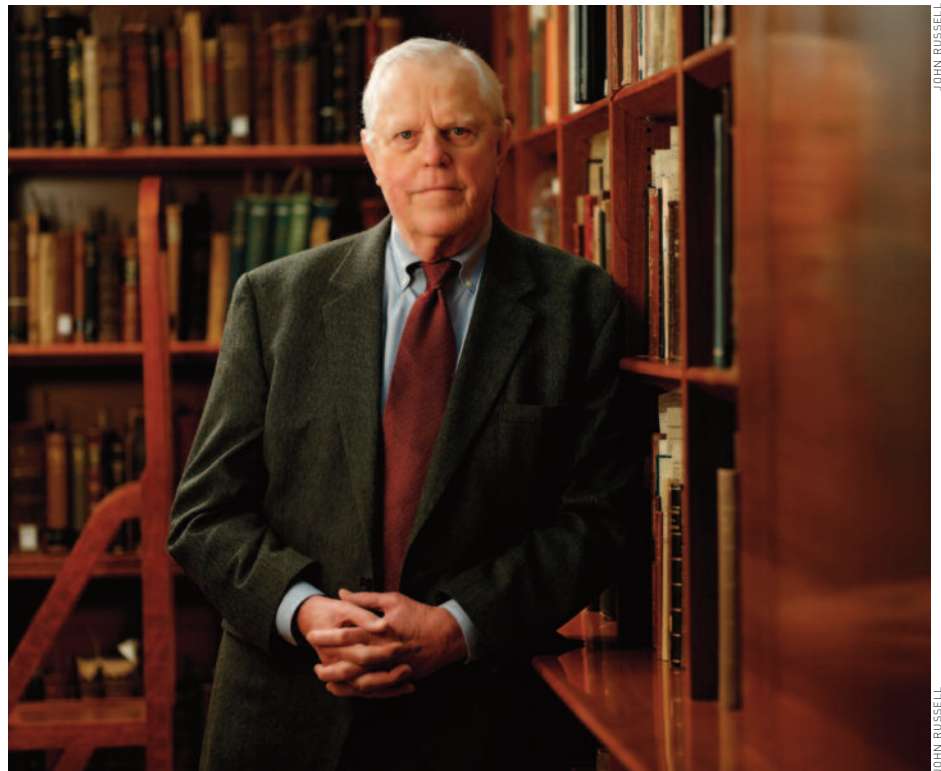
a hero of Meador's, recounted that tale in his book "The Man With Two Breasts."

Dr. Jim was 76 when he began to have abnormal breast growth. Meador looked for a tumor or some other explana- tion for an increase in estrogen. Dr. Jim laughed off Meador's request to keep a journal of his habits, but as soon as he did, his wife realized the vaginal cream she used contained estrogen, and Dr. Jim was absorbing it through their sexual contact.

"All diseases or illnesses arise out of the life story of the patient," Meador said. "You just have to take the time to listen to that story."

How's the Family?

When Michael Fowler, M.D., an assistant professor of Medicine who teaches the Physical Diagnosis course to second- year medical students, was an endocrinology fellow in 2002, he was called in on a



JOHN RUSSELL

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Do You Hear What I Hear?

TEACHING PHYSICAL DIAGNOSIS

Saturday afternoon to see a patient who had just had prostate surgery and couldn't stop urinating. Fowler initially thought it was just high blood sugar, but says he'll never forget the sight that greeted him in the hospital bed.

"This fella was sitting up with a pitcher of water in each hand and one of those bendy straws sticking out of each one. He was double-fisting pitchers of water."

With blood sugar at 150, not high enough to cause such excessive urination, Fowler knew a thorough history and physical was in order.

"The physical exam wasn't really remarkable for anything, but I get to talking to him and he said he's always thirsty, and it is nothing unusual for him to drink a lot of water and pee every hour or 30 minutes and get up three or four times a night."

He was even pinned down in a fox-hole during the Battle of the Bulge in World War II and braved the gunfire to get water from a creek.

"He said he would rather get killed really quick by a bullet than die of thirst in the trench," Fowler recalled. "He told me that drinking water to him was like drugs are to a dope addict."

During family history questions, the patient revealed that others in his family also drank a lot of water, and by the age of three or four the family would classify children as being a "water dog" or a "non-water dog."

From all of this information, Fowler suspected the patient had diabetes insipidus in which a person cannot concentrate their urine, either because the body does not produce the necessary hormone or the kidneys do not listen to the hormone.

A test dose of the hormone was given, and the excessive thirst and urination stopped. The patient's family agreed to further testing, and Fowler and colleagues described the second-ever case of a mutation in the vasopressin gene, which regulates the body's water retention.

Michael Fowler, M.D., right, assistant professor of Medicine, teaches the Physical Diagnosis course to second-year medical students, which develops the skills for taking a thorough history and physical – from learning to use a stethoscope and otoscope to practicing patient interviewing and clinical observation.

Students are put through practice scenarios with standardized patients in the Center for Experiential Learning and Assessment (CELA), often with a hidden bit of information the student must tease out. For example, a "patient" with a bronchitis-like cough, the students discover, does not believe in vaccinations and has not been immunized against whooping cough.

While CELA is a safe environment for learning, Fowler believes real-life scenarios are most salient for students who are divided into small groups under a mentor and assigned patients to visit to practice history and physical exam skills.

A recent session had Fowler accompanying three students to visit a 71-year-old male who had surgery for obstructed renal arteries at an outside hospital, and had been transported to Vanderbilt after developing pneumonia and fluid in the abdomen. The patient was on contact isolation, so Fowler helped the students don their gowns, gloves and masks and reassured them that if they worked slowly around the trach and tubes, there was no danger for pulling them out.

Fowler told the students to listen for upper airway congestion ("a loud popping noise") and demonstrated how to percuss the abdomen to assess fluid levels. ("Start anterior and go laterally and listen for the sound to change from resonant to dull.")

As each student stepped up for a turn, Fowler told the patient he could start charging a quarter to listen to his heart. Student Dan Balikov continued the joke: "Do you take credit cards?"

"This was one of the most extreme cases – wearing gowns and gloves and listening to the heart and lungs and tapping the abdomen," Balikov said.

"I will always remember those sounds now," medical student Sarah Coggins added.



SUSAN URRY

By the time these students reach their internal medicine rotation during their third year, they have learned the basics of the patient exam and are ready to put those skills to the test in the evaluation of patients in the hospital. The students are responsible for a patient's full workup, from which they create a written assessment and plan, along with daily notes of the patient's progress.

"That's where their gathering of all the information, prioritizing, sequencing and reasoning of it all comes together. It is one important means of how students develop and demonstrate their emerging 'Sherlock Holmes' and care-giving abilities," said Anderson Spickard III, M.D., M.S., associate professor of Medicine and director of the Third-Year Medicine Clerkship.

"They change so much during this year, I joke that their short coats get longer before my eyes."

Once a week, the 30 students on the rotation gather for "Morning Report," where three students informally present recent cases and the students practice making a diagnosis.

The students throw out every potential diagnosis, and then Spickard has them narrow the list to the most likely scenarios.

"We're trying to get them to think about two to four things, not 12, and definitely not one," he explained.

- LESLIE HILL

“If you’re the first person to describe a mutation like this, you get a disease named after you. If you’re the second person, you just get to tell medical students about it,” Fowler quipped.

“I use this long-winded story to remind medical students not to forget about family history. You are going to find rare disorders or new disorders that you would never have discovered otherwise.”

Context Key to Cracking Case

To crack a medical mystery, Anderson Spickard III, M.D., M.S., associate professor of Medicine and director of the Third-Year Medicine Clerkship, emphasizes figuring out what is normal for patients and looking at their case in the context of their lifestyle. A great example is his patient whose chief complaint was shortness of breath at mile 11 of his runs.

“The idea that goes through my head is, ‘You’re fine! Next patient!’ But we listened and challenged him and sure enough, we uncovered atrial fibrillation, a concerning heart rhythm, was occurring several miles into his workouts,” Spickard said.

Spickard learned the importance of context when he made a house call on another one of his longtime patients, a morbidly obese man who was having unusual mental status changes.

“I found him in the back in the garage on a makeshift mattress in a closed room with no door or windows and a heater going. Ended up diagnosing him with carbon monoxide poisoning,” Spickard said.

“House calls often end up being a way to crack a case. They’re a way to get more information from the patient and more collateral data from the family. These visits allow me to see the contextual issues of the set-up at home as well as clearly communicating my commitment to the patient.”

Of the 1,400 patients Spickard follows, at any given time he has six or seven on his “A list” – cases he either can’t crack or are very complex. With these patients, he’ll often put all of his notes away and start over as if he’s met them for the first time.

“My angle is less ‘crack the case and they carry me out triumphantly on their shoulders’ and more ‘enter the cracks of the case and belong there in those difficult places and see my patients and their families

through it.’ The Hollywood attraction of the Sherlock Holmes of internal medicine is equally matched with the dignity and honor of entering in others’ suffering and making a difference,” he said.

“It’s exciting to go down the path and keep turning over rocks and never knowing what will break open the case. But that’s more the exception than the rule.”

In the case of a grandmother from Cameroon, Spickard found that to be all too true.

“Common diseases are common for a reason,” he reminded himself as his longtime patient returned from one of her extended visits to her homeland complaining of feeling terrible and losing weight. She added offhandedly that she thought she also had malaria and typhoid fever.

“What was I going to do with that?” he exclaimed. “What are the initial laboratory evaluations needed here? I had no idea what to do. But knowing she was diabetic and that ‘common things are common,’ I took a focused history and realized she had gotten her medicines unorganized and her sugars were way off. She did not have malaria and typhoid fever; she had renal failure, a very ‘American’ disease.”

Delay the Diagnosis

In “True Medical Detective Stories,” Meador tells a similar tale of a hospital whipped into excitement at the prospect of a patient with an extremely rare case of xanthinuria. The protein xanthine is normally converted into uric acid, but people lacking an enzyme for the conversion experience kidney stones. The patient exhibited the classic pain pattern, requiring frequent doses of morphine. A series of student discussions and a grand rounds lecture were planned for this special case.

Then a nurse caught the patient picking her gums with a pecan shell, putting



JOHN RUSSELL

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Anderson Spickard III, M.D., director of the third-year clerkship, typically has a few cases that prove difficult to crack.

drops of blood and bits of nut in her urine to mimic kidney stones. Pecan shells are loaded with xanthine, and the patient had unknowingly created the perfect medical crime. The grand rounds was changed to a lecture on drug-seeking behavior.

Meador is an advocate for waiting as long as possible to make a diagnosis. "Once you label it, it's over," he said.

"Medicine today is so ready to do a CT scan and MRI and draw a little blood and go right to the technology rather than listening them out. A lot of patients get locked in forever to something they don't really have."

Meador trained in Endocrinology and initially thought the field was going to be the end of all disease.

"I thought the physician would just find out what was wrong with the body and fix it. Give a pill and make it all go away. I now know what a long road it is to truly listen to the patient, separate all their different complaints and get them to look at patterns. But that's what has to be done." **VM**

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Connecting the Dots

VANDERBILT PLAYS KEY ROLE IN IDENTIFYING NATIONAL MENINGITIS OUTBREAK

In early September 2012, a man in his 50s was brought to Vanderbilt with classic symptoms of meningitis: headache and neck pain, along with nausea, malaise, fatigue, chills and decreased appetite. His symptoms improved with antimicrobial and anti-inflammatory drugs, and he was discharged.

He returned a week later with worsening headache and appeared agitated with incomprehensible speech. He improved briefly with more medication, then worsened rapidly, became unresponsive on his 11th day of hospitalization and died on day 22.

The infectious diseases team was puzzled why a seemingly healthy man could have such a raging meningitis infection with no known cause. The team ordered the lab to retest his spinal fluid for unusual microbes.

April Pettit, M.D., MPH, was dumbfounded at what showed up on the laboratory plate – *Aspergillus fumigatus*, a fungus common in the environment but unheard of in a person's spinal fluid.

"It's rare in anyone, even in people who have immune system problems. I've never seen it in someone who has a normal immune system,"

said Pettit, an infectious diseases specialist.

But *Aspergillus* filled the entire plate, and looking at the dandelion-shaped mold, Pettit began to connect the dots on what would become a nationwide outbreak of fungal meningitis.

When Pettit learned the results, she went back to the patient's chart and interviewed his family to determine the cause. Only one thing stuck out – a spinal steroid injection at a local outpatient neurosurgery center.

Pettit said she felt in her gut that something wasn't right and notified the Tennessee Department of Health.

"I thought this was one patient and in no way was thinking I'd found an outbreak. I just thought the only possible way that the fungus could have gotten there is through this injection and it called for investigation," she said.

Tennessee Department of Health, and eventually the Centers for Disease Control and Prevention (CDC), began investigating and found what would end up being 696 cases of fungal meningitis, including 45 deaths, in 20 states. Tennessee was one of the hardest hit, with 147 cases and 14 deaths.



April Pettit, M.D., MPH

SUSAN LURNEY

The CDC and Food and Drug Administration identified three contaminated lots of the drug methylprednisolone acetate that were implicated in the meningitis cases, all produced by the Massachusetts-based New England Compounding Center.

In January, the *Tennessean* named Pettit "Tennessean of the Year," along with Marion Kainer, M.D., MPH, of the Tennessee Department of Health, who took Pettit's notification seriously and immediately began investigating. The newspaper recognized the duo's respective roles in the discovery of the meningitis

outbreak and the lifesaving actions that followed.

Pettit says she has learned the importance of not just solving a medical problem but trying to figure out why it happened in the first place.

"It's one thing to diagnose and treat something, but it's taking it to another level to try to figure out where it came from or why the person got it," she said.

"And you may not find out why. That's what most of medicine is – we never really find out why – so it's actually kind of gratifying to have an answer in this case."

– LESLIE HILL

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A 'SMART' APPROACH TO WEIGHT LOSS

There's an app for that



WRITTEN BY CAROLE BARTOO
PHOTOGRAPH BY DANIEL DUBOIS

The fight against obesity may be shifting from the weight room to the chat room, as weaponry in the form of apps, gadgets and online tracking move to the front lines in the battle of the bulge. 🍴 The media has dubbed a new trend of self-tracking as the “quantified self” movement. On iTunes and at Google’s Play store there are more than 1,500 applications or “apps” to track diets and health habits, accompanied by an explosion of mobile monitoring devices that clip on a belt or slip on a wrist to calculate precise activity levels. Much of this technology also offers a social media element to inspire, motivate and encourage. 🍴 Weight management experts at Vanderbilt support the use of technology to lose weight, even recommending some of it to patients, but they caution that apps and gadgets may be a temporary fix that could go the way of home gyms and grapefruit diets: fading from the national spotlight without affecting real change. 🍴 That is, unless something more permanent can be achieved through use of this technology. Work is under way at Vanderbilt to use popular technologies as a tool and to find unique ways to turn the focus of mobile tracking devices to the environment around us, to create a culture of change that might finally turn the tide in the war against obesity.

STAYING ON TRACK

Vanderbilt nurse, Rachael Poff, R.N., is a weight loss success story. Two years ago she weighed 287 pounds at 5 feet, 3 inches and had uncontrolled diabetes, chronic pain issues and sleep apnea. She underwent bariatric surgery at Vanderbilt and turned her health around. Today, at 132 pounds, the diabetes, sleep apnea and aching joints are gone, but the fear remains.

"I'm afraid I'll gain it back," Poff said.

Poff, who once worked with the bariatric surgery team, knows the success of weight loss through surgery can be short-lived. In 10 percent to 20 percent of cases, people gain significant weight back after the first two years. Poff has avoided weight gain so far, but still struggles.

"I hadn't really had sugar for almost two years, but then one weekend during the holidays I made sugar cookies with my daughter, and the cravings returned. It was tough," she said.

Like so many, Poff has a smartphone she carries with her nearly every waking moment. The device has become a source of support to maintain her new, healthier lifestyle. She uses a tracking application called MyFitnessPal, a free download that tracks meals and automatically syncs with a website that monitors goals for calorie consumption and nutrition.

In addition, for her last birthday, Poff got a mobile activity-tracking device called a Fitbit. The device is like a supercharged pedometer, tracking not just steps but intensity levels, elevation and other digital data that downloads to a website. The Fitbit not only tracks weekly goals, but can also synchronize with MyFitnessPal.

"I am a creature of habit. Technology is a good tool for me to use when I go off the path, kind of like a safety harness," Poff said. "I find when I am having a day when I struggle, am hungry or stressed, that's when I track. When I need that mental extra input, to know where my diet is at."

ACCURATE ASSESSMENT

John Cleek, M.D., director of Vanderbilt's new Center for Medical

Weight Loss, says applications and tracking devices like these are critical tools for his patients because they address a core problem among overweight Americans.

"Studies show we underestimate what we eat by 30 percent. I think it's the same way with activity; we tend to overestimate by about the same percentage," he said.

Research consistently shows self-tracking helps people lose weight and maintain weight loss. Now apps and

devices are making tracking more convenient, and consumers are jumping at the opportunity to try it. A Pew Internet survey released in fall 2012 shows more than half of smartphone users have a health application on their phone or use their phones to look up health information. Of all smartphone users who have a health app, 38 percent have one that tracks exercise, 31 percent monitor diet, and 12 percent use an app to manage their weight.



Rachael Poff, R.N.

DANIEL DUBOIS

Caroline Crow, M.S., R.D., the Medical Weight Loss Center's licensed dietitian, says she has access to her patients' MyFitnessPal data through the app's website, and uses it to send notes of encouragement between clinic visits.

"When they are getting started, sometimes I don't even think they are aware of the inconsistency between what they self report and their electronic food record. They might say 'Oh, I don't eat out more than one time a week,' but when they are tracking they can see it's more like four times a week," she said.

And as patients get a dose of reality about what they eat, Mike Wigger, M.S., the certified exercise specialist at the Center, teaches them a new definition of activity. He says the focus is changing from an emphasis on individual workouts to finding ways to increase physical activity throughout the day.

"Instead of just adding a 45-minute workout to the day, it would help if we made changes throughout our 8-to-10-hour work day. Studies show that getting the recommended amount of physical activity might not be enough to undo the detrimental effects of long-term sedentary behavior, like sitting at a desk all day. Ideally, we should get some movement every hour, even if it's just standing up and sitting down at your desk," Wigger said.

Wigger provides patients with a list of some of the activity monitoring devices now on the market along with their cost (an average of \$100) and features. He says the advantage of the newer devices over a simple pedometer is that they give a much clearer assessment of activity throughout the day. Some, like the Jawbone UP, can even be programmed to alert you with a buzz when you've been sitting for too long.

Cleek, who struggles with his own weight, uses a Fitbit to reach a weekly activity goal. He says his perception of his own fitness level is frequently adjusted with his tracking device.

"Like a lot of people, I can feel like I have been quite active when I am on my feet, seeing patients all day. But then I



JOHN RUSSELL

John Cleek, M.D., is the director of Vanderbilt's new Center for Medical Weight Loss.

sync the Fitbit to my computer, it shows I often fall short of my goal. That motivates me to get up early for a morning walk to get more activity in my day," he said.

And options for motivation are far easier to come by in today's world of online social media groups. In addition to self-tracking, bariatric surgery patient Poff visits a website called Daily Strength where a chat room is set aside specifically for people who have had weight loss surgery. Vanderbilt experts are highly aware, and are watching this tech trend for virtual group therapy. Crow says one of her patients uses online support groups for a willpower boost just before placing an order at the drive-through. But she, like many of her colleagues, says she feels it is important that patients meet with her, or with real groups, face to face as well.

TECHNOLOGY AS A TOOL

Cyber support and mobile device tracking offer greater convenience for busy adults, but Colin Armstrong, Ph.D., assistant professor of Clinical Psychiatry and a certified wellness coach for the Vanderbilt Dayani Center's Adult Weight Management Program, says it is not yet

known if new technology is as effective as more traditional techniques.

Armstrong says his patients use technology, too, and that can be a good thing, but he wants to temper the excitement with another dose of reality.

"Once the novelty wears off, people may be disappointed. If technology were all we needed, we'd all be thin. Lots of folks purchase home exercise equipment that doesn't mean they use it. By themselves, digital pedometers and apps don't lead to weight loss, they're just tools. It's how you use them that counts," he said.

"Even bariatric surgery is really just a tool," Poff says. "It helps tremendously in those first 18 months because you have these rules you have to live by with this new stomach. But eventually it is no longer the strongest tool in the toolbox."

Now Poff, who is still in the active phase of maintaining her recent weight loss, relies on her gadgets, apps and websites to stay on track. But Armstrong says it's what comes next that is most critical in solving the obesity problem.

"Technology can help us raise our awareness of an issue and track our efforts to change it, but awareness by itself won't

New state obesity data sparks excitement

Tennessee has moved from the third most obese state to the 15th in two years. In addition, it has done something quite rare: it has rolled back the obesity rate. According to the Centers for Disease Control and Prevention (CDC) adult obesity rates dropped from 32.9 in 2009 to 31.7 in 2010. While 2011 data cannot be compared to earlier years because of changes in how the data is collected and compiled, the CDC has now dropped Tennessee into a category of less than 30 percent obesity statewide.

“While obesity rates are beginning to plateau in the U.S. as a whole, rates in Tennessee have actually declined for the last two years in a row. Change is under way in Tennessee,” said Roger Cone, Ph.D., the Joe C. Davis Chair in Biomedical Science at Vanderbilt and a researcher on the biology of obesity.

Cone, who directs the Vanderbilt Institute for Obesity

and Metabolism (VIOM) says he believes Vanderbilt experts like Joan Randall, MPH, have been key in driving change in Tennessee. Randall serves as VIOM’s administrative director and public health advocate and as the executive director of the Tennessee Obesity Task Force (TOT).

Since 2008, Randall has used a multi-sector approach across the state, connecting with experts at Vanderbilt and other academic institutions, as well as Tennessee Department of Health, city planners, school officials, state agencies, policymakers, community advocates, transportation experts, nutritionists, parents, and representatives of Tennessee’s most vulnerable populations. Under her leadership, TOT developed and implemented the CDC-sponsored state plan for obesity prevention: Eat Well, Play More: Tennessee.

Randall says credit goes to grassroots efforts such as schools that share their playgrounds and gymnasiums with families after hours, farm-to-table programs and a walk/bike route on the grounds of a historical battleground. The TOT is a magnet

necessarily lead to motivation. Knowledge is not sufficient to lead to behavior change,” he said.

BARRIERS TO BETTER BEHAVIOR

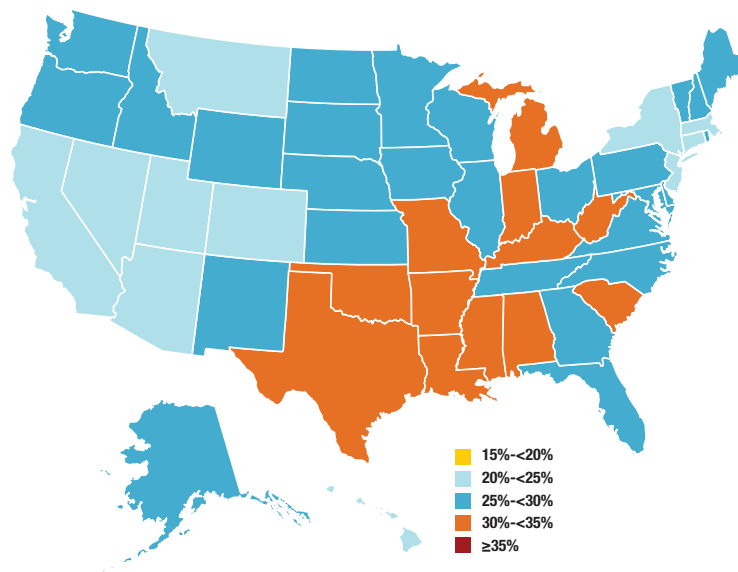
Behavior change is both the key, and, up until now, the elusive Holy Grail in the war against obesity. What is missing, says Vanderbilt expert Joan Randall, MPH, administrative director of the

Vanderbilt Institute for Obesity and Metabolism, is a culture change where the trend toward increasing convenience and comfort is replaced by lifestyle changes that favor activity and a healthy diet.

Some experts say the time is right to meet people halfway in this battle of the bulge. They argue the public interest and desire is there, and so policymakers at every level of society should begin to

PREVALENCE* OF SELF-REPORTED OBESITY AMONG U.S. ADULTS CDC 2011

** Prevalence reflects CDC methodological changes in 2011, and these estimates should not be compared to previous years.*



for these efforts, stimulating collaboration and information sharing. Randall says if TOT has had the effect of building momentum, she is pleased.

“Tennessee is becoming one of the more progressive models around healthy living. An important part of our work is promoting policies that help support personal

responsibility. We want to make it easier for those who want to make healthier choices,” Randall said.

— CAROLE BARTOO

WEB LINK

To monitor Tennessee’s progress and read more about community efforts please visit: www.eatwellplaymoretn.org

embrace efforts to remove barriers that can keep people from developing more permanent healthy behaviors.

“The default conditions within our communities often make the unhealthy choice the easy choice. It is time to change that,” said Randall.

Randall and David Schlundt, Ph.D., associate professor of Psychology, are helping communities find ways to reduce

the physical barriers that prevent change. Each has a critical role with the Tennessee Obesity Task force (TOT), a five-year plan (2010-2015) funded by an agreement with the Tennessee's Department of Health through a cooperative agreement with the Centers for Disease Control and Prevention (CDC). Randall serves as an executive director of TOT, and Schlundt chairs the evaluation efforts.

"People are being physically prevented from being more active," says Schlundt. "I used to live in (Nashville's) Germantown in the 1980s. That was only three miles from campus, but they had sewer grates with the drainage holes arranged so you could sink a tire in and flip the bike. The Complete Streets program is gradually replacing faulty grates, adding bike lanes, and designing more pedestrian and bicycle friendly streets, but there is much still to do," he said.

Randall and Schlundt are working on a pilot program on the Vanderbilt campus through the Center for Nashville Studies using smartphone technology to understand non-car traffic coming and going from campus. The program tracks how many people use streets, sidewalks and parking areas to come and go from campus. The goal is to "qualify" the environment and collect evidence to discover barriers preventing people from walking or biking to work.

Schlundt designed a simple smartphone app to assess pedestrian/bike traffic. For one week in the fall of 2012, Randall and Schlundt each took their smartphones to street corners on the Vanderbilt campus from 7 to 9 a.m., then again from 4:30 to 6 p.m., an effort they will repeat this spring.

"GPS maps the location automatically," Randall says, opening the application on her phone. "Then you'd put in biker or walker, male or female, the weather and temperature."

An electronic survey will round out what employees report as barriers to walking or biking. At the end, it is hoped Vanderbilt administrators may consider



JOHN RUSSELL

solutions, like adding more bike racks around campus. But even more important, Randall says, the tools and techniques for Vanderbilt's project will be shared with other large employers and campuses in town. Ultimately it is hoped the project will serve as a template for using everyday consumer devices like smartphones, to do ground-level research on barriers to healthy lifestyles in any community.

"We are doing the pilot survey first, and then we plan to scale it up to larger population levels. There is a national trend to do this. Investigators at Vanderbilt are on the cutting edge of developing and applying technology to create an environment which supports healthier choices," Randall said.

Individuals like Rachael Poff are living proof that technology is a helpful weapon in the decades-long battle for a slimmer American waistline. The technology continues to reinforce the lessons learned, and to support work to maintain a new healthier lifestyle.

And on a larger scale it appears that something is working. Evidence now suggests obesity rates may be leveling off a bit

Joan Randall, MPH, and David Schlundt, Ph.D., serve on the Tennessee Obesity Task Force and are studying barriers that keep people from walking or biking to work.

in the United States. Tennessee is one of the few states on the CDC's official obesity monitoring site that has even experienced a recent (and first-time) decline in the rate of obesity (see side bar).

Vanderbilt researchers involved in the war against obesity say it is time to strike while the iron is hot, to engage the public and policymakers in an effort to create a culture change that encourages greater health.

"The goal is to create population-based efforts rather than work on obesity at the individual level because one individual at a time won't change the health of our population," Randall said. "We need policies that support personal responsibility. We want to make it easier for those who want to make better choices." **VM**

:: medical center giving

ADVISORY BOARDS AND COUNCILS PLAY A KEY ROLE AT VUMC

Volunteers make their way to Vanderbilt for any number of reasons: a stellar experience as a student, a life-changing experience in health care, a passion for contributing to the community.

Through service on VUMC's advisory boards and councils, more than 250 individuals learn about—and advocate for—a focused area such as student scholarships, cancer or heart research or children's health.

Members are actively involved in helping engage constituents in the community, and they assist in attracting financial resources needed to provide the "margin of excellence."

In addition to serving as participants and advocates, advisory board members contribute philanthropic gifts that support patient care, cutting-edge research—often through discovery grants—and medical and nursing students.

"Vanderbilt has a special place in my

William B. Snyder, M.D., left, chairs the Vanderbilt Eye Institute Board, which advises Paul Sternberg Jr., M.D., chair of the Vanderbilt Eye Institute.



heart," said William B. Snyder, M.D. '57, who chairs the Vanderbilt Eye Institute Board and travels from his home in Dallas to attend board functions. "It's an honor to be the appointed advisory board chair. Because I no longer see patients, the travel time is a minor issue."

Snyder indicated his experience as a student in the School of Medicine spurred his interest in giving back in many ways, including endowing the Phyllis G. and William B. Snyder, M.D. Endowed Chair

in Ophthalmology. "I felt gratitude," he said. "It was an honor to go to Vanderbilt. I had choices between two good residencies when I finished."

Most boards appoint members for three-year terms and convene twice each year for formal meetings. Key administrative leaders, faculty and others participate in the meetings to ensure advisory board members have comprehensive information and can serve as advocates in the community. - ANNE ENRIGHT SHEPHERD

ADVISORY BOARDS AND COUNCILS

WHAT THEY DO

The boards and councils serve as advocates, advisers and fundraising groups for Vanderbilt University Medical Center. The members are actively involved in helping educate and reach important constituents in the community and secure investments and other financial resources required to fund the highest priorities of the Medical Center with their passion for the mission—these are volunteers who want to make a difference.

HOW THEY DO IT



GIVE SUPPORT

Through scholarships, discovery grants and many other areas for highest impact



CREATE PARTNERSHIPS WITH COMMUNITY

As advocates with neighbors, business partners, clients and friends



SHARE EXPERTISE

Ambassadors as patients, parents, alumni and business leaders

WHO THEY ARE

Canby Robinson Society Board • Monroe Carell Jr. Children's Hospital at Vanderbilt Board • School of Nursing Alumni Association Board • Vanderbilt Bill Wilkerson Center Advisory Board • Vanderbilt Eye Institute Advisory Board • Vanderbilt Heart Advisory Council • Vanderbilt-Ingram Cancer Center Board of Overseers • Vanderbilt Kennedy Center Leadership Council • Vanderbilt Medical Alumni Association Board

**SMITH FAMILY LEGACY
SUPPORTS FACULTY TALENT,
ELEVATES TRAINING**

Mark Smith was both a talented engineer and accomplished businessman, a rare combination, says his son, Clay. When he was diagnosed with throat cancer in 2000, the elder Smith looked for an equally unique combination of treatment – access to leading-edge medicine combined with compassionate care. He found what he was looking for at Vanderbilt, and especially in the person of his physician, James Netterville, M.D.

The friendship he developed with Netterville and his appreciation for the compassionate and skilled care he received at Vanderbilt led Smith to establish the Mark C. Smith Chair in Head and Neck Surgery before his death in 2007.

Despite a busy schedule, Netterville stayed in touch with the Smith family after Mark’s death. “He always was and is so thoughtful. Most important, and the most wonderful thing about him is, he’s a good doctor. He listens. You are not a number to him,” said Mark’s widow, Linda Smith.

The Smith family – Linda, Clay and Cynthia – continued to support the endowed chair and additionally have made possible the Smith Family Fellowship in Head and Neck Cancer, currently held by Adam J. Luginbuhl, M.D.

The endowed chair provides “the ultimate enhancement for faculty talent,” said Roland Eavey, M.D., chair of the Department of Otolaryngology. As the current chair holder, Netterville benefits daily from protected time as a mentor, administrator and educator, said Eavey.

The second gift from the Smith family, to endow a fellowship to support trainees in head and neck cancers “allows us to elevate our traditional educational level of the finest available clinical experience by adding the finest molecular cancer training for care in the future,” explained Eavey.

Luginbuhl was a sought-after fellow, so the Smith family was thrilled to provide

support that attracted a high-level trainee to the program. “Adam could have gone anywhere, but he chose Vanderbilt,” said Linda.

Her husband would have approved of the family’s continuing legacy at Vanderbilt, and he would have been fascinated to follow new developments. For example, the way Vanderbilt is bridging its schools of medicine and engineering with research into state-of-the-art techniques such as robotics to provide minimally invasive surgery would have been of great interest, she said.

“Vanderbilt always seems to provide the highest grade of medical treatment without ever forgetting the patient and the importance of interacting with the patient in a loving way. You don’t get this everywhere, and my father recognized that,” agreed Clay.

Clay remembered his father most notably for his commitment to family and then for his ability to communicate well both in the engineering and business realms. Mark, who grew up in Birmingham, won the Alabama state science fair at age 16. His prize was meeting

the renowned rocket scientist, Wernher von Braun, Ph.D., in Huntsville. Mark asked the scientist for a summer job, and his tenacity was rewarded.

After graduating from Georgia Tech as an electrical engineering major, he returned to Huntsville and later founded two companies. The first, Universal Data Systems, Alabama’s first data communications company, was eventually sold to Motorola. In 1986, he founded ADTRAN, a telecommunications company. He served as CEO from ADTRAN’s inception until his retirement as CEO in September 2005. He was board chairman at the time of his death.

Linda and Mark met through mutual friends during his last year at Georgia Tech and they married in 1962. “I was his sounding board,” she said. “He would talk out his ideas and I would listen.”

“Mark would be very proud of his children, his grandchildren and the fact that his legacy is living on through these works,” said Linda.

- JENNIFER JOHNSTON



Clay Smith, Linda Smith and Cynthia Smith Hughes

“Vanderbilt always seems to provide the highest grade of medical treatment without ever forgetting the patient and the importance of interacting with the patient in a loving way.” - CLAY SMITH

GRATITUDE FOR MENTORING LEADS TO CREATION OF NEW SCHOLARSHIP

The spirit of mentorship and support shown to one potential medical student decades ago has come full circle in a bequest to establish a scholarship at Vanderbilt University School of Medicine (VUSM).

Alumnus Tommy Poirier, M.D., '67, and his wife, Susan, have established the scholarship for young medical students to attend VUSM in the name of Poirier's longtime mentor, Judson Randolph, M.D., '53.

Poirier, a gastroenterologist in Sacramento, Calif., received scholarship support to attend Vanderbilt and said that assistance, combined with Randolph's dedication as his mentor, was critically important in his life.

"This is a gift that has been on my mind my whole life; to repay what I received, and also to honor Dr. Randolph. I feel fortunate to be able to do it," Poirier said.

Randolph was a pediatric surgeon and Harvard faculty member practicing at Brigham and Women's Hospital and Children's Hospital in Boston when he met Poirier in the 1960s. Poirier wanted to attend medical school and Randolph was an active mentor and recruitment adviser for VUSM.

"He was a bright, energetic, eager young man," Randolph recalled. "I thought he was outstanding in our interview, and said so in my report to Vanderbilt. I helped arrange for financial support in the hope he would enroll."

Poirier did enroll, but he was not a typical Vanderbilt student. His mother was chronically ill and died when he was 16. His father, who was unable to read or write, traveled frequently as an electrician, leaving Poirier to essentially raise himself.

Poirier said the frequent home visits of the physicians who cared for his mother inspired him. He decided at an early age he would work to become a doctor. After meeting Randolph, his path was clear.



"He was a man who believed in me," Poirier said. "He continued to nurture me through medical school. I still have a stack of about 20 letters from him from the first three years of my education. It was nothing but encouragement."

Randolph said he has enjoyed a lifelong relationship with Poirier and said his actions are proof that paying it forward reaps life's greatest rewards.

"I think because my father was a newspaperman and was always interested in young reporters and helping them with writing, I might have picked up a little from him on the joy of teaching a young person," Randolph said. "I think this scholarship will mirror the support that was given to Tommy. His love for Vanderbilt and his mentoring spirit are the very best examples that we all wish for Vanderbilt students and alumni."

Susan Poirier said the whole family shares a sense of gratitude for the gifts her husband received.

"Tommy has always said who he is, in large part, is due to Dr. Randolph. A lot of people may say words like that, but this truly comes from his heart. I knew this was so important to him that we couldn't not do it," Susan said.

Among other storied highlights of his career, Randolph had the distinction of

From left, Tommy Poirier, M.D., Judson Randolph, M.D., Susan Poirier and Jeff Balsler, M.D., Ph.D.

having been called in to treat Patrick Bouvier Kennedy, the infant son of the late President John F. Kennedy and his wife, Jackie, who died shortly after birth. Throughout his busy practice years he retained roles as a mentor and educator and served more than 20 years on the Vanderbilt Board of Trust, becoming trustee emeritus in 2003.

He retired with his late wife, Comfort, to the Nashville area in the 1990s.

Poirier continues to see patients today. He said he continues to share a love of patient care and mentorship with Randolph, something he feels is important to pass on.

- CAROLE BARTOO

VUSM ALUMNI SHOW SCHOLARSHIP SUPPORT

In this day of physician shortages and broad-based economic hardship, Vanderbilt University School of Medicine (VUSM) alumni have come together to

support the training of the next generation of physicians.

During the recent Reunion 2012, 17 VUSM classes worked to create endowed class scholarships. In addition, overall reunion scholarship fundraising increased by nearly 30 percent.

The Class of 1966 raised the largest scholarship sum among reunion classes this year. Their class fundraising co-chair, John Neeld, M.D., said he was proud of what he and his classmates were able to accomplish.

“Tuition is high, and these young doctors graduate with substantial debt. Vanderbilt competes for top students with other schools that provide scholarships, so our class felt we wanted to be competitive with other top 15 schools in this way,” Neeld said.

The tradition of creating a class scholarship for the annual reunion celebration began during Reunion 2008, when the Class of 1978 created one. That scholarship recipient, Nicholas Giacalone, graduates at the end of this school year.

“I’ve felt most fortunate to be the first recipient of a class scholarship,” Giacalone said. “Not only has it lessened my own financial burden, but it has also provided the opportunity to network with

a great number of kind Vanderbilt alumni over the past four years. Getting to know members of the Class of 1978 and learning about their career development has enriched my medical school experience.”

Since that first class scholarship four years ago, the effort has steadily increased. In Reunion 2010, five classes created class scholarships. This year, thanks to a generous match from an anonymous donor, each class that raised \$100,000 received an additional \$15,000 boost, bringing the total raised for class scholarships during Reunion 2012 to more than \$800,000.

The Development and Alumni Relations Medical Annual Giving team says medical alumni at Vanderbilt are consistently generous, but this year’s reunion stood out for the energy rallied around scholarship. Endowed funds are designed to be renewable, so students for coming generations will benefit from these gifts.

— CAROLE BARTOO

(left to right) VUSM Class of ‘86 members: Rich Rainey, M.D., Mary Anne Ellis, M.D., Newton Allen, M.D., Diane Oliver, M.D., Anne Timmerman, M.D., Ginny Merryman, M.D., and Kathy Bertram, M.D.



ANNE RAYNER

EVENTS CELEBRATE VANDERBILT ENDOWED CHAIR HOLDERS

Twelve Vanderbilt University Medical Center faculty members named to endowed chairs were honored recently for outstanding academic achievements.

“An endowed chair is the highest academic honor that a university can bestow on its faculty,” said University Provost and Vice Chancellor for Academic Affairs Richard McCarty, Ph.D. Jeff Balsler, M.D., Ph.D., vice chancellor for Health Affairs and dean of the School of Medicine, joined McCarty in honoring the new chair holders. They are:

- Shari L. Barkin, M.D., MSHS, William K. Warren Foundation Chair in Medicine;
- David J. Calkins, Ph.D., Denis M. O’Day, M.B.B.S., Chair in Ophthalmology and Visual Sciences;
- Heidi E. Hamm, Ph.D., Aileen M. Lange and Annie Mary Lyle Chair in Cardiovascular Research;
- Craig W. Lindsley, Ph.D., William K. Warren, Jr. Chair in Medicine;
- Luc Van Kaer, Ph.D., Elizabeth and John Shapiro Chair in Pathology;
- John D. York, Ph.D., Natalie Overall Warren Chair in Biochemistry;
- Ian G. Macara, Ph.D., Louise B. McGavock Chair and chair of the Department of Cell & Developmental Biology;
- Arnold W. Malcolm, M.D., MBA, Cornelius Vanderbilt Chair in Radiation Oncology and chair of the department;
- Paul A. Newhouse, M.D., Jim Turner Chair in Cognitive Disorders and professor of Psychiatry;
- Linda D. Norman, DSN, R.N., Valere Potter Menefee Chair in Nursing;
- Reed A. Omary, M.D., Carol D. and Henry P. Pendergrass Chair in Radiology and Radiological Sciences and chair of the department;
- William Pao, M.D., Ph.D., Cornelius Abernathy Craig Chair and director of the Vanderbilt-Ingram Cancer Center’s Personalized Cancer Medicine initiative.

— KATHY WHITNEY



ANN H. PRICE, M.D.
Associate Dean for Alumni Affairs,
School of Medicine

CONTACT

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<https://medschool.vanderbilt.edu/alumni>

Dear Vanderbilt University Medical Alumni,

Vanderbilt Medical Alumni Reunion 2012

Many thanks to all of you who attended our recent Vanderbilt University School of Medicine (VUSM) Reunion 2012 in October. With more than 1,200 attendees, this was one of our largest VUSM Reunion events ever. I hope you enjoyed your time back on Vanderbilt's campus. A special thanks to all of our class chairs, class gift chairs and class party hosts for making this Reunion a truly wonderful event. This year's VUSM Reunion also featured meetings for the Vanderbilt Christie Pediatric Society, the Lonnie S. Burnett Society (Obstetrics and Gynecology), the Thomas E. Brittingham Society (Medicine), and the H. William Scott, Jr. Society (Surgery). Please refer to the back page of this issue for photographs from various Reunion festivities. (Due to our biennial VUSM reunion celebration schedule, our next VUSM Reunion will be celebrated in the fall of 2014.)

VMAA Board Meeting in conjunction with Reunion 2012

The Vanderbilt Medical Alumni Association (VMAA) Board would like to welcome our new VMAA President, Clifton R. Cleaveland, M.D., HS '64, FE '70, who began his two-year term during the Reunion 2012 festivities. William J. Anderson, M.D.'69, was installed as the new President-Elect. Many thanks to outgoing VMAA President David W. Patterson, M.D.'85. Other new board regional directors and specialty society representatives installed during our Reunion 2012 meeting include: Joseph A. Cook, M.D. '64; Maj. Gen. Stephen L. Jones, M.D. '78; Mary Laird Warner, M.D. '90; Loren Marshall, M.D. '84; Mitchell Steiner, M.D., FE '93-'95; Melissa Kaufman, M.D., HS '07; Joseph Wilson, M.D., FE '83; James Felch, M.D. '77, Ph.D. '73, HS '81; Richard Treadway, M.D. '64, HS '64; Thomas Dovan, M.D., HS '00, and Sarah Habibian, M.D '02, HS '06.

VMAA Events and Dinners

Our VMAA Regional Dinner in honor of our Louisville-area medical alumni was well attended on Sept. 28, 2012, at the Louisville Boat Club. Dr. and Mrs. Richard Goldstein served as Louisville area hosts for this event which featured a presentation by

Jeff Balsler, M.D., Ph.D., vice chancellor for Health Affairs and dean of VUSM. In addition, VMAA hosted a dinner held in conjunction with the Association of American Medical Colleges annual meeting in San Francisco, Calif., on Nov. 4, 2012. Bonnie Miller, M.D., senior associate dean for Health Sciences Education, hosted this event along with Robert Gotcher, M.D. '49, BA '46, former VMAA Far-West Regional Director. We are looking forward to 2013 VMAA Regional dinners in St. Louis on Feb. 12 and Houston on June 6.

Vanderbilt Database Updates

Please assist our efforts to keep the Vanderbilt database current. If you have changed home or business addresses or if your preferred email has changed recently, please update through VUConnect at www.vuconnect.com or you may always send contact information updates directly to: medalum@vanderbilt.edu.

Worthy of Note News

The VMAA always welcomes your submissions for our alumni news "Worthy of Note" section in *Vanderbilt Medicine*. Submit news and digital photographs to medalum@vanderbilt.edu; or fax to (615) 936-8475; or mail to VUMC, 21st Ave South and Medical Center Drive, MCN D-8212, Nashville, TN 37232-2106. We love celebrating your very "Worthy of Note" news.

A handwritten signature in black ink that reads "Ann H. Price". The signature is written in a cursive, flowing style.

Read *Vanderbilt Medicine* online, and send in your alumni news at www.mc.vanderbilt.edu/vanderbiltmedicine. Digital photos (200-300 dpi and at least 4 by 6 inches) are always welcome and will be included as space permits.

KEY

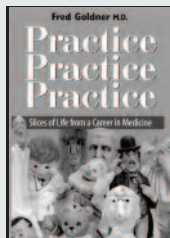
MD - Medical School Graduate
 HS - House staff
 FE - Fellow
 FAC - Faculty



Henry McGill, M.D. '46, HS '47, delivered the Kritchevsky Lecture at the joint meeting of the American Heart Association Council on Epidemiology and Prevention and the Council on Physical Activity and Nutrition.



Robert Gotcher, M.D. '49, visited the Chesmann Church in St. Petersburg last year. Gotcher also is a former VMAA board member and hosted a VMAA dinner event in conjunction with the AAMC meeting in November.



book focus

Fred Goldner Jr., M.D. '48, has published the book "Practice, Practice, Practice, Slices of Life from a Career in Medicine" (Armour and Armour Publications), a compilation of patient stories, pearls of wisdom and true tales from the daily practice of medicine.

initiatives that garnered national recognition for quality outcomes, operating efficiencies, financial performance, strategic positioning and system integration.

Gerald Hickson, M.D., HS '81, FE '83, FAC, assistant vice chancellor for Health Affairs at Vanderbilt, has been named chairman of the National Patient Safety Foundation Board of Directors as well as chairman of the Certification Board for Professionals in Patient Safety.

Jeffrey Prinsell, DMD, M.D. '86, HS '88, was invited to chair and lecture at a surgery symposium in Rome at the World Congress on Sleep Apnea, which is held once every three years.

60s

Arthur Freeman III, M.D. '67, gave the Presidential Address at the Annual Southern Psychiatry Association Meeting. Also on the program was his daughter, **Katie Freeman Sherry, M.D. '01,** who addressed the group on the topic of traditional and non-traditional psychotherapies for children.

80s

Achilles Demetriou, M.D., HS '82, retired as chief operating officer at the Northeast Ohio health system, University Hospitals, on Dec. 31, 2012. He joined University Hospitals in 2005 and has been credited with leading numerous

70s

Robert Carey, M.D. '65, FE '72, received the 2012 Research Excellence Award (sponsored by Novartis) of the American Heart Association Council for High Blood Pressure Research at its annual fall meeting in Washington, D.C. in September 2012. This is the highest award of the Council.

Bedford Waters, M.D. '74, was featured in the March/April 2012 edition of *Cityview* magazine as one of the top doctors in the Knoxville, Tenn., area.

Jeffrey Carter, M.D. '78, HS '80, delivered the 5th Annual Walker-Sinn Lecture in Oral and Maxillofacial Surgery in October 2012 at Parkland Hospital at Southwestern Medical School in Dallas. Carter practices in Nashville and recently had another VUSM alum, **Adam Pitts, DDS, M.D. '07,** join him at the Oral Surgical Institute.

William Petrie, M.D. '72, professor of Clinical Psychiatry, has joined the board of directors of Acadia Healthcare Company, Inc.



Stuart Mackler, M.D., HS '68, FE '71, a retired orthopaedic surgeon in Franktown, Va., is vice-president of the Virginia Board of Medicine, having just finished his first term. He is also an orthopaedic consultant for Operation Smile.



John Cobb, M.D. '78, reached the summit of the Matterhorn in August.

90s

Robert Mericle, M.D. '93, has been named a Compassionate Doctor honoree for 2011. The Patients' Choice annual Compassionate Doctor recognition program honors the top 3 percent of U.S. physicians. He is a neurosurgeon in Nashville.

Rodney Hamilton, M.D., HS '99, was appointed chief medical information officer for ICA, a leading provider of interoperability technology that enables care management and health information exchange.

Gregory Martin, M.D. '94, FE '01, has been named director of the Center for Health Discovery and Well Being at Emory University. Martin is an associate professor of Medicine at Emory University School of Medicine and associate division director for critical care in the division of Pulmonary, Allergy and Critical Care.



Ronald Rosenthal, M.D., FAC '78, (right) made a trip to Antarctica in January 2012 and met up with fellow alumnus, Mike Wilhoit, M.D. '63, (left) and his wife, Trish. The Rosentals live in Wayland, Mass., and the Wilhoits live in Tallahassee, Fla.

2000-

Christopher Petit, M.D. '99, a pediatric cardiologist, joined the Children's Sibley Heart Center in Atlanta. He completed his residency at the Lurie Children's Hospital of Chicago, Northwestern Medical School. His areas of interest include interventional cardiology and single ventricle palliation/outcomes.

JP Norvell, M.D. '04, joined the faculty at Emory University in September 2012 as a transplant hepatologist and assistant professor in gastroenterology in the transplant center.

Yasmine Ali, M.D. '01, FE '08, was elected chair of the Tennessee Medical Association Young Physicians Section at the TMA annual meeting in April 2012. She married Keith M. Sturges, Ph.D., on June 30, 2012. The couple reside in Nashville.

Dipen Parekh, M.D., FE '00, HS '05, has been named chairman of the University of Miami's Miller School of Medicine's Department of Urology. He was previously at



Ann Reilley, M.D., HS '85, was elected the first female president of the Southeastern Society of Plastic Surgeons. Reilley is a plastic and reconstructive surgeon with Associates in Plastic Surgery in Baton Rouge, La.

the University of Texas Health Science Center at San Antonio.

Christopher Paris, M.D., HS '07, interventional cardiologist and a Houma native, recently joined the medical staff at Terrebonne General Medical Center in Houma, La.



Kristie Blum, M.D., FE '01, associate professor of internal medicine at Wexner Medical Center, was recently elected to the Lymphoma Research Foundation's Scientific Advisory Board.



VMAA and VUSM have adopted a College Bound Program class at Gilbert Elementary in Harlandale, Texas.

Tara Schwetz, M.D., FE '12, moved to Washington, D.C., in August 2012. The recipient of the AAAS Science and Technology Policy Fellowship, she is working at the NIH and National Institute of Nursing Research in their Office of Science Policy and Public Liaison.

Kevin Jo, M.D. '03, has joined Hartford Hospital as a gastroenterologist. His areas of interest include inflammatory bowel disease, colon cancer screening, wireless capsule endoscopy and endoscopic treatment of hemorrhoids.

Gus Davis, M.D. '11, and **Sarah Hooper Davis, M.D. '11**, are the proud parents of Elizabeth Garnie, born April 23, 2012.

Vikas Shah, M.D. '07, Ph.D. '05, lives in Lafayette, Calif., where she is a staff pediatric anesthesiologist with Medical Anesthesia Consultants Medical Group, Inc.

Stephen Kappa, M.D. '12, and **Ariel Waters, MSN '10**, were married June 9, 2012, in Nashville, where she works as an acute care nurse practitioner at Vanderbilt and he is a resident in urology.

Everette James Jr., M.D., FAC '00, has written the novel "Knights in White," a work of fiction about the competitive nature of American academic medicine. He and his wife, Nancy Farmer, M.D., reside in Chapel Hill, N.C., and are active in civic and community affairs.

Aaron Dawes, M.D. '11, was selected as a 2013 Robert Wood Johnson Foundation Clinical Scholar, supported through the Department of Veterans Affairs. He will begin his fellowship at the University of California, Los Angeles in the fall.

Gavin O'Mahony, M.D. '06, is a fellowship-trained hand surgeon at Oklahoma University.



Erin Carney, M.D. '08, and **Craig Carney** welcomed a baby boy, **Noah**, on Feb. 5, 2012.

Jonathan Shoopman, M.D., FE '11, has been appointed assistant professor of Anesthesiology and Critical Care at the Medical College of Wisconsin. He provides care at Froedtert Hospital and the Clement J. Zablocki VA Medical Center.

Eddy Yang, M.D., Ph.D., HS '10, was recently named the inaugural holder of the ROAR Southeast Cancer Foundation Endowed Professorship in Radiation-Oncology.

Hani Bleibel, M.D., FE '10, has joined Twin Lakes Regional Medical Center in Leitchfield, Ky.

Beth Riviello, M.D. '06, her husband, **Robert Riviello, HS '06**, and their three-year-old son, Zachary, are living in Rawanda for five months. Beth is working on research of the epidemiology of critical illness, and Robert is helping to lead the surgical portion of a new USAID grant that funds U.S. academic physicians to live in Rawanda and train residents and attending physicians.



Courtney Tibble, M.D. '06, and her husband, **Adam Tibble, M.D. '06**, recently completed their medical training and moved to Northern California where she is a clinical endocrinologist with Sutter Medical Center and he is a cardiovascular anesthesiologist at Travis Air Force Base. They recently welcomed their first child, **Maxwell Carter**, born on July 24, 2012.



Brenessa Lindeman, M.D. '09, and her husband, **Richard**, welcomed son, **Rykard Evan**, on July 12, 2012.



Sarah H. Sell, M.D. '48, professor of Pediatrics, emerita, one of the key players in the development of the childhood vaccine to protect against Haemophilus influenzae type b (Hib), died Oct. 6, 2012. She was 99. Dr. Sell, affectionately known as "Sally," joined the Vanderbilt faculty in 1954. She is survived by sons, Charles and Clive, and five grandchildren.

Stephen Allen, M.D., HS '74, died Sept. 26, 2012. He was 69. Dr. Allen is survived by his wife, Vally; children, Christopher and Amy, and two grandchildren.

Stanley Bernard, M.D. '47, FAC '00, died July 14, 2012. He was 88. Dr. Bernard is predeceased by his wife, Adell; children Susan, Betsy, Stan and Joni, and eight grandchildren.

William Boyce, M.D. '44, died Nov. 11, 2012. He was 94. Dr. Boyce is survived by his wife, Doris; children, Lock, Catherine, Barbara and Fred; 11 grandchildren and 13 great-grandchildren.

Robert Brownlee III, M.D. '45, HS '46, '49, '51, died June 21, 2012. He was 90. Dr. Brownlee is survived by his wife, Katherine; children Jonathan, Robert, Eleanor and Susan; and four grandchildren.

Bert Bryan, M.D. '61, died July 10, 2012. He was 76. Dr. Bryan is survived by his wife, Suzanne; children, Bert, Kelly and Todd, and three grandchildren.

Winston Caine, Jr., HS '67, died Oct. 23, 2012. He was 75. Dr. Caine is survived by his wife, Priscilla; children, Stephen, Matthew and Adam; and eight grandchildren.

John Cook, M.D. '73, HS '74, died July 10, 2012. He was 63. Dr. Cook is survived by his wife, Diana, children, John, Jennifer, Leslee, Amelia and Katherine; and seven grandchildren.

James Fleming, M.D. '58, HS '63, FAC '89, died Aug. 17, 2012. He was 79. Dr. Fleming is survived by his wife, Jane; and children, Janetta, Catherine and Karen, and five grandchildren.

E.S.C. Ford, M.D. '39, died July 6, 2012. He was 97. Dr. Ford was preceded in death by his first wife, Toni. He is survived by his wife, Joanne; children, Sandra and Anthony, and five grandchildren.

Lester Hibbett, M.D. '53, died Oct. 3, 2012. He was 86. Dr. Hibbett is survived by his wife, Elaine; children Susan, Ann, Beth and Emily, and 11 grandchildren.

M. Beckett Howorth Jr., M.D. '46, died Oct. 31, 2012. He was 89. Dr. Howorth is survived by his children, David, Beckett, Richard, Tom and Andy. He is preceded in death by his wife, Mary.

Joseph Kalbac, M.D. '56, died Aug. 27, 2012. He was 80. Dr. Kalbac is survived by his wife, Margaret; children Joseph, Daniel, Melanie, Mark, Melissa and Aimee, and 15 grandchildren.

John Matthews Jr., DMD., HS '72, died Sept. 28, 2012. Dr. Matthews is survived by his wife, Susan; children, John, Sanders and Jackson, and one grandchild.

Charlotte McCutchen, M.D., HS '74, died Sept. 11, 2012. She was 67. Dr. McCutchen is survived by her sister, Lilla.

Alan Ory, M.D. '47, HS '48, died Oct. 31, 2012. He was 90. He was

preceded in death by his wife, Lee. He is survived by children, Tim, Val and John and five grandchildren.

Thomas Pennington, M.D. '51, FAC '00, died Oct. 17, 2012. He was 83. Dr. Pennington is survived by his wife, Phyllis; children, Thomas, Inez and Jennifer; and two grandchildren.

Robert Ragland, M.D., HS '48, died Sept. 27, 2012. He was 92. He was a retired pediatrician and a champion

Jerry Shenep, M.D. '77, died July 26, 2012. He was 60. Dr. Shenep is survived by his wife, Mary Ann; and children, Lori and Melissa.

Melvin Simmons, M.D. '40, died Oct. 27, 2012. He was 96. Dr. Simmons was preceded in death by his children, Melvin and Vickie. He is survived by his wife, Joan; children, Stephanie, Gary and Brett, and six grandchildren.



Denis O'Day, M.D., FAC '01, director of the School of Medicine's Emphasis Program and professor of Ophthalmology and Visual Sciences, died Sept. 9, 2012. He was 76. Dr. O'Day joined the faculty of Vanderbilt in 1972 and served as chair of the Department of Ophthalmology and Visual Sciences from 1992-2002. He was responsible for developing the Tennessee Lions Eye Center at Vanderbilt in 1997. Dr. O'Day is survived by his wife, Ann; children, Luke, Simon and Edward; and four grandchildren.

of environmental causes in Jacksonville, Fla.

Douglas Riddell, M.D. '44, HS '53, died July 9, 2012. Dr. Riddell is survived by his wife, Jeanne; children, Chris, Grace and Jeanne, and four grandchildren.

Steven Rudd, M.D. HS '81, died in June 2012. He was 59. Dr. Rudd is survived by his uncle, James Rudd Sr.

Thomas Sawyer, M.D. '62, HS '64, of Tacoma, Wash., died July 1, 2012.

Carlton Sexton, M.D. '48, died July 20, 2012. He was 87. Dr. Sexton is survived by children, J. Corbin, Carlton, Jonathan, Letitia and Polly, and eight grandchildren.

Sydney Spector, M.D., FAC '00, died Oct. 26, 2012. He was 88. Dr. Spector is survived by his wife, Bettie; and children, Faye and Neil.

Ernest Thorsgard, M.D. '57, died June 7, 2012. He was 88. Dr. Thorsgard is survived by his wife, Ina; children Knute, Eric and Kyja, and nine grandchildren.

Virginia Vader, M.D., HS '01, died June 18, 2012. She was 60. Dr. Vader is survived by her partner, Kevin; and siblings Charles, Thomas, John, Daniel and Amelia.

Luis Valdes, M.D., HS '66, died Aug. 15, 2012. He was 89. Dr. Valdes is survived by his wife, Thusnelda; and children, Cecilia, Maria, Luis and Ignacio.

Robert Warriner, M.D. '76, died Aug. 2, 2012. He was 62. Dr. Warriner is survived by his wife, Karen; children, Amy and Lesley, and one grandchild.

Wade Young, M.D., FE '93, died Oct. 9, 2012. He was 51. He is survived by children, Koury and Hallie; and his parents and sister.



Gottlieb C. (Bud) Friesinger II, M.D., professor of Medicine, emeritus, and the first director of the Division of Cardiology, died July 28, 2012. He was 83. Dr. Friesinger came to Vanderbilt from Johns Hopkins in 1971 to be the director of the Division of Cardiology, a position he held until 1990. He remained on the faculty in an active role until 2002. Dr. Friesinger is survived by his wife, Janet; children, Gretchen, Kristin, G. Christian, and Alison; and six grandchildren.



Reunion Weekend 2012

1) Members of the class of 1966

2) Members of the class of 1991 and their spouses: John Zic, M.D., LeeAnn LoCicero, Ricky LoCicero, M.D., Mary Zic, Bill Cooper, M.D., and Amy Cooper

3) Quinq Society inductees and members of the class of 1963: Ron Overfield, M.D., Betty Lentz (on behalf of the late Joseph Lentz, M.D.) and Newt Lowvorn, M.D.

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— *Lindsey Parks,*
Vanderbilt University
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