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Tribute to
Harry Jacobson, M.D.

Vanderbilt Medicine

SUMMER 2009



Are there enough doctors?

Seeking creative answers to
the provider shortage

Aloha

VUSM's Brigham Au, his wife, Anna, left, and other family members donned leis at graduation. For more graduation photos, please see page 56.



JOE HOWELL

VanderbiltMedicine

VOLUME 26, NUMBER 2

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

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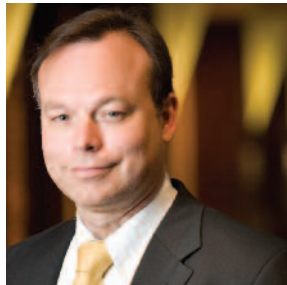
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The challenges facing medicine are exacerbated by rapidly increasing demand for health care amidst a declining supply of physicians, nurses and other health care providers.



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DEAN DIXON

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BY JEFF BALSER, M.D., PH.D.
Vice Chancellor for Health Affairs

This marks my first edition of *Vanderbilt Medicine*



JOE HOWELL

as vice chancellor for Health Affairs. It seems fitting (and only a little ironic) that in an issue devoted to the looming shortage of health care providers, the first thing I speak of is the retirement of one of the greatest physician leaders that academic medicine has ever produced. On June 1, Harry Jacobson, M.D., stepped down from a post he held for 12 years – years that reflected his energy, his breadth of vision and his extraordinary capacity to attract the finest scientists, clinicians and educators to invest their careers and their futures at Vanderbilt. It was a dozen years notable for the amazing growth and remarkable achievements.

While the accomplishments of the last decade have been transformative at Vanderbilt and elsewhere, the challenges facing medicine have grown even faster, and are now unprecedented in scale and scope. Care is too costly. Access is inequitable and far too limited. And our public health statistics in many areas are no better than those of Third World countries. The impending crisis is exacerbated by rapidly increasing demand for health care amidst a declining supply of physicians, nurses and other health care providers.

It is apparent that medicine and the way we practice must change. In this issue of *Vanderbilt Medicine* we explore one of the many issues that confronts health care. We all know the statistics. By 2025 the shortage of physicians could top one quarter of a million – that is if we continue to practice medicine the way we always have. Beyond a call for change, we hope this issue will paint a picture of real reform, illustrating how we are beginning to change the way medicine is practiced

through a handful of current initiatives at Vanderbilt – making the entire health care team far more productive, while dramatically cutting the cost of care and taking a quantum leap in improving quality.

Transformative change requires us all to re-imagine the way we practice. We need to build different care teams using the skills and abilities of a new and enlarged group of professionals from nurses to pharmacists to health coaches. We must learn how to both train and practice in teams – not as disconnected individuals in distinct professional silos. With world-class schools of medicine and nursing both engaged and committed to innovation, Vanderbilt has an exceptional opportunity to explore new models, and to lead national efforts aimed at re-conceptualizing the health care workforce.

There is no doubt that the expanded use of information technology will extend our reach, our ability to work as teams, and our quality as caregivers; in this arena Vanderbilt has broad, unparalleled capabilities and a longstanding tradition of leadership. We will need exceptional information tools to allow us to see, monitor and guide the care of many more patients, as we train more doctors, more nurses, and a wide array of health care professionals to effectively use these productivity and quality tools.

If we remain open-minded and innovative in seeking creative answers to the provider shortage, we have the potential to discover lasting solutions that can address even broader challenges in health care – and in doing so re-shape the future of medicine, here and across the globe. **vm**

News and happenings at Vanderbilt University Medical Center

VUSM students discover their future on Match Day

Match Day for Vanderbilt University School of Medicine's Class of 2009 was more than a thrilling event — it was life changing. At 11 a.m. Thursday, March 19, each member of the graduating class learned what his or her future held.

Match Day is the crowning moment when thousands of medical students across the country learn where they will take the next step in their medical training: their residency.

The students started the process a year ago by listing the residencies that interested them. After completing applications and attending interviews, they ranked the programs, which in turn ranked them. A computer then matched programs with students to give each their best choice. On Match Day, the results were revealed simultaneously nationwide.

Of the 98 students matching with residencies across the country, 32 will remain at Vanderbilt. A host of other students matched at additional top programs, including Johns Hopkins, the Cleveland Clinic, the Mayo Clinic, Massachusetts General, New York Presbyterian-Weill Cornell, Barnes-Jewish Hospital, Beth Israel Deaconess, Cincinnati Children's and Brigham and Women's.

This year the School of Medicine matched 12 students underrepresented in medicine — the largest number in the school's history.

"We know how fantastic our medical school graduates are, and it is clear that the best residency programs around the country know it, too," said School of Medicine Dean Jeff Balsler, M.D., Ph.D. **VM**

— LYNNE HUTCHISON AND CAROLE BARTO



Vernon Rayford will be going to Massachusetts General Hospital.

Compounds may be new class of cancer drugs

A team of Vanderbilt University Medical Center investigators has developed a group of chemical compounds that could represent a new class of drugs for treating cancer.

The compounds are the first selective inhibitors of the protein phospholipase D (PLD), an enzyme that has been implicated in multiple human cancers including breast, renal, gastric and colorectal.

The new inhibitors, reported in the February issue of *Nature Chemical Biology*, block the invasive migration of breast cancer cells, supporting their further development as antimetastatic agents. They will also be useful tools for understanding the complex roles of PLD in cellular physiology, said H. Alex Brown, Ph.D., professor of Pharmacology and one of the team leaders.

"PLD is associated with many fundamental cellular processes like secretion, migration, growth and proliferation. But the absence of selective inhibitors has really interfered with the ability of biologists to study this important enzyme," Brown said.

There are two related "isoforms" of PLD: PLD1 and PLD2. Both PLD enzymes produce phosphatidic acid, a key lipid metabolic and signaling molecule. But whether the two PLDs have different roles is an open question, one that the new isoform-selective inhibitors can now be used to address.

Brown and colleagues had discovered that PLD was important to the invasive migration of breast cancer cells in culture using a genetic tool called small interfering RNA (siRNA).

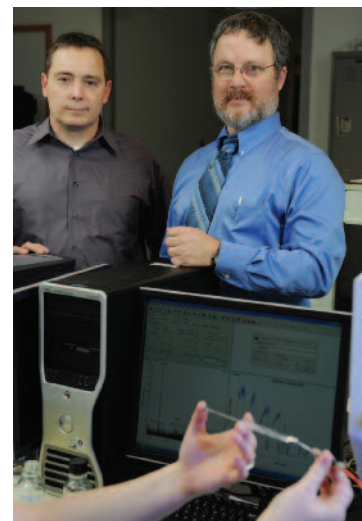
"When we had evidence from siRNA and other methods that blocking PLD resulted in dramatic effects of blocking metastatic invasion of breast cancer cells, we were highly motivated to attempt to make isoform-selective inhibitors," Brown said.

Craig Lindsley, Ph.D., and his group used a previously described PLD inhibitor as a starting point for a chemistry process called diversity-oriented synthesis. The team screened resulting compounds for activity against PLD1 and PLD2 using *in vitro* and cell-based screening tools developed in Brown's laboratory.

The researchers demonstrated that the compounds act directly on the PLD enzymes (using purified proteins), and they showed that they blocked the invasive migration behavior of three different breast cancer cell lines.

"These inhibitors are the key tools we need to really probe the biology, and we're obviously hoping to develop them for therapeutic applications too," Brown added. **VM**

— LEIGH MACMILLAN



Craig Lindsley, Ph.D., left, and H. Alex Brown, Ph.D., are studying a group of chemical compounds that could represent a new class of cancer treatment drugs.



Making the List

For the first time, Vanderbilt has been named one of the top 100 best places to work in the United States in *Fortune* magazine's annual survey, and it is the first educational institution to ever be named to the list. The ranking encompasses approximately 21,000 employees at Vanderbilt University and Vanderbilt Medical Center. More than 81,000 employees from 353 companies responded to the survey nationwide, and a wealth of further information is submitted by management. The survey was conducted by *Fortune* in conjunction with the Great Place to Work Institute, based in San Francisco. The full list can be accessed at www.greatplacetowork.com.

• • •

The Monroe Carell Jr. Children's Hospital at Vanderbilt was ranked No. 15 on a listing of best children's hospitals in the country by *Parents* magazine, the third national accolade earned in the past year. The rankings are based on a 250-question survey of the hospital's performance, including patient outcomes, staff qualifications, patient safety efforts, research and the number of complex procedures performed. The listings were published in the February issue of *Parents*.

• • •

Vanderbilt University Medical Center has been recognized for the first time among the top 100 U.S. hospitals that are setting the nation's benchmarks for cardiovascular care in a study by Thomson Healthcare. The study appeared in the Nov. 17, 2008, issue of *Modern Healthcare* and examined the performance of 970 hospitals by analyzing clinical outcomes for patients diagnosed with heart failure and heart attacks and for those who received coronary bypass surgery and angioplasties. Vanderbilt was one of 30 winners among teaching hospitals with cardiovascular residency programs. **VM**

Technique offers gentler scoliosis surgery option

Joseph Cheng, M.D., director of the Neurosurgery Spine Program at Vanderbilt University Medical Center, and Kurt Eichholz, M.D., assistant professor of Neurosurgery, are two of just a handful of surgeons in the nation who are performing a new, less-invasive scoliosis surgery.

The advanced procedure realigns the spine through several much smaller incisions, using retractor tubes and specialized instruments and implants.

During the surgery, Cheng carefully works through a three-inch incision. Using an osteotome, a chisel-like tool used to cut bone, and a rubber mallet, he chips away at the spine. Beside him, titanium hardware sits arrayed on a tray. When the procedure is finished, he uses two metal rods, 17 screws and two cross-link plates to reconstruct the backbone.

The technique takes 20 percent to 30 percent longer than the open-spine method.

The result: Patients are up walking more quickly, require less pain medication, lose less blood and leave the hospital sooner. "The recovery is typically three to five days versus seven to 10 for open surgery," Eichholz said.

"This really isn't a revolutionary idea," Cheng said. "It's an evolution. That's the trend in medicine, asking 'what can we do to help our patients and get them better faster?'"

"Over time, we've started readapting our surgical techniques to ask, 'can we do this better, with less trauma to the patient, and still accomplish the same goals?'"

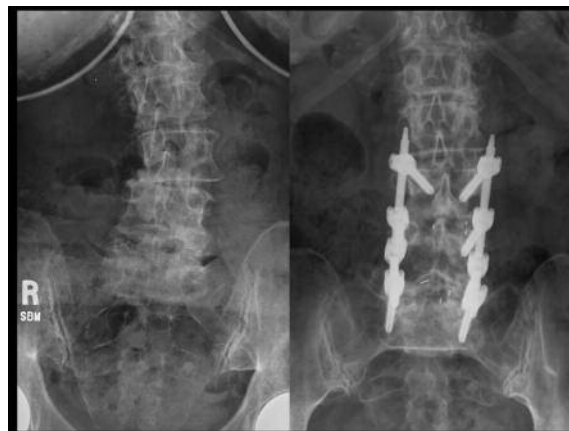
The surgery itself isn't different, Cheng explained.

"At the end of the day, what we're trying to accomplish is all the same," he said. "The only difference is that we're trying to do it in a kinder, gentler way. We're getting our patients out of the hospital sooner, they're feeling better, they're recovering better and they seem to recover faster."

Cheng estimated that about 15 percent of deformity surgeries could be performed this way.

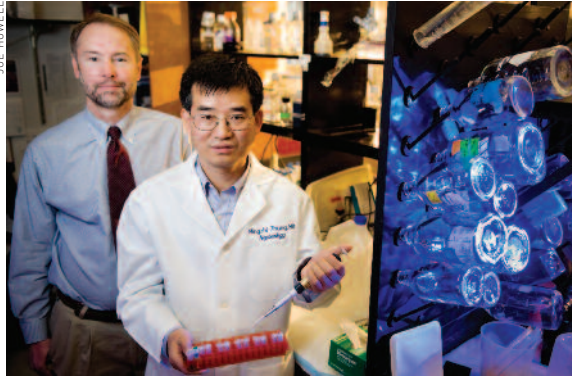
"The patients benefiting the most seem to be those who would not have done well with a longer hospitalization stay," he said. "That includes patients who need to return to work quickly or want to stay more active, as well as older patients who are at higher risk of complications from a longer hospital stay, such as pneumonia." **VM**

- LAURIE HOLLOWAY



Scoliosis curves the spine of a patient, left. Using a new technique, right, implants are placed through several small incisions to realign the spine.

Raymond Harris, M.D., left, and Ming-Zhi Zhang, M.D., in their Medical Center North laboratory



Licorice compound offers cancer prevention strategy

A chemical component of licorice may offer a new approach to preventing colorectal cancer without the adverse side effects of other preventive therapies, Vanderbilt University Medical Center researchers report.

In the study published in the *Journal of Clinical Investigation*, Raymond Harris, M.D., Ming-Zhi Zhang, M.D., and colleagues show that inhibiting the enzyme 11-beta-hydroxysteroid dehydrogenase type 2 (11 β HSD2) — either by treatment with a natural compound found in licorice or by silencing the 11 β HSD2 gene — prevents colorectal cancer progression in mice predisposed to the disease.

One promising target for colorectal cancer chemoprevention is the enzyme cyclooxygenase 2 (COX-2), which promotes colorectal cancer progression via the action of the prostaglandins. Inhibiting this enzyme — with non-steroidal anti-inflammatory drugs (NSAIDs) like ibuprofen or with selective COX-2 inhibitors like Vioxx or Celebrex — reduces the number and size of colon polyps in mice and in patients with an inherited predisposition to colon cancer. However, both types of drugs cause serious adverse side effects that limit their utility for chemoprevention.

Harris and Zhang have been investigating COX-2 regulation in the kidney. They previously found that inhibiting 11 β HSD2 in the kidney suppresses COX-2 expression in that organ.

The colon is one of the only other organs (besides the kidney) with high expression of 11 β HSD2, suggesting that this enzyme might play a role in colorectal cancer progression.

The researchers examined expression of 11 β HSD2 in human colon polyps and in the colons of mice predisposed to colon cancer. They found that 11 β HSD2 was increased in polyps found in both mice and humans and correlated with COX-2 expression and activity.

They then inhibited 11 β HSD2 with glycyrrhizic acid, the main sweet-tasting component of licorice, and by silencing the gene for 11 β HSD2.

Both treatments inhibited the production of prostaglandin E2 (an inflammatory molecule produced by the COX-2 enzyme) and prevented the development of polyps (adenomas) and tumor growth and metastasis.

Because 11 β HSD2 is highly expressed only in kidney and colon, blocking the enzyme produces effects specific to those tissues — unlike NSAIDs, selective COX-2 inhibitors, and steroid treatments that can prevent cancer progression but also cause serious side effects like gastrointestinal irritation, cardiovascular events, and immunosuppression, respectively.

Licorice, Harris noted, has been used as a nutraceutical for thousands of years for ailments ranging from coughs to constipation.

But even licorice is not without side effects; long-term consumption can lead to low blood potassium and increases in blood pressure — side effects linked to the inhibition of 11 β HSD2. **VM**

— MELISSA MARINO

\$7.5 million grant to support imaging program

The National Cancer Institute (NCI) has awarded a \$7.5 million grant to the Vanderbilt University Institute of Imaging Science and the Vanderbilt-Ingram Cancer Center to establish a new imaging program.

The five-year grant will support the Vanderbilt In Vivo Cellular and Molecular Imaging Center (ICMIC), which will provide enhanced scientific and technical resources to develop innovative molecular imaging studies of cancer biology and to advance translational imaging research in cancer care. A special focus of the program will be to develop innovative imaging biomarkers that can be used to predict and measure whether patients respond to specific treatments.

"We are pleased to receive this award that will support our outstanding team of investigators from several disciplines, including leaders in imaging science, clinical oncology, molecular probe development and basic cancer sciences," said John Gore, Ph.D., director of the Institute of Imaging Science and principal investigator for the new grant. "This grant recognizes the success of our multidisciplinary approach to medical research and the results of our institutional investments in imaging in recent years."

The ICMIC will create several specialized resources, including an expanded small animal imaging core, a chemistry core, a radiochemistry core and a biostatistics core. The research will focus on the development of sensitive new imaging probes and allow researchers to assess how specific *in vivo* molecular signal transduction pathways, and physiologic changes caused by changes in these pathways, are modified by cancer and cancer therapy. **VM**

— DAGNY STUART

Birthday may play role in asthma risk

Children who are born four months before the peak of cold and flu season have a greater risk of developing childhood asthma than children born at any other time of year, according to VUMC researchers.

In the Tennessee Asthma Bronchiolitis Study (TABS), which involved an analysis of the birth and medical records of more than 95,000 children and their mothers, researchers addressed the question of whether winter respiratory viral infections during infancy cause asthma.

They asked if there is a relationship between winter virus circulation (cold and flu season) during infancy, timing of birth, and the development of childhood asthma.

They found that the timing of when a child is born in relationship to the annual cold and flu season alters the risk for developing asthma.

Autumn-born babies, who are about 4 months old when the winter virus season peaks, have a nearly 30 percent increased risk of developing asthma compared with births during other times of the year, and this risk was similar to or greater than other well-established risk factors for asthma.

The research, conducted by post doctoral fellow Pingsheng Wu, Ph.D., and colleagues, appears in the *American Journal of Respiratory and Critical Care Medicine*.

"This holds promise for asthma prevention — as this evidence suggests that avoiding these early respiratory infections during infancy may have long-term as well as short-term benefits," said Tina Hartert, M.D., associate professor of Medicine, Allergy, Pulmonary and Critical Care Medicine and director of the Center for Asthma Research at Vanderbilt. **VM**

— KATHY WHITNEY

Chris LeMelle, M.D., carries conjoined twins Keylee and Zoey Miller from the transport crib to the operating room.



Teamwork, planning key to separating conjoined twins

Three-month-old conjoined twins Keylee Ann and Zoey Marie Miller were separated in a complex operation on April 7 at the Monroe Carell Jr. Children's Hospital at Vanderbilt.

The surgery was the first of its kind at Vanderbilt and is believed to be the first successful separation of conjoined twins in Tennessee. It was carefully planned and carried out by a team of 30 medical, surgical and nursing personnel.

"It was pretty exciting to finally get them separated," said Wallace (Skip) Neblett, M.D., lead surgeon. "We talked about this and planned it for months as the babies matured."

The girls were born Jan. 4 in Johnson City, Tenn., and were immediately transferred via LifeFlight to Vanderbilt's Neonatal Intensive Care Unit (NICU). Together, they weighed 4 pounds, 12 ounces. The twins were cared for in the NICU for three months until they grew strong enough for the separation surgery.

By the day of the separation surgery, the twins weighed a combined 7 pounds, 10 ounces and were in good health.

James O'Neill, M.D., professor of Surgery, Emeritus, took part in the separation of Keylee and Zoey, and has participated in the surgical separations of 23 sets of conjoined twins elsewhere, more than any other physician in the country. He planned and led three drills in the weeks leading up to surgery.

"We wanted this to go smoothly, so we practiced to make sure we had all the essentials ready for potential complications," said O'Neill.

The preparation alone, which involved starting IVs and keeping equipment cords and drapes out of the path of the constantly moving team members, took four hours. The first incision was made at 11:25 a.m. The babies were separated for closure procedures just 90 minutes later, at 12:52 p.m.

Their recovery has been uncomplicated and the family has taken them home. **VM**

— CAROLE BARTOO AND LAURIE HOLLOWAY

WEB LINK
www.mc.vanderbilt.edu/vanderbiltmedicine

Caregivers confounded by cold medicine labels

BY CAROLE BARTOO

When children aren't feeling well, parents naturally want to make them feel better. With a plethora of over-the-counter cough and cold medications at their disposal, it's very easy – and convenient – to treat the symptoms that are making their cherubs miserable.

However, Vanderbilt investigators have found that parents often misunderstand the product labels on over-the-counter cough and cold medicines for children.

The researchers went to clinics, many of which serve at-risk populations, and surveyed 182 caregivers of children one-year-old or younger about the use of OTC cough and cold medication. They found most parents read labels incorrectly and would use the products in a child under the age of 2, despite a product label specifically advising that a doctor be consulted before doing so.

"This study has opened our eyes for how we, as parents, read and understand labels. There are important opportunities to change current labeling and improve parental understanding and child safety," said senior author Russell Rothman,

M.D., assistant professor of Internal Medicine and Pediatrics.

Rothman and Nicole Lokker, Pharm.D., report their findings in the June issue of *Pediatrics*. They say this study is important because medications can be harmful when used incorrectly in young children.

The parents and caregivers were shown the labels of four children's cold and cough products. After looking at the front of the product, about 86 percent said it was appropriate for a child younger than 2. After examining the entire package, more than half of the caregivers said they would give at least one of the products to a 13-month-old child with cold symptoms.

While almost every caregiver surveyed had adequate literacy skills, only 17 percent had "numeracy" skills at a ninth grade level. Rothman has completed previous studies that show a large portion of the population in the United States has difficulty reading food labels properly because of low numeracy skills.

"People can understand more when there is plain language right on the front and when dosing tables are clear



Russell Rothman, M.D., and colleagues are studying how well parents understand the labels on child cough and cold medicine.

and placed more prominently on the label. It is also helpful if measuring devices that can be understood by all are included," Rothman said. "But right now, none of those things are specifically required."

In the time since the completion of the study in 2007, all four of the products used in the study have been voluntarily pulled off the shelves by their manufacturers after the FDA questioned the safety and efficacy of cold medicines for children and recommended they not be used under the age of 2. An FDA advisory committee has found the products may not even be safe and effective for use in children under age 6, although it has not formally changed its recommendations in that age group. Currently, many manufacturers continue to market products aimed at children 4 years old and above.

Over-the-counter cough and cold medications have been implicated in the deaths of more than 100 infants nationwide over the last 40 years and have been associated with numerous hospital visits.

"A lot of these medications are not proven to be effective, so parents should not rush to use them in the first place. Until we have requirements for clearer labeling, if parents are going to use over-the-counter medications they need to make sure the instructions are understood, and they should talk with their doctor or other health care provider before using them," Rothman said. **VM**

THE
{ JACOBSON }

LEGACY



Vanderbilt University Medical Center was at a critical turning point in 1997 when a 50-year-old nephrologist and health care entrepreneur named Harry Jacobson, M.D., took over as CEO.

His predecessor, the legendary Roscoe “Ike” Robinson, M.D., had led the Medical Center through a major growth spurt. But now, because of dwindling reimbursement under Medicare, Medicaid and managed care, “the operating margins for the clinical enterprise were pretty thin,” Jacobson recalled. 🌿 The first imperative was to cut costs and negotiate better reimbursement rates. That wouldn’t be enough, however, to preserve and strengthen VUMC’s three missions: patient care, education and research. 🌿 So Jacobson, a farsighted physician-scientist who’s as comfortable in the corporate board room as he is in the laboratory, pursued an ambitious, multi-pronged strategy that can be summed up in one word: growth. 🌿 “Growth is just the right thing to do,” he told Vanderbilt’s student newspaper, *The Hustler*. “The research done in academic centers will determine the future of health care.” 🌿 Jacobson, now 61, retired in June after achieving much of what he set out to accomplish. 🌿 VUMC not only weathered what he dubbed a “financial perfect storm,” but its growth since then has been nothing short of astonishing.

WRITTEN BY **BILL SNYDER**
PHOTOGRAPH BY **JOE HOWELL**

Tribute to
Harry Jacobson, M.D.



During the past 12 years that Jacobson served as the university's vice chancellor for Health Affairs, annual research funding quadrupled to more than \$400 million. VUMC's performance exceeded expectations by nearly every measure – annual net revenue, the number of faculty and staff, space for research and patient care, and national rankings.

"We're on the cusp of true greatness," said Lawrence Marnett, Ph.D., director of the Vanderbilt Institute of Chemical Biology. "In proteomics, in chemical biology, in drug discovery, in clinical translation, we're major players in all of that."

"Vanderbilt is now viewed nationally as the academic center that is moving the fastest in terms of steps toward more effective science, toward more effective health care," added Vanderbilt's informatics guru, Bill Stead, M.D., who chairs the Center for Better Health. "We're at that stepping stone. Hopefully, we will carry forward and finish it."

What is it about this out-of-the-box thinker that made Jacobson such an effective leader?

When asked to name his greatest strengths and most enduring legacy, his

colleagues more often than not point to his people skills rather than to the bricks and mortar he leaves behind.

"In spite of all his outward success, it is what is inside of him that makes him so special – his character, generosity, high standards, personal warmth," said Thomas Burish, Ph.D., provost of the University of Notre Dame, who served as Vanderbilt Provost from 1993 to 2002.

"Harry knows the value of reasoned positions, financial projections, data and outcome metrics, benchmarking, and all the approaches that our era values," Burish continued. "But he also knows that no appeal is stronger than one built upon candor, conviction, fairness, personal relationships and core principles."

"He's an inspiring leader," added Joe B. Wyatt, Vanderbilt's chancellor from 1982 to 2000. "He supports his people at all levels. He doesn't undercut them ... and he's certainly willing to stand up for what is right."

Jacobson admitted that he has the ability to "energize people." But he added quickly, "I don't like people to make a commotion over me. It embarrasses me a little bit ... I feel like I'm expected to do well, and if I do the right thing and I do

well, then I've done what I'm supposed to do. It's not something special."

Jacobson's view of the world was forged in the rough-and-tumble neighborhood on the South Side of Chicago where he grew up. Born outside of Munich in 1947, he emigrated with his parents, Rudy and Lisa, and his three siblings when he was 4.

His father had been drafted into the German army during the war and survived a Soviet prisoner-of-war camp. In his adopted land he became an accountant, ultimately retiring as chief tax accountant for Amoco. He challenged his children to do well academically. Jacobson said his parents, who died in 1996, "were very, very proud and supportive of their children."

The children in their integrated neighborhood were another matter. Jacobson remembers how they picked on his older brothers because they couldn't speak English when they first enrolled in public school. But rather than angering or frightening him, the experience taught him tolerance. "I just view people as people," he said. "Prejudice is something I have no room for."

The only member of his family to go to medical school, Jacobson earned his M.D. from the University of Illinois in Chicago in 1972, and met his wife, Jan, in the laboratory when he started his nephrology fellowship at the University of Texas Health Science Center in Dallas.

Jacobson was recruited to Vanderbilt in 1985. Within a decade he had moved up to the executive suite as deputy vice chancellor for Health Affairs.

Along the way, he held more than \$1.5 million in active grant support, published more than 100 peer-reviewed publications and a textbook on kidney disease, served on and chaired national advisory committees, and explored the corporate side of medicine through such companies as Nashville's Renal Care Group, which he co-founded.

All that prepared him for the grand challenge he set for himself and his team when he became vice chancellor – to

Harry Jacobson relaxing in his office; enjoying the VUSM first-year orientation with colleagues; hosting the State of the Medical Center address.



{ Reflections on a Leader }

"It has been a pleasure working with Harry on the Shape the Future Campaign as well as the growth and expansion of the Vanderbilt-Ingram Cancer Center. I look forward to continuing to collaborate with Harry in new ways as we work to improve the health of our community, state and nation."

*Orrin Ingram, President,
Ingram Industries Inc.*



"Harry really had vision. He knew what it was going to take ... I think he knew not only the value but the absolute essential for a great university was to build up the academic side of it, and hire first-class chairs and then get money for first-class research people. And he did that well. I think that was his great strength."

*Mildred T. Stahlman, M.D., professor
of Pediatrics and Pathology*



"Vanderbilt Hospital and the Monroe Carell Jr. Children's Hospital at Vanderbilt greatly contribute to the quality of life in our city, and those institutions would not be what they are today without the work of Harry Jacobson. He is a recognized leader in health care and a true entrepreneur. Nashville is a better city because of the contributions Harry has made."

Mayor Karl Dean

"The Vanderbilt-Ingram Cancer Center has enjoyed a wonderful and productive relationship with Harry. Personally, I will always be grateful to him for the opportunity to lead the Center. The Medical Center has experienced phenomenal growth under his leadership, with cancer being a key area of focus."

*Jennifer Pietenpol, Ph.D., director of
Vanderbilt-Ingram Cancer Center*



"A quiet man in constant pursuit of excellence – gifted with creative genius, an inquisitive mind and the ability to blend the unblendable. His successful career in medicine and health care has placed Harry on the national scene. He reflects great credit on Vanderbilt University."

*Ed Nelson, Emeritus member of the Board of
Trust and the former chairman of the
Medical Center Board*



"There is nothing you cannot accomplish with hard work and will. That summarizes Dr. Jacobson's advice to me as a fellow and young faculty member. Despite my sometimes skepticism, he was always correct, and he certainly taught me to stretch and reach for things I might have been otherwise too timid to do."

*Julia Lewis, M.D., director of the Nephrology
Fellowship Program and professor of
Medicine*

"I will sorely miss Harry. It's been gratifying to have been part of what he has accomplished over the years. I was recruited by Harry and Lee Limbird, and I personally feel very lucky to have been mentored by him."

*Heidi Hamm, Ph.D., Earl W. Sutherland Jr.
Professor of Pharmacology and chair of the
department*



"Harry has been the key visionary cultivating the growth of successful trans-institutional initiatives such as the Institute of Imaging Science. He has put together a unique framework and environment for research scientists to be successful here, and really understands how important it is for leaders to engage actively in supporting programs and the efforts of the faculty."

*John C. Gore, Ph.D., Chancellor's University
Professor of Radiology and Radiological
Sciences and Biomedical Engineering and the
director of the Institute of Imaging Science*



"Like all great leaders, Harry leaves a legacy of lasting change. I believe his influence will continue to be felt as his dreams and goals for VUMC are realized in the years ahead."

*Jeffrey P. Conn, Ph.D., Lee E. Limbird
Professor of Pharmacology and director
of the Vanderbilt Program in
Drug Discovery*

"The formation of the Vanderbilt Heart and Vascular Institute, and its success, would not have been possible without Dr. Jacobson's vision and will, the resources he committed to it, and the guidance he provided."

*John G. Byrne, M.D., William S. Stoney Jr.
Professor of Cardiac Surgery and chair of the
department*



"I was most impressed with Dr. Jacobson's commitment to developing great and nationally recognized clinical programs. His desire for Vanderbilt to lead in the development and implementation of evidence-based medical practice and demonstrate clinical outcomes beyond the episode of care reflected his desire to truly improve patient care."

*Larry Goldberg, executive director and CEO
of Vanderbilt University Hospital*



"One of the most important questions one asks after the tenure of a longtime leader like Harry Jacobson is: Did he make a difference? Did he leave Vanderbilt University Medical Center stronger than he found it? From all I have seen and personally witnessed, the answer is yes."

*Thomas Burish, Ph.D.,
Vanderbilt provost 1993-2002
Provost, University of Notre Dame*



LAYING A SOLID FOUNDATION

Organizations are often defined by eras, and the most successful organizations build on the excellence of one era and carry it through to even greater achievement in the next. One of Harry Jacobson's greatest strengths is his ability to recruit top talent to Vanderbilt. Many of his appointees remain here, ensuring that his legacy for excellence continues, while others have been recruited to nationally-renowned programs.

Eric G. Neilson, M.D., Hugh J. Morgan Professor of Medicine and chair of the department, joined Vanderbilt in 1998 from the University of Pennsylvania.

Walter J. Chazin, Ph.D., Chancellor's Professor of Biochemistry and Physics and director of the Center for Structural Biology, joined the Vanderbilt faculty in 1999 from Scripps Research Institute.

Heidi E. Hamm, Ph.D., Earl W. Sutherland Jr. Professor of Pharmacology and chair of the department, came to Vanderbilt in 2000 from Northwestern University Institute for Neuroscience.

Lynn Matrisian, Ph.D., joined the Vanderbilt faculty in 1986 and was named chair of the Department of Cancer Biology in 2000. The department was the first new basic science department since the establishment of Microbiology and Immunology in 1955.

Richard T. D'Aquila, M.D., Addison B. Scoville Professor of Medicine and director of the Center for AIDS Research, joined Vanderbilt in 2001 from Harvard Medical School and Massachusetts General Hospital.

Robert L. Macdonald, M.D., Ph.D., chair of the Department of Neurology, came to Vanderbilt in 2001 from the University of Michigan School of Medicine.

Larry R. Churchill, Ph.D., Ann Geddes Stahlman Professor of Medical Ethics, came to Vanderbilt in 2002 from the University of North Carolina Chapel Hill.

John C. Gore, Ph.D., Chancellor's University Professor of Radiology and Radiological Sciences and Biomedical Engineering and the director of the Institute of Imaging Science, came to Vanderbilt from Yale in 2002.

Billy G. Hudson, Ph.D., Elliot V. Newman Professor of Medicine and director of the Matrix Biology Center, joined Vanderbilt in 2002 from Kansas University Medical Center.

Susan Wente, Ph.D., came to Vanderbilt in 2002 to serve as professor and chair of Cell and Developmental Biology. Wente joined the faculty of Vanderbilt from Washington University School of Medicine.

Jeffrey Conn, Ph.D., Lee E. Limbird Professor of Pharmacology and director of the Vanderbilt Program in Drug Discovery, came to Vanderbilt in 2003 from Merck & Co., Inc.

Frank E. Harrell, Ph.D., chair of the Department of Biostatistics, came to Vanderbilt in 2003 from the University of Virginia.

Samuel A. Santoro, M.D., Ph.D., Dorothy B. and Theodore R. Austin Professor of Pathology and chair of the department, came to Vanderbilt in 2003 from Washington University School of Medicine in St. Louis.

Paul Sternberg, Jr., M.D., George W. Hale Jr. Professor of Ophthalmology and Visual Sciences and chair of the department, joined Vanderbilt in 2003 from Emory University.

Naji N. Abumrad, M.D., John L. Sawyers Professor of Surgery and chair of the department since 2004, joined Vanderbilt in 2002 as the director of Surgical Services at the Tennessee Valley Health System.

Mary M. Zutter, M.D., professor of Pathology and Cancer Biology and the director of the Division of Hematopathology, joined Vanderbilt in 2003 from the University of Washington and Fred Hutchinson Cancer Research Center in Seattle.

Joe B. Putnam, Jr., M.D., professor of Thoracic Surgery and chair of the department, joined Vanderbilt in 2004 from the University of Texas M.D. Anderson Cancer Center in Houston.

Judy L. Aschner, M.D., professor of Pediatrics and director of the Division of Neonatology, came to Vanderbilt in 2004 from Wake Forest University

School of Medicine in Winston-Salem, N.C.

Michael Aschner, Ph.D., Gray E.B. Stahlman Professor of Neuroscience and professor of Pediatrics and Pharmacology, joined Vanderbilt in 2004.

John G. Byrne, M.D., William S. Stoney Jr. Professor of Cardiac Surgery and chair of the department, joined Vanderbilt in 2004 from Brigham and Women's Hospital and Harvard Medical School.

Daniel R. Masys, M.D., professor of Biomedical Informatics and chair of the department, came to Vanderbilt in 2005 from the University of California, San Diego School of Medicine.

Sten H. Vermund, M.D., Ph.D., Amos Christie Professor of Global Health, and director of the Institute for Global Health, joined Vanderbilt in 2005 from the University of Alabama, Birmingham.

Stephan H.W. Heckers, M.D., Ph.D., James G. Blakemore Professor of Psychiatry and chair of the department, came to Vanderbilt in 2006 from Harvard Medical School.

Greg R. Mundy, M.D., John A. Oates Professor of Medicine and Pharmacology, joined Vanderbilt in 2006 from University of Texas Health Science Center, San Antonio.

Douglas B. Sawyer, M.D., Ph.D., joined Vanderbilt in 2006 as the Betty and Jack Bailey Associate Professor of Cardiology. In 2008 he was named chief of the Division of Cardiovascular

Medicine in the Department of Medicine as the Lisa R. Jacobson Associate Professor of Medicine. He was at Boston University Medical Center prior to joining Vanderbilt.

Roger D. Cone, Ph.D., professor of Molecular Physiology and Biophysics and chair of the department, joined Vanderbilt in 2008 from the Center for the Study of Weight Regulation at Oregon Health and Sciences University.

Jonathan D. Gitlin, M.D., James C. Overall Professor of Pediatrics and chair of the department, came to Vanderbilt in 2008 from Washington University School of Medicine.

Roland D. Eavey, M.D., chair of the Department of Otolaryngology and director of the Bill Wilkerson Center for Otolaryngology and Hearing and Speech Sciences, came to Vanderbilt in 2009 from Harvard.

Samuel J. McKenna, D.D.S., M.D., F.A.C.S., chair of the Department of Oral and Maxillofacial Surgery, has been practicing, teaching and conducting research at Vanderbilt since 1985.

Dennis Hallahan, M.D., came to VUMC in 1998 from the University of Chicago to serve as chair of the Department of Radiation Oncology. He recently accepted the chair of the Department of Radiation Oncology position at Washington University in St. Louis.

- JESSICA PASLEY

transform VUMC into the “No. 1 health system” in Middle Tennessee.

VUMC employed several strategies to achieve the goal. It forged strategic partnerships with physician groups in Williamson County, established the multi-specialty Vanderbilt Medical Group, expanded key service lines like cancer and heart disease, raised the bar on philanthropy (a move that made possible the establishment of a freestanding children’s hospital), improved both the system’s financial performance and its focus on customer service, and launched branding and advertising campaigns.

It wasn’t just about competition for patients and health care dollars. Jacobson – and those who subscribed to his vision – realized that a thriving clinical operation was essential to growing the Medical Center’s research enterprise, and to attracting top-notch faculty and students.

“We owe a lot of our ability to grow as a research enterprise ... to the growth of the hospital and the clinics,” Marnett said. “It has been the engine that has driven it.”

Growing the clinical operation was one of the prongs of Jacobson’s strategy. Another was the use of venture capital to encourage development and commercialization of intellectual property.

In 1999, Jacobson helped establish the \$10 million “Chancellor’s Fund,” which, in conjunction with the university’s technology transfer office, helped launch 18 companies. A later version, the Academic Venture Capital Fund, nurtured cross-institutional projects including the institutes of Chemical Biology and Imaging Science.

While commercialization in the academic world can raise concerns about conflicts of interest, that wasn’t a problem for Jacobson, say those who know him well.

“He is one of the most ethical individuals you’ll ever come across,” said Thomas Cigarran, chairman of the Nashville-based disease management company, Healthways Inc., who has worked with Jacobson on the Nashville Health Care Council.

“Was he pushing the university to innovate more?” Cigarran continued.

(left to right) U.S. Rep. Jim Cooper, Martha Ingram, Jim Shmerling, Monroe Carell Jr., and Harry Jacobson lead the ribbon cutting ceremony at the opening of the Monroe Carell Jr. Children’s Hospital at Vanderbilt in December 2003.



“Absolutely. But it was never a real conflict of interest.”

Entrepreneur is not the only label one can apply to Jacobson. Visionary is another.

Jacobson believes that health care reform can be achieved by a “bottom-up” approach, driven by academic medical centers.

“There are other alternative approaches to addressing the health care problems in this country than endlessly pushing reimbursement cuts,” he told federal officials in 1999.

“The technology required to improve the quality and cost efficiency of health care in this country is available. It’s called clinical judgment, evidence-based practice, disease management and disease prevention.”

Biomedical informatics has been both an academic discipline and an integral part of VUMC’s clinical operations since the early 1990s. In a sense, the entire Medical Center has been a laboratory, a demonstration project for the power and potential of health information technology to improve health outcomes that has attracted national, and even international, attention.

“When the president flies to Nashville just to inspect that kind of

computer system (as George W. Bush did in 2004), you know that it has influence beyond Vanderbilt,” Cigarran said.

Although Jacobson handed over the reins of the Medical Center to Medical School dean Jeff Balser, M.D., Ph.D., in June, he said he will find other ways to contribute.

“I love health care. I love science. I love the business world. And I think the blend of science, health care and business to really improve the lives of people is a lot of fun,” he said. “I’ll continue to do it.”

Nevertheless, Jacobson’s retirement, announced March 30 in the midst of the most severe economic crisis since the Great Depression, has caused dismay and consternation in some quarters of the Medical Center.

Marnett, for one, isn’t worried about the transition. Balser is “a very smart guy” with “a huge amount of energy,” he said. “He’s going to do really well.”

Stead, too, is optimistic. “Even in this environment it is within our reach to execute on where Harry got us,” he said, “in terms of high performance, in terms of impact, in terms of caring ...

“But we will really have to be good.” **VM**

1997
Harry Jacobson, M.D.



2001
Frances Williams Preston Building



2002
U.S. News and World Report

2003
Monroe Carell Jr. Children's Hospital at Vanderbilt



1997
Harry Jacobson, M.D., is named vice chancellor for Health Affairs. Jacobson says his goals are to generate financial success to reinvest in academic medicine and health care and to launch a long-range academic plan to make Vanderbilt a leading provider in the region.

Vanderbilt University Board of Trust approves a proposal calling for planning and design of a new, freestanding Vanderbilt Children's Hospital.

The Vanderbilt Page-Campbell Heart Institute opens atop the South Garage.

1998
Ingram family donates \$300 million to VU, the largest gift in its history, to support programs in teaching, biomedical research and education, public service and athletics.

The Junior League of Nashville pledges \$2 million for new children's hospital.

Monroe Carell Jr., named chair of the Campaign for Children's Hospital.

Vanderbilt hosts its first American Heart Association Heart Walk, beginning a decade-long tradition.

Jacobson holds his first State of the Medical Center Address.

President Bill Clinton and Vice President Al Gore host Family-

Centered Care Conference at Vanderbilt.

The School of Nursing's Patricia Champion Frist Hall opens.

1999
Meharry Medical College and VUMC establish a formal alliance to enhance the educational, scientific and clinical programs at and between both institutions.

The Ingram family pledges \$56 million to the Vanderbilt Cancer Center; Orrin Ingram announces he will lead the campaign to nearly double that amount.

Vanderbilt-Ingram Cancer Center (VICC) is designated an NCI Comprehensive Cancer Center.

Ann and Monroe Carell Jr. announce a gift of \$20 million to help build the new children's hospital, launching the formal fundraising campaign to raise \$50 million.

A new Division of Genetic Medicine and the new Structural Biology Program are created.

VUMC launches Fetal Surgery study – MOMS Trial.

2000
John Chapman, M.D., VUSM dean from 1975-2001, announces his retirement.

VICC becomes one of only a handful of institutions in the country to be awarded more than one SPORE grant from the National Cancer Institute.

LifeFlight Skyport opens at Vanderbilt Hospital.

25th Avenue parking garage opens – the largest in the state – and free parking is offered to patients and families.

School of Medicine celebrates 125th anniversary.

Steven Gabbe, M.D., appointed Dean of the School of Medicine.

2001
Vanderbilt announces the planned creation of the Vanderbilt Comprehensive Diabetes Care Center.

The Vanderbilt Brain Institute is officially launched. "Vanderbilt has committed its highest level of support to discovery in neuroscience," Jacobson said in his welcoming remarks.

Board of Trust approves Phase II of the Monroe Carell Jr. Children's Hospital, allowing for construction of an 11-story outpatient clinic. The \$20 million outpatient clinic will be built parallel to the new children's hospital.

Vanderbilt University becomes the first academic institution to partner with Celera Genomics for access to the company's vast library of genomic data.

First triple organ transplant is performed.

The first major addition to Medical Center North since 1972, the centralized vivarium, a \$30 million facility, is completed.

The Frances Williams Preston building, housing the Vanderbilt-Ingram Cancer Center, is dedicated.

2002
Vanderbilt is awarded a \$12.6 million National Institutes of Health (NIH) contract to conduct clinical trials and test new vaccines, including a smallpox vaccine.

Vanderbilt University Hospital earns a place on the "honor roll" of the nation's best hospitals in rankings by *U.S. News and World Report* for the first time in the 13-year history of the magazine's annual survey.

VICC increases the goal for the campaign to Imagine a World Without Cancer to \$175 million, with aggressive fundraising to continue for at least a year.

Vanderbilt Medical Group, supported by the Informatics Center, undertakes initiative to improve quality and efficiency by using computers in place of paper-based clinical processes.

The Leapfrog Group commends VUH for key patient safety measures.

2006
Magnet bound



2007
Vision 2020

2008
Medical Research Building IV



2009
One Hundred Oaks



MyHealthAtVanderbilt.org is launched to give patients password-protected access to their scheduling and account information.

Medical Research Building III, an addition onto the Learned Lab section of Medical Center North, is completed and houses 64 research laboratories, four teaching laboratories, and an 8,650-square-foot greenhouse.

2003
The Monroe Carell Jr. Children's Hospital at Vanderbilt, the single largest construction project undertaken by the Medical Center, is completed.

VICC is the 10th-ranked cancer center in the country, according to *U.S. News and World Report*. The cancer ranking is a 16-place leap from the previous year.

The Thomson Institute for Scientific Information ranks Vanderbilt in the top five in clinical medicine and pharmacology.

Women exceed men for first time in Medical School's history – 60 members of the 104-member class are women.

The NIH releases a ranking of schools of nursing awarded research funding by the medical research center, placing the Vanderbilt University School of Nursing at 14.

2004
Leaders launch the 'elevate' program, aimed at renewing and

sharpening the commitment to service and operational excellence.

The Medical Center East South Tower, including the Bill Wilkerson Center for Otolaryngology and Communication Sciences, the Orthopaedic Institute, the Eskind Diabetes Center and the Vanderbilt Heart and Vascular Institute, is completed.

2005
Creation of the Vanderbilt Center for Stem Cell Biology (VCSCB)

VUMC announces plans to build an anonymous DNA database of genetic and clinical information.

2006
VUMC is designated as a Magnet hospital by the American Nurses Credentialing Center.

State officials approve construction of a third bed tower to the main hospital. The \$234 million, 11-story tower is to be built atop Vanderbilt University Hospital's Emergency Department, and adds a net of 141 additional acute-care beds as well as several new operating suites. Construction of the third bed tower is expected to be done in phases, with completion targeted for 2012.

SCCOR grant - A team of VUMC researchers will receive \$16 million for the next five years to study why patients with diabetes and insulin resistance have a tendency to develop blood clots.

The Institute of Imaging Science is added to the southwest corner of Medical Center North, containing one of the world's most powerful magnetic resonance imaging (MRI) scanners.

The School of Nursing unveils its newly renovated Godchaux Hall

2007
Vanderbilt University receives a \$40 million Clinical and Translational Science Award (CTSA) — its largest single government research grant — to expedite the translation of laboratory discoveries to patients in the community.

On the strength of its DNA Databank Resource, VUMC is selected to participate in and coordinate a national network that will pursue the ideal of personalized medicine.

Building on the success of a 10-year strategic plan set for VUMC, Jacobson formalizes a new focus for the medical campus and its employees: Vision 2020.

For the first time, Vanderbilt's schools of Medicine and Nursing both rank among the top 20 in the country, according to *U.S. News and World Report's* annual ranking of "America's Best Graduate Schools."

2008
The School of Medicine ranks No. 10 among U.S. medical schools for NIH funding in fiscal year 2007.

VUMC bans smoking by staff, patients, visitors and contract employees on campus.

VUMC signs an agreement to be the new health care and emergency medical services provider for the Nashville Predators, Nashville's National Hockey League team.

Three generations of the family of the late Monroe Carell Jr. pledge a gift of \$20 million to the fundraising effort for a new facility to care for children and mothers.

Medical Research Building IV is completed and Langford Auditorium is renovated.

The Vanderbilt Eye Institute opens.

2009
For the first time, Vanderbilt is named one of the top 100 best places to work in the United States in *Fortune* magazine's annual survey and is the first educational institution to be named to the list.

VUMC opens a second campus at One Hundred Oaks, with 440,000 square feet of renovated space. The \$99 million project gives a face-lift to the aging mall and becomes the work home to 750 Medical Center staff and faculty.

The new 102-bed Critical Care Tower rises above Medical Center Way.



JEFF BALSER, M.D./PH.D., '90

Vice Chancellor for Health Affairs and Dean of the Vanderbilt University School of Medicine

Vanderbilt's Jeff Balsler, M.D., Ph.D., incoming vice chancellor for Health Affairs and dean of the School of Medicine, is an accomplished clinician and researcher. At 47, Balsler is the youngest person ever to lead the Medical Center. He spent the past decade preparing for the role, working closely as an apprentice to Harry Jacobson, M.D., who retired as vice chancellor in June. Jacobson hand-selected Balsler as his successor and, as a mentor, has placed Balsler in a series of roles with ever-increasing responsibility.

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WRITTEN BY **LYNNE HUTCHISON**
PHOTOGRAPH BY **JOE HOWELL**

You recently became the new vice chancellor for Health Affairs. Has it sunk in yet? I think it will take a little longer. It's not that I haven't been thinking about what this might be like because it has been discussed. The succession plan was something that Harry and I had worked on together for years. But, that said, when it actually happens the feelings, emotions are not something you can anticipate, how it will really feel.

As Dean and Vice Chancellor, how do you see the accomplishments of the past shaping your vision for the future of the Medical Center? I want to see Vanderbilt do more things recognized around the world as groundbreaking contributions. We've risen to where we have the potential to accomplish what few other medical schools can, and it is our time to lead. From the most fundamental basic science to personalized medicine, from therapeutic discovery to public health and health care, we are and will continue to make contributions that are one of a kind, and could not be accomplished anywhere but here. Our DNA databank is one example, but there are many others.

This is our time. Many of us experience that unforgettable moment in professional maturation soon after finishing our education or training. As trainees, we become accustomed to having a senior person behind us, catching our mistakes. Suddenly you finish your training and encounter that difficult research problem or challenging patient – and

look up and realize it is up to you! It can be a bit scary, but becomes immensely satisfying when we draw on years of training and succeed. Vanderbilt needs to take that posture. We've come so far and have what we need – vast resources, tremendous experience and a wonderful culture. No other institution is better prepared to tackle the problems of biomedical science and health care than us. Future generations are depending on us.

As an M.D./Ph.D. student at Vanderbilt School of Medicine, did you ever think you would be dean some day? There were times as a student where I interacted with [then Dean] John Chapman and thought what he did would be tremendously exciting. I couldn't imagine one day I'd get to do the job. It crossed my mind, but I didn't set out to become a dean. Like most people, my career goals evolved over time.

You attended VUSM on a scholarship. How did that shape your life? Having a fully funded M.D./Ph.D. scholarship to Vanderbilt in many ways made my career. It allowed me to invest the time to learn the fundamentals of discovery science early in my career. I wasn't burdened with substantial debt after my medical training, so I was able to spend more time engaging in postdoctoral research training while raising a family. The scholarship made everything possible. It's a key reason I'm so passionate about trying to raise more



JEFF BALSER., M.D., PH.D.

money for student scholarships. It's easy to talk about impact that I've personally experienced.

If you had to choose between patient care or research, which would you choose? That's like asking me to choose my favorite child! I've derived tremendous satisfaction from keeping one foot in both activities, particularly when one influences the other. The latest research drove my thinking about patients I was caring for in the ICU, and my arrhythmia research was driven by what I experienced in managing patients with heart disease. Now, in an administrative role, I'm committed to shepherding our programs to assure that "all boats rise" [patient care and research]. Academic medicine is a special place where the whole can be greater than the sum of the parts. Our educational programs must rest on that combined foundation.

What do you love about research? Two things: the challenge of the unsolvable puzzle and the explosive impact that a single "aha!" can produce. There are few human activities where finding the answer to a question can have such dramatic impact. So much of what we experience is iterative progress – one foot in front of the other. But with research there's potential for nonlinear impact from even a single discovery. It's the intellectual parallel to the Olympic gold medal. With

research you can always have that spark of insight that changes that game.

How do you see the role of research for VUSM? Over time we've seen federal priorities for basic discovery and clinical/translational research shift back and forth. Regardless of where the federal emphasis may be, our goal must be to strike the right balance. A healthy biomedical research enterprise has to be strong in both arenas. Doing one to the exclusion of the other is like investing one's retirement portfolio in a single stock, or a company investing in a single product. We've been particularly good at this diversification at Vanderbilt, as the clinical and basic science departments have a history of connectivity. This kind of interconnectedness remains a strong feature of our culture and distinguishes us.

What are your goals for student education? We need to do everything possible to get the cost of medical education under better control. I'm working aggressively toward enhancing scholarship support and finding ways students can finish medical education at Vanderbilt with far less debt.



A long-term goal is re-conceptualizing medical education in a way that allows medical students and biomedical scientists to manage the explosion of biomedical information. It's like drinking from a fire hose – our challenge is to find a way to help our students take sips and not get knocked over, while also developing the platforms needed to integrate information throughout one's career.

One of the benefits of having phenomenal health care information technology and the world's best biomedical informatics is that we're uniquely positioned – not just to respond to these challenges, but to lead. A key challenge will be utilizing enhanced information resources, while at the same time nurturing our connection to the patient.



DANA JOHNSON



JOE HOWELL

Left: Jeff Balser as associate professor of Anesthesiology and Pharmacology in 2001; Right: As Dean, he introduces the M.D. candidates at graduation.

Top: Balser in his 1990 VUSM class composite photo.

Family Man

Balsler at home with son Jimmy; daughter Maddie, petting Emme the golden retriever; wife Melinda, holding Otto; and daughter Jillian.

What’s your top reason why potential students should come to VUSM? When you look at different medical schools in the top 20, the test scores and other numbers don’t look very different. So why come to Vanderbilt? A huge reason is the atmosphere. With a straight face I can tell any graduating college senior that they will be happier here than anywhere else. Legions of dedicated people over generations have been committed to building our culture. My job is to choose leaders who will continue to nurture that atmosphere and ensure it is enriched for the next generation.

You’ve had a fast rise in your career. What’s the secret to your success? I’ve been aggressive with seeking mentoring at every stage of my career. I tend to have multiple mentors and I’ve been fortunate to have phenomenal, unselfish ones. I give tremendous credit to them. I’m an incurable optimist and take the view that anything’s possible. In my family there’s a culture that “you can do things.” The notion that you cannot accomplish something is just not on our radar screen.

Have your first six months as Dean lived up to your expectations? The biggest thing that stands out is that I’m extremely happy. You never know for sure if you’re going to love a job, but I do go home most nights – even when dealing with challenging and sometimes heartrending problems – feeling terrific. I feel at home in the deanship, as if I’ve trained for it my entire career. I come in every morning with a cell phone to my ear and a smile on my face.

What makes you happy? Work-life balance is extremely important. With all its challenges, I love being a parent of



ANNE RAYNER

teenagers. [My wife] Melinda and I are happiest when we have been able to help our kids work through real obstacles. Whether in sports or school or a personal challenge, participating in the full range of those experiences is a big part of the reward of parenting.

Are you encouraging your kids to go into medicine? Gently. My girls are interested in science. My son loves international relations and politics. I’m betting he ends up working for the *New York Times* or the United Nations.

Do you have any unusual hobbies? Who has time for hobbies? There aren’t many medical school deans who have high school age kids, so between my family and my work, hobbies are on the back burner. I run, but not as much as I should. Melinda bought me an elliptical trainer for my birthday. I think she’s trying to tell me something. **vm**

JEFF BALSER RECOMMENDS
+++++++

Best restaurant:
Zola in Nashville

Best book to read on vacation:
“Pillars of the Earth” by Ken Follett. He usually writes spy novels but this is about building the great cathedrals of Europe.

Best vacation:
Italy. The combination of culture and fantastic history and weather and food. It’s all there – I can’t get enough of it.

Best movie:
Saving Private Ryan

+++++++

Member. Steam cleaning services.

Member. Steam cleaning services.

5394



Wanted: Health Care Providers

Candidates must be team players and have a keen interest in prevention, outcomes and informatics.
Application deadline: ASAP

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EXECUTIVE Movers.
\$40/ hour+ 1 hour travel.
2 men and a truck. All
truck sizes. 16, 18, 24, 26

Special!
plus
xpe-
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Com-
terior.
plaster-
Base-
mates

A perfect storm is forming.

The United States population is growing rapidly, increasing by about 25 million people per decade. The nation, including its doctors, is aging. One-third of active physicians are over age 55, which means in the next 10 to 15 years 250,000 of them will retire. Thanks to medical advances, people are living longer with more chronic illness.

Ed Salsberg, M.P.A., director of the Association of American Medical Colleges (AAMC) Center for Workforce Studies, has his eyes on the gathering storm clouds and doesn't like what he sees.



WRITTEN BY **KATHY WHITNEY**
PHOTOGRAPH BY **ISTOCKPHOTO**

THE AAMC ISSUED a report in November 2008 authored by Salsberg and colleague Michael Dill that projects future supply and demand for physicians and concludes that a national shortage is likely. The demand for doctors will outstrip the supply through at least 2025, the report says.

If physician supply and use patterns stay the same, the United States will experience a shortage of 124,000 full-time physicians by 2025, according to the AAMC. Other projections based on continued increase in utilization rates, changes in work schedules with older physicians continuing to work more hours and younger physicians working fewer, a moderate expansion of the graduate medical education (GME) capacity and productivity improvements puts the shortage at 159,000, the authors write in their report.

“Projections are complex, but the simple drivers are pretty clear. The grow-

ing population and aging population will be driving demand up,” Salsberg said. “In addition, most of the medical advances over the last 30-40 years have had the impact of keeping people alive longer and surviving illness. In the end, this actually drives up demand.”

To help offset the shortage, the AAMC recommends a 30 percent national increase in U.S. medical school enrollment between 2002 and 2015.

According to a May 2008 AAMC survey, more than 86 percent of existing schools have already expanded the number of first-year students or plan to do so within the next five years. In addition, nine new medical schools are under development or discussion.

Beginning in fall 2009, Vanderbilt University School of Medicine will increase its enrollment by 6 percent, from 104 to 110 first-year students.

“Based on my discussions with deans and instructors, we should be able to comfortably accommodate 110 students each year. If we wanted to go beyond

that, there would have to be some serious planning,” said John Zic, M.D., Vanderbilt’s associate dean of Admissions.

Much of Vanderbilt’s first- and second-year curriculum is based on small group instruction, and adding just six more students means adding another group and another instructor to the mix.

“Even when we increase it by just 6 percent we need to let the Liaison Committee on Medical Education know we’re doing that. They want to stay on top of the number of medical students who are matriculating each year and make sure we justify why we’re doing this and we have the resources to do it well,” Zic said. “We would never want to

IF PHYSICIAN supply and use patterns stay the same, the United States will experience a shortage of 124,000 full-time physicians by 2025, according to the AAMC.

have a school increase its enrollment to the point that it jeopardizes its educational mission.”

Medical school administrators need to look at their school’s circumstances, resources, communities, and state demographics before deciding how many additional first-year slots to offer, Salsberg said.

“We expect that states that have grown more rapidly over the last 25 years – a period with no growth in medical education – would be the states more likely to expand, such as southern and western states that have far fewer medical school slots per capita.”

In 2007 VUSM received 5,032 applications, the highest number in a decade. In 2008, it received 4,890 applications – for 104 spots. After five consecutive years of growth, the national pool of applications decreased slightly from around 42,315 to 42,231 in 2008.

But Salsberg and Zic agree that given the current economic recession, medical school applications are likely to be on the rise.

“What we often see when there is an economic downturn, consideration of job stability starts to rise high on the list of reasons people decide to pursue one

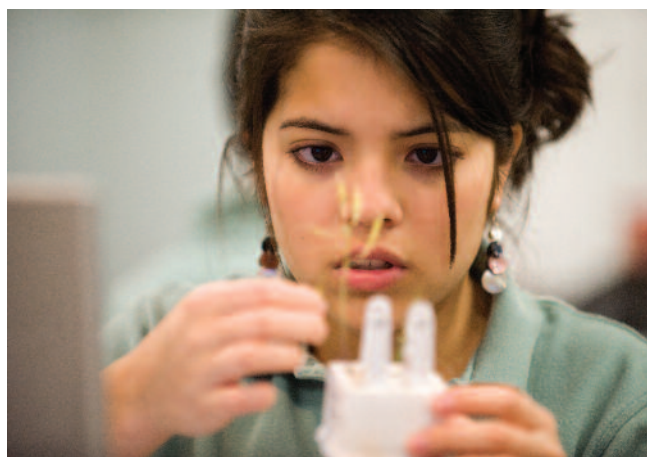


SUSAN URBAY



COURTESY OF AAMC

John Zic, M.D., associate dean of Admissions, left, and the AAMC’s Ed Salsberg, M.P.A., believe medical schools need to examine a number of ways to increase the physician pipeline.



INSPIRING YOUNG MINDS

The search for future physicians is now turning to America's best and brightest high school students. Vanderbilt's School for Science and Math provides opportunities for curious, young minds to learn from scientists who actually do the research that shapes our future. For four consecutive years, high school students are immersed in a university culture where discovery, exploration and cutting-edge advances are part of the daily routine. Here, freshmen, who conducted a semester-long experiment to determine the effect of caffeine on multiple aspects of plant growth, collect data on their experimental plants.

WEB LINK

To view a slideshow of this class and to hear from one of its students about the experience, please visit www.mc.vanderbilt.edu/vanderbiltmedicine.

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Ahbid Zein-Sabatto

●●
Ryan Driscoll

●●●
**(from l to r) Jasmine Kelly,
Instructor Kimberlie McCue
and Shalom Rottman-Yang**

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Laura Moribe

career over another. Medicine starts to be more interesting to young people. It wouldn't surprise me if over the next three years we see an increase in the number of applicants to medical school," Zic said.

Medical school isn't the only part of the physician pipeline under scrutiny. Graduate medical education (GME) programs should consider expanding their residency slots in order to continue to train foreign-educated physicians, Salsberg said.

About 25 percent of all physicians entering training in the United States are graduates of foreign medical schools. Since U.S. medical schools will be graduating more physicians, residency programs will need to expand and train more physicians, otherwise U.S. M.D.s (and graduates from osteopathic schools) may squeeze out physicians in training who attended medical schools outside of the United States, and there will be no increase in the supply of physicians.

"We've recommended an increase in

residency training positions to accommodate the growth in U.S. M.D. graduates. The issues around GME are complex. Each teaching hospital makes its decisions about what programs to offer. There has been some growth over the last few years. We don't know if residency positions are going to continue to increase or not," Salsberg said.

Physicians who have been educated in other countries cannot practice medicine in the United States without completing a residency. In order for graduates of foreign

medical schools to get into U.S. residencies, they have to pass an additional exam.

“An accomplished surgeon who has been practicing in another country – who could certainly help and impact the health care of Americans – can’t practice medicine here without going through an entire residency again. That’s an enormous burden. Some think it’s worth it depending on conditions in their home country,” Zic said.

The search for future physicians is now turning to America’s best and brightest students – while they are still in elementary and middle school.

“The pipeline for increasing our physician pool goes all the way back to grade school,” Zic said. “We need to expose young people to the joys and challenges of the health care field – getting young people turned on to science – letting these young people think that becoming a physician is a real possibility for them.”

The AAMC recognizes this and is in a position to encourage medical schools to increase pipeline programs, particularly for underrepresented minority groups. Vanderbilt already offers the School for Science and Math for high school students and is looking at offering additional programs.

“We are looking at ways to establish more well-organized connections with colleges that educate underrepresented students. Currently, high school students can come to Vanderbilt during the summer to make them more competitive medical school applicants. We are having discussions now to see how we can expand those programs,” Zic said.

The AAMC realizes that increasing the pipeline alone will not be sufficient to meet future patient needs and demand.

Jeff Balser, M.D., Ph.D., vice chancellor for Health Affairs and dean of VUSM, agrees.

“There is no way we could possibly educate enough physicians to manage the growth of the population and its need for health care,” Balser said. “Vanderbilt could double the size of its medical class, every medical school in the country could do the same, and we’d still fall short of

••• OUTCOMES-BASED EDUCATION •••

In addition to increasing its class sizes to some degree, Vanderbilt is more focused on improving the quality and outcomes related to the educational experience. To this end, Bonnie Miller, M.D., has been appointed senior associate dean for Health Sciences Education. Miller has been charged with ensuring that all of Vanderbilt’s clinical education programs are directed toward the ultimate goal of improving the health and well-being of patients and populations.

In her new position, Miller, who is also the associate dean for Undergraduate Medical Education, will work broadly with every level of medical education, beginning with the admissions process, the medical school program, residency and fellowship programs, and continuing medical education. She will also work with programs for pre-medical students aimed at enhancing the preparation of a broadly diverse group of potential applicants.

Miller says she will be looking for the “holy grail” of educational outcomes research: evidence linking a particular educational program with improved patient outcomes. She said that won’t be easy, but with Vanderbilt’s informatics capabilities and medical education expertise, the school is uniquely positioned to meet this challenge.

“Medical education, in a large way, has been disconnected from the health care needs. We’ve really focused on rescue salvage mentality and not enough on public health mentality,” she said. “There has been a lot written on the challenge of bringing public health back into medical education with a focus on prevention and secondary prevention. We will be training our students across the board with that mentality.”

Miller said that ideally Vanderbilt wants its students to toggle back and forth between treating a patient and treating a population.

“Students need to be able to understand resource distribution but also how they take medical evidence based on clinical trials of thousands of patients and apply it to the one patient in front of them,” Miller said. “Ultimately, they will aggregate their one-patient experiences and know for sure they are doing a good job with their population of patients.” – KATHY WHITNEY AND CAROLE BARTOO

the number of providers needed to meet the nation’s needs in our existing health care model.”

According to Balser, increasing the supply of physicians will not be sufficient. Complex changes such as improving efficiency through technology, re-engineering the health care team, and improving prevention efforts will also be necessary.

“We must come to terms with how we will deploy physicians more efficiently and effectively, and work in teams with other health care providers.”

Can the United States make major strides in overhauling the health care delivery system in time to offset the impending physician shortage? Or is

adding capacity the answer? There are strong feelings on both sides of the debate, but most agree the answer lies somewhere in between.

“I think the case for increasing undergraduate medical education is very strong,” Salsberg said. “If America did things differently, we think we could reduce the need for physicians. We’re certainly hopeful the nation will find ways to improve efficiency and effectiveness, but it takes us 10 years to produce a physician. What we’re doing today in 2009 is making decisions about how many doctors we produce in 2019.” **VM**

The Road Not Taken



BY CAROLINE KNOX, M.D., MD '09

W

hen people asked me what sort of doctor I wanted to become, I answered by listing the various subpopulations I had an interest in working with: geriatrics, palliative care, adolescent medicine and women's health. As I became more familiar with the health concerns of adults with chronic diseases, I thought I might go into internal medicine or pediatrics. Looking back now, it's easy to recognize that all of those groups add up to the patient panel of a family physician, but since I knew very little about it, family medicine was not even on my radar.

As a volunteer at the Vanderbilt student-run Shade Tree Family Clinic, I learned first-hand about the dire need for primary care in an urban, underserved area. This experience was very important for my personal path to a career choice.

I had helped cared for an elderly, frail patient who was having trouble controlling her diabetes, despite being on an ideal regimen. I had met her entire family. I knew she had great-grandchildren living with her, but I had never thought about what their home was like. As "one of our most loyal" Shade Tree Clinic patients, she had won the Thanksgiving basket and we planned to deliver it to her home. After five minutes of waiting outside her apartment, our arms laden with groceries, we started to worry. This patient was such a frail woman, I wondered how she had enough strength to get down these stairs and around the corner to our clinic each month. Finally, a granddaughter came to the door with a toddler in her arms. Our patient was just behind her, beaming like I had never seen before. Inside the kitchen, there was hardly any room to stand, much less set down groceries. The room was dark and musty with mold and stale cigarettes. It was five days before Thanksgiving, and there was barely any food in the house. I offered to put the turkey in the refrigerator, and a grandson opened it to reveal rows of empty shelves and a single jar of mayonnaise. The expectations we had for our patient in the clinic did not take these circumstances into account. This patient's "difficult case" had been



JOE HOWELL

demystified in a way that hundreds of dollars of laboratory tests never could.

Then, during my fourth year, I spent a month with family physicians working for Indian Health Services on the Navajo reservation. At that point I knew primary care family medicine was where I could find both personal and professional fulfillment.

Many of my classmates entered medical school already attracted to a particular subspecialty. With so many talented specialists on campus to foster those interests, I can see why many of my peers are still gearing their careers toward a specialty.

Primary care appeals to me for many reasons. I want to emphasize disease prevention and health maintenance before illnesses spiral out of control. I see the health of the individual inseparable from the health of their relationships and social and physical environments, and I want to consider my patients' health within these contexts. I want to be a part of a community and develop meaningful relationships with families spanning generations. Maintaining health is complicated for every individual, and I want to provide a "home base" for my patients.

Note: Caroline attended Vanderbilt University School of Medicine on a Dean's Scholarship. She is pursuing her family medicine residency at a community hospital in western Colorado. VM

WEB LINK

To view Caroline reading her essay, visit our Web site at www.mc.vanderbilt.edu/vanderbiltmedicine.



CUTLER

building a better team

In his commencement address on May 8, Jeff Balsler, M.D., Ph.D., vice chancellor for Health Affairs and dean of Vanderbilt University School of Medicine, told graduates he was counting on them to shape the future of medicine, and that their success will depend on their ability to be part of a team.

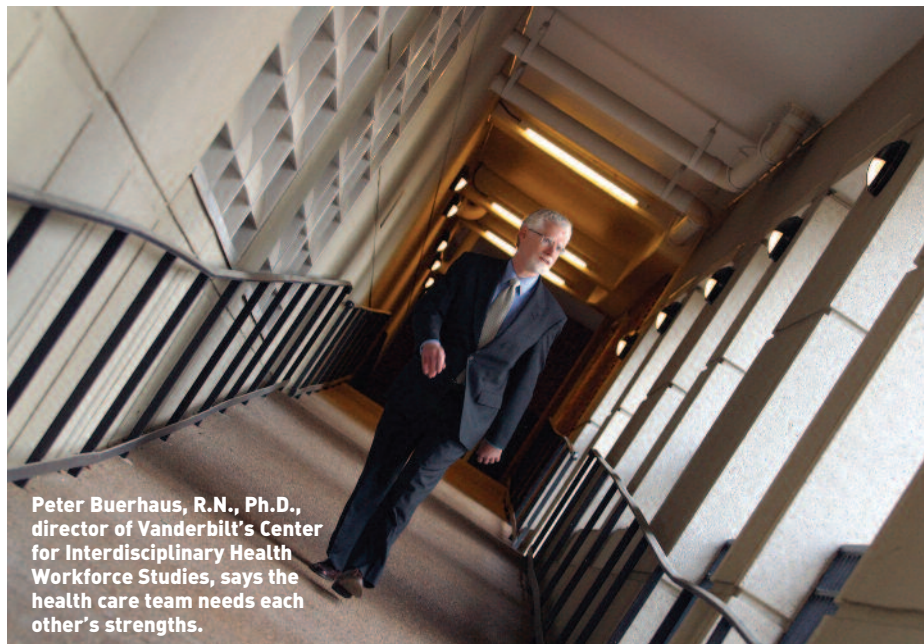
“Your degree does not earn it and being the most superior competitor won’t earn it. The raw horsepower of your brain matter won’t earn it. Humility will earn it,” Balsler said. “Being a member of the team is something you have to earn every day.”

Never before has the concept of team building been as important in health care as it is **now**.

WRITTEN BY **CAROLE BARTOO**
ILLUSTRATION BY **DAVE CUTLER**

“More and more primary care doctors are having serious thoughts about leaving the profession,”

said Peter Buerhaus, R.N., Ph.D., director of Vanderbilt’s Center for Interdisciplinary Health Workforce Studies. “It’s like a volcano, we’ve seen the cracks and rumblings and small earthquakes that come before the explosion.”



Peter Buerhaus, R.N., Ph.D., director of Vanderbilt’s Center for Interdisciplinary Health Workforce Studies, says the health care team needs each other’s strengths.

Buerhaus and others at Vanderbilt are saying it is time to restructure the health care team, to open up the definition of a health care provider and to create teamwork with less focus on stratified roles and levels of power.

The Institute of Medicine Committee on the Future of Primary Care defines primary care using the term “clinician” rather than “physician,” signaling a shift toward using mid-level providers, such as advanced nurse practi-

tioners and physician assistants, to fill the gap left by primary care physicians.

Leaders at both Vanderbilt’s School of Nursing and School of Medicine are working together to establish mutual respect for broader roles. Linda Norman, D.S.N., R.N., senior associate dean of the Vanderbilt School of Nursing, says battles over turf and scope of practice have diminished already.

“We have been approached by colleagues throughout the Medical Center to see how advanced practice nurses can be part of the practice model. They know there will not be enough oncologists, nephrologists and other physicians,” Norman said. “As access decreases, costs will increase. If you build a practice

model that includes advanced practice nurses, it will be more cost effective.”

It may take some getting used to, but patients are accepting the widening role of nurse practitioners.

“I heard two older ladies chatting. One was telling the other she needed to come to see Ken Watford at the Vanderbilt Ear, Nose and Throat (ENT) practice. She used the term ‘doctor’ by mistake, although I am sure she was aware that Ken is an advanced nurse prac-

itioner,” Norman said. “The point is that the title was less important to this patient, in this case, than the quality of the care she received.”

“That happens all the time,” Watford said about the misuse of his title. “I fought that battle a long time ago, but I gave up. I tell people they can call me Ken.”

Watford, who was the first nurse practitioner hired into any Vanderbilt surgical sub-specialty nine years ago, sees patients at the ENT clinic in Medical Center East. He received his master’s degree in family practice nursing at Vanderbilt, and then was hired by former chair of Otolaryngology, Robert Ossoff, M.D.

“We had some debates about these emerging models,” recalls Ossoff. “I had this vision that we needed a primary care person to be our gatekeeper. We went to the residents but could not convince them to do this. They thought they might not get any of the good surgical cases, so I decided I wanted a nurse practitioner.”

The physicians in ENT developed an intense program to train Watford as a medical otolaryngologist. He performs minor procedures, makes assessments, provides diagnoses and writes prescriptions. Watford’s skills, and those of other nurse practitioners, have allowed physicians to spend more time meeting the surgical needs of their patients.

In the Department of Obstetrics and Gynecology (Ob/Gyn), midwifery and advanced practice have gone well beyond helping physicians see more patients. In 2006, the Division of Midwifery and Advanced Practice (MWAP) became the first Vanderbilt division completely comprised of non-physicians.

“I think we are in the forefront in the nation. Our nurse midwives and our nurse practitioners are faculty members in the School of Medicine. They work side-by-side with our physician faculty in providing normal obstetric care. They teach our residents and medical students,” said Howard Jones, M.D., chair of the Department of Ob/Gyn. “I will tell you honestly it hasn’t been without bumps in the road, but it is a worthwhile model.”

Despite the bumps along the way, MWAP director, Deborah Wage, M.S.N., said the Department of Ob/Gyn is paving the way for a new model of teamwork.

“We are multidisciplinary, and all of us need to start acting as such. We are learning to appreciate we cannot have silos,” Wage said.

The numbers and varieties of mid-level providers are growing rapidly and include physician assistants like Whitney Reynolds, PA-C.

Reynolds has a Master of Science degree in Physician Assistant Studies and specialty training in cardiology. Her job is to extend the reach of the physicians by performing many of the clinical tasks needed to keep the busy Electrophysiology Lab running efficiently.

“I offer continuity so patients see one person who ties all the specialists together,” Reynolds said. “The scope of what I do is determined by the physicians I work for.”

The ever changing picture of the health care team now resembles a full, branching tree so it makes sense that the place to promote change is at the root of health care training: universities and medical schools.

“One hundred years from now, we might not have schools of medicine and schools of nursing,” Wage speculated.

Bonnie Miller, M.D., senior associate dean for Health Sciences Education at the Vanderbilt School of Medicine, agrees.

“Maybe the system is antiquated, and it is time to tear the whole thing down. A new model would not look at your title; it would look at your training. I think we have to be in the business of challenging assumptions. We won’t be able to meet the needs of the population without teamwork and thinking about who is best suited for the tasks at hand.”

It may not be possible to level the educational playing field just yet, but Miller figures she can at least introduce the players to one another. One of Miller’s successes is a new chronic care course in which family nurse practitioner (F.N.P.) students are paired with medical

students to care for chronically ill patients for a year or longer.

First-year M.D./Ph.D., student Rafal Sobota partners with F.N.P. student Lisa Bolton. When asked about being paired with a “mid-level provider” Sobota said he didn’t like the use of stratified terms.

“I don’t understand that. It isn’t one is the boss over the other; we just have different training and different roles,” Sobota said. “I plan to go into global health. Around the world most of the health care is delivered by nurses. I will be working very closely with them.”

Sobota knows that few classmates in medical school are headed for primary care. “Most of my classmates are very ambitious; they want the knowledge to become the expert, to sub specialize.”

Bolton says building a new foundation for teamwork within higher education is a good idea. “In general, college students are idealistic and very well prepared to work together. The holistic model of nursing education prepares students so well for working collaboratively.”

Buerhaus soberly reminds us that time is limited to decide where to spend the ever-shrinking resources in knitting together a health care net for 80 million baby boomers who are aging every day.

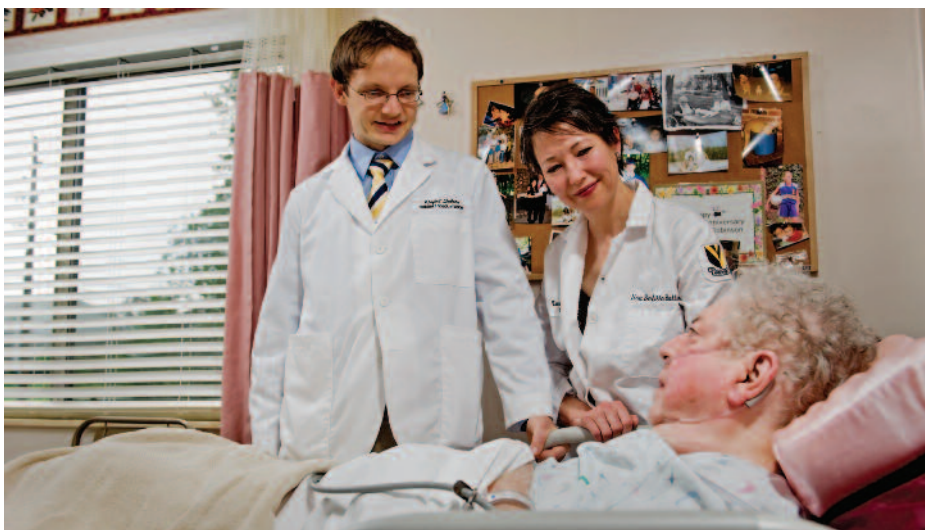


DEAN DIXON

Linda Norman, D.S.N., R.N., senior associate dean of the Vanderbilt School of Nursing, encourages the inclusion of advanced practice nurses in the practice model.

“There is no clear consensus about the physician shortage. Meanwhile, we have not done a good job of employing federal or other funds to address the shortage of R.N.s,” Buerhaus said. “We will all need each other’s strengths if we are to respond to the need.” **VM**

Medical student Rafal Sobota, left, and nursing student Lisa Bolton were partners in the yearlong Chronic Care course. Here they check on patient Hildra Robinson.



JOE HOWELL





an ounce of prevention

WRITTEN BY LESLIE HAST
PHOTOGRAPHY BY D. SHARON PRUITT PINK SHERBET PHOTOGRAPHY

An apple a day keeps the doctor away – or does it?

According to the Centers for Disease Control and Prevention statistics, chronic diseases such as heart disease, cancer and diabetes are the leading causes of death and disability in the United States, accounting for 70 percent of all deaths – or 1.7 million each year. The good news is chronic diseases, the most common and expensive health problems, are largely preventable. Physicians will play a key role in attaining widespread effective prevention, which, for now, remains far in the future.

Shari Barkin, M.D., Marian Wright Edelman Professor of Pediatrics and chief of the Division of General Pediatrics, emphasizes the pressing need for prevention when considering pediatric obesity.

“If we’re effective at prevention,” she said, “we can change the frightening statistic that one in three children born in the year 2000 will have diabetes. We can change the frightening prediction that this generation of children will die before their parents. This is a time when we are the most technologically advanced, but we might reverse our life expectancy, completely counter to our notion of evolving as a species. If we continue to have obesity at the rates we do now, we won’t have a workforce that is healthy to maintain our economy. We won’t have a workforce that is healthy to participate in the military to defend our nation. People won’t be able to pass the test.”

As in Fat, an obesity report from the Robert Wood Johnson Foundation, found that “if we keep on the current course, 75 percent of Americans will be overweight or obese by 2015.” The document ranks Tennessee No. 6 on its list of states with the highest obesity rates.

With obesity, the adage holds true: an ounce of prevention really is worth a pound of cure.

“Once someone is overweight, even if they can’t achieve their ideal weight, just a modest amount of weight loss does decrease the risk of a number of diseases. It does make a huge difference to stay at a manageable weight,” said Joan Randall, M.P.H., administrative director of the Vanderbilt Comprehensive Obesity Research Program.

“It took a long time for us to become this bad, and it will take a long time to turn it around,” Randall said.

The Physician’s Role

“It’s critical that primary care doesn’t disappear. Maybe decades down the line there won’t be such a need for it, but for the next several decades there will be, and even a larger role, for the primary care folks to help get a handle on this. I think primary care physicians have a huge role to play because people listen to them,” Randall said.

According to a 2008 Association for American Medical Colleges (AAMC) Center for Workforce Study, there will be a greater shortage in primary care than in any other specialty. “In fact, the projected shortage in primary care accounts for more than a third of the total projected shortage in 2025 (37 percent of the overall physician shortage, or about 46,000 full-time equivalent primary-care doctors),” the study indicates.

Barkin said the pediatrician’s office is also a primary player in prevention.

“We have this great window of opportunity to bring up to the surface a level of awareness about how important parents are in their children’s health. We do have that opportunity to promote children’s health with information, with skills building,” she said. “We don’t in one large leap change anybody’s mind with information. It’s over time working in partnership together, demonstrating results in improved health that you change things.”

The Teaching Kitchen is a skills building program sponsored by the Nashville Collaborative, of which Barkin is executive director, and is a partnership between Nashville Metro Parks & Recreation and the Monroe Carell Jr.

Juan Carlos Mondragon, holding his daughter, Leah, and his wife, Suyapa Flores, with daughter, Shayla, watch as Chef Majid “Magic” Noori prepares a healthy snack. The family participated in a Nashville Collaborative program to build skills and increase healthy lifestyles while decreasing pediatric obesity.



JOB HOWELL

David Meltzer, M.D., Ph.D., warns that prevention on a broad scale won't come cheaply.



Children's Hospital at Vanderbilt. While a physician can say children should eat healthy foods, the Teaching Kitchen actually shows parents how to prepare the foods and make them affordable.

While Barkin and Randall see the importance of primary care fighting on the front lines for prevention, Carlos L. Artega, M.D., sees an increasing need for specialization.

Artega, professor of Medicine and Cancer Biology and director of the Vanderbilt-Ingram Cancer Center Breast Cancer Program, said the history of medicine shows that physicians become increasingly specialized, and more specialization means better care.

A recent study—conducted for the American Society of Clinical Oncology (ASCO) by the AAMC's Center for Workforce Studies—found that “demand for oncology services is expected to rise 48 percent between 2005 and 2020. During the same period, the supply of oncologist services is expected to grow only by 14 percent, translating to a shortage of between 2,550 and 4,080 oncologists.”

“Keep in mind that we have not seen a decline in cancer rates. We're seeing a prolongation of survival of patients with all kinds of cancer,” Artega said.

Many studies are under way in cancer prevention, but even with the best prevention strategies cancer is inevitable in the long run because of DNA aging, Artega said.

“You've got to die of something. We can't stop DNA turnover and aging; something has got to eventually go wrong,” he said. “Cancer is probably inevitable. It's part of the process of aging. We're going to live longer, and there will always be cancer that we will have to treat. Sometimes we'll cure it, but other times we'll turn it into a chronic disease. Somebody who is trained in cancer care, perhaps not a general practitioner, will have to take care of these folks.”

A Collaborative Approach

Whether specialized or focused on primary care, everyone can agree that the burden of prevention lies with more than just physicians.

“A medical sector is very important and necessary, but not sufficient,” Barkin said. “We have to include schools, food and beverage companies, the media and policymakers. Health is not in the hands of only physicians. Health is in the hands of you and me, of parents, of grandparents, schoolteachers, basketball coaches. This is a group effort.”

Randall is involved in the Tennessee Obesity Taskforce, which unites leaders from health care, the government, universities and the non-profit sector. It is charged with developing a viable state plan for obesity.

“The issue around these plans is that many of them are very, very good, but they have not included implementation or evaluation strategies. The goal is to develop a plan that's not only great on paper but will make a difference because we have identified resources or organizations that have agreed to be accountable for making certain that very basic things, such as healthy food in the schools, are achieved, and, of course, then measured,” she said.

One of the biggest challenges in obesity prevention right now, Randall said, is the lack of evidence that programs are effective and sustainable.

“We only have promising practices that hopefully will work,” she said. “We don't know, for example, if putting P.E. back in schools will make a difference. When I grew up, of course we had P.E. all the time and we moved around at recess, but we didn't eat out for meals 40 percent of the time either, which the average American is doing now. So even if we get kids moving again, we don't know what the impact will be because we don't have data on that. There isn't evidence that it's going to work. Because of this lack of evidence, policymakers are reluctant to fund many of the policies that are being proposed.”

The Economics of Prevention

Prevention requires resources – both personnel and financial – and prevention on a broad scale won't come cheaply, says David Meltzer, M.D., Ph.D., a leading health care economist at the University of Chicago.

“There are very few forms of real prevention that save money. Most prevention ends up costing money,” Meltzer said.

Those costs include the direct cost of the treatment along with costs incurred later because the patient lives longer.

If prevention is thought of as an investment, the way an investment is measured is its stream of returns, and most prevention efforts do not yield immediate returns.

“Sometimes you can see in short trials that if you've had a heart attack, lowering

Shari Barkin, M.D., says that pediatricians play a key role in prevention.





JOE HOWELL

“It is easier to build strong children than to repair broken men.”

your cholesterol can make you healthier quite soon, but for many of these things, you’re preventing complications that are way in the future,” he said.

Meltzer has studied the stream of returns on intensive diabetes therapy and found that the average duration from the time a patient starts therapy to the time they actually see a lot of the benefits can be measured in decades.

“In the presidential election,” Meltzer said, “there was a period where a number of the candidates were very fond of talking about how prevention was going to save money and be the cure to our health care system’s problems. No way, not realistic. It’s not a realistic solution to controlling health care costs, but is it an important part of the health care system? Absolutely. Prevention is often a great form of health care, but it is not a form of cost containment.”

In the end, Meltzer, along with Barkin, Randall and Artega, insist that the true value of prevention is not in investment returns, saving resources or solving the physician shortage. It is in creating a healthy person who can make a significant contribution in life.

“Whatever the cost, it is going to be outweighed by the productivity of the individual,” Artega said. “That person is going to be able to raise a family, start a company, create new knowledge and capital, run a business, etc.”

Barkin often uses this observation of Frederick Douglass’: “It is easier to build strong children than to repair broken men.”

“If you look at where our spending is,” she said, “it is on a latter end, when health has gone wrong and disease has set in. We benefit the patient, the family and society by focusing on prevention.” **VM**

Ayers Institute Focuses on Colon Cancer Prevention

Jim and Janet Ayers are very matter of fact about the purpose of the Jim Ayers Institute for Pre-Cancer Detection and Diagnosis.

Saving lives. Period.

Ayers gave Vanderbilt-Ingram Cancer Center (VICC) \$10 million to launch a research entity to develop a test for cancer at its earliest and most curable stage. He decided on colorectal cancer, which kills about 55,000 people a year in the United States. It is the second leading cause of cancer deaths in the country.

"I was not specifically looking for a project involving colon cancer," Ayers said. "I knew I wanted to be involved with something that I would live long enough to see come to fruition. We would actually be able to see the research we sponsored save human lives.

"One of the things that made colon cancer suitable for our goals is the fact that it is very curable, if detected early. The reason it's not detected early is because people are avoiding the colonoscopy."

Ayers knew something had to be done and collaborated with VICC, a leader in the area of proteomics. Proteomics is the study of all proteins in a cell, tissue or organism that are responsible for human health and disease. The research taking place at the Ayers Institute has focused on identifying biomarkers in blood and tissue in order to develop techniques to detect cancer at the earliest stage, as well as determine targeted therapies for treatment.

Although colonoscopy is the standard detection method for colorectal cancer, the invasive testing is often avoided, resulting in undetected cases. Ayers' goal of detecting colorectal cancer at an earlier stage and with a more attractive test is proceeding on schedule. The five-year plan is expected to meet its objective of prototype biomarker panel by 2010.

"We did the most risky part," said Ayers. "Our investment was the seed money. We are now seeing the light at the end of the tunnel and moving into the final phase of the project and that feels good.

"I'm pretty optimistic that we are going to get where we want to go."

Ayers said his gift is a venture that will potentially impact hundreds of thousands of people and have significant implications on a variety of diseases.

"It's a platform," Janet Ayers said. "This project is more than just about colon cancer. What researchers are doing here can hopefully be applied to other modalities as well, particularly brain and lung cancer. It can be the beginning, just the start."

Ayers, chairman of FirstBank in Lexington, Tenn., has a

medical background. He sold pharmaceuticals soon after graduating from the University of Memphis. Later, he worked in the nursing home industry. For nearly 40 years he owned American Health Centers, a nursing home business with locations throughout the United States. He is also the chairman of the board of Community Care, an outpatient surgery center company headquartered in Nashville.

Although deeply rooted in the medical industry, it wasn't until the West Tennessean befriended Orrin Ingram, chairman and CEO of Ingram Industries and chairman of the VICC Board of Overseers, that he knew he wanted to be a part of such a project.

"Orrin spent at least two years helping me find a project to support," said Ayers. "Actually, it seems that he mentioned a couple of potential prospects before we settled on colorectal cancer. It was largely because of Orrin that we are here at Vanderbilt."

Ayers and his wife know that this initial investment will be responsible for saving "some children from losing their mothers or fathers" who will have a longer lease on life because of the technology being developed through the Ayers Institute.

But the pair is quick to make something very clear – they are only part of the equation.

"The \$10 million is not an investment unless you have a very gifted team of researchers and physicians," the pair said. "It's the whole group that makes this vision a reality. We are just one piece of it.

"Everybody brings their talents and gifts around the table with the common goal of making life better and saving lives. The real message is that whatever gift you have to give, give it."

— JESSICA PASLEY





plugged
in

Using Information
Technology to Do More
with Less

WRITTEN BY PAUL GOVERN
ILLUSTRATION BY ISTOCK/DIANA DUREN

By adopting new strategies, the health system could find its way to delivering twice the health at half the cost, predicts Bill Stead, M.D., Vanderbilt University Medical Center's associate vice chancellor for Strategy and Transformation and director of the Vanderbilt Informatics Center.

Stead has evidence to back up this claim.

In 2007, clinical teams working in Vanderbilt University Hospital's six adult intensive care units adopted practice standards for prevention of ventilator-associated pneumonia, or VAP. Over an ensuing 10-month period, they reduced their combined VAP rate by 41 percent. That reduction represented 13 fewer deaths in those 10 months, and cost savings of between \$1.9 million and \$3.5 million.

Everyone involved with the VAP initiative points to two decisive elements in its success: consensus among clinicians about standardizing practice, and clinical information technology that allowed teams to self-monitor performance and correct deficiencies before they occurred.

Projects like the VAP initiative encourage those who think the health

system can change to accomplish more without additional resources.

To begin, Stead wants to target diabetes; he says it's reasonable to expect that a region like Middle Tennessee could within 10 years decrease its incidence of diabetes by 25 percent, reduce diabetic comorbid conditions by 30 percent and slash total costs for diabetes by 50 percent.

Stead is enlisting the participation of colleagues across Vanderbilt.

"These targets are bold but they're not crazy," he said. "We're looking at some things that truly will change the game."

Two years ago, the VUMC leadership team began to engage the Vanderbilt community in an ongoing discussion about strengthening the impact of academic medicine. They foresee Vanderbilt engaging more directly with the world outside the Medical Center. They call this Vision 2020. As Stead goes around engaging people in this discussion, he brings along some uncomfortable facts from the medical literature. For example, the United States has one of the highest rates of amenable mortality in the developed world; early mortality is more associated with our behavior than with genetic variation; in the United States, higher health care spending is frequently associated with poorer outcomes; clinicians very often ignore the most well founded of treatment recommendations.

"Vision 2020 is a different way of thinking, where you start by measuring the gap between what is possible and what is currently done, then you figure out how to close the gap," Stead said.

For Stead, the big opportunity lies in identifying populations at risk, calculating cost savings to be gained by lowering that risk, and developing new forms of targeted health promotion.

Vanderbilt is a powerhouse of clinical information technology development, and many of the IT solutions that could help support work toward Vision 2020 — and, not incidentally, could help avert the foreseen physician shortage — are in use at VUMC and at partner institutions.

Dashboards

At Vanderbilt University Hospital, clinical orders and patient care documentation figure as keystrokes entered in fields within electronic records — entered by doctors, nurses and others in the course of work. From this database, programmers for the VAP initiative channeled information relevant to ventilator care standards into a single screen for each adult ICU. On clinical workstations in these units,

in terms of general prevention, geriatric care or diabetes care. Outpatient dashboards are in development for heart disease, congestive heart failure, pregnancy, hypertension and glaucoma.

Electronic patient registries

In 2008, the rate of current colorectal cancer screening among Vanderbilt health plan members seen by Vanderbilt Primary Care physicians increased from 40 percent to 76 percent; current mammograms increased from 46 percent to 78 percent; and pneumonia vaccination increased from 47 percent to 86 percent.

Patient registries were key to these improvement efforts. StarPanel, the electronic medical record and clinic workflow

and contact clinicians and patients to initiate any needed tests or preventive treatment. Communication is aided by a patient letter generator embedded in StarPanel, and by secure messaging both in StarPanel and in Vanderbilt's patient Web portal, My Health at Vanderbilt.

While dashboards apply to all payers and all patients, the registries and work lists involve payer participation; the current participants include BlueCross, HealthSpring and the Vanderbilt employee health plan.

The center will soon expand beyond Primary Care to serve patients seen by Gastroenterology, Pediatrics, Women's Health and Cardiology.

My Health at Vanderbilt

When nurses want to prompt a patient with diabetes to undergo testing, they often use My Health at Vanderbilt as their first method of contact.

Approximately 1,800 patients per day log on to myhealthatvanderbilt.com. Sheer convenience may explain why Vanderbilt's innovative patient Web portal continues to attract users. It offers a single, secure Web site where patients can review lab results, radiological reports and other parts of their medical record, communicate electronically with their doctor and health team, make an appointment, pay their clinic or hospital bills and find useful information about managing their chronic condition and guarding their general health.

"My Health already greatly benefits clinic efficiency, and it has great potential as a tool for engaging patients in self-care and management of chronic disease," said Jirjis.

Regional health information exchange

In Memphis last October, the Midsouth eHealth Alliance registered its 1 millionth patient. No one flung confetti, but the occasion did represent a growing opportunity in that city to improve health care and lessen the waste of resources.

The Alliance (www.midsoutheha.org) is a trailblazing health information

"Vision 2020 is a different way of thinking, where you start by measuring the gap between what is possible and what is currently done, then you figure out how to close the gap."



the screen saver is now a grid in which rows representing patients intersect columns representing ventilator care standards. This screen, or dashboard, gives teams their performance status with just a glance: a green cell within the grid means the patient is current for that particular standard; a yellow cell means action is needed soon; a red cell means action is overdue.

With the dashboard and with periodic reports showing performance patterns, ICU compliance with the ventilator standards went from 27 percent in November 2007 to 90 percent by March 2008.

Vanderbilt clinicians also use dashboards during the patient visit in the clinic. Based on previous diagnoses, test results and other documentation in the electronic record, dashboards tell clinicians at a glance what the patient may need today

application developed at Vanderbilt, helps nurses at Vanderbilt's Center for Health Promotion and Disease Management maintain patient registries for diabetes, coronary artery disease, congestive heart failure and chronic obstructive pulmonary disease.

The center also maintains registries of patients needing general preventive measures such as colonoscopy and breast exams.

"We use our dashboards during encounters to help us identify gaps in care, but we are also continually using registries to look at our population as a whole, then we work hard to bring patients in when they are due for key prevention and primary care quality targets," said Jim Jirjis, M.D., M.B.A., chief medical information officer for outpatient clinics.

At the center, seven nurses focus exclusively on work lists generated by the registries. They analyze patient records

exchange project supported by Memphis health care providers, the U.S. Agency for Healthcare Research and Quality, the state of Tennessee and Vanderbilt. The project was conceived and launched by Stead and Tennessee Gov. Phil Bredesen.

The participating providers include hospitals, safety net clinics and one large medical group (University of Tennessee). As they gather patients' consent to treat, providers offer patients an opportunity to opt out of regional data sharing; as providers create electronic medical records, they securely transmit a copy to a regional data bank, unless the patient has opted out. The system, now in use in safety net clinics and 14 emergency rooms in greater Memphis, retrieves records instantly and presents them to clinician-users in a consistent, useful format.

With more than 1 million patients now in the system, for each new visit it's overwhelmingly probable that some amount of clinical information about the patient is available for lookup in the clinic and ER. Records may include clinical notes, discharge information, lab results and other information.

Mark Frisse, M.D., M.B.A., professor of Biomedical Informatics, leads Vanderbilt's contribution to the Alliance. He sees portable electronic medical records as helping a fragmented U.S. health system to begin to coalesce around the needs of individual patients.

"A revolution is inevitable, the horse is out of the barn. Within a decade people all around the country will have portable electronic medical records. It's similar to the arrival of the Internet; at some point we realized that these technologies irreversibly and positively changed our lives," Frisse said.

Vigilance

Anesthesiologists supervise anesthesia for two to four patients at a time, while also evaluating patients before surgery and seeing to patients' needs in the recovery room after surgery.

In 2004, to aid OR safety and efficiency, a team at Vanderbilt introduced a



JIM LIO SCALZO

program that shows anesthesiologists what is happening in each of the rooms they're covering.

It's called Vigilance. Anesthesiologists access the program via small portable computers that can fit in a back pocket. The program integrates live video images from the operating room, information from the anesthesia machine and heart monitor, and information from the patient record as it's updated by the OR team on in-room workstations. Vigilance sends an alert when it spots a risk for injury.

"Seconds can count," said James M. Berry, M.D., professor of Anesthesiology. "This technology extends our senses so we can virtually be with each patient we're following."

Over the past few years, use of Vigilance has begun to spread to ICUs at Vanderbilt.

My-Medi-Health

My-Medi-Health seeks to eliminate the kinks that hinder communication between children, parents and school officials regarding children taking their medications on time and effectively.

"We want to empower kids to be more involved and dismiss the myth that

Vanderbilt anesthesiologists can simultaneously monitor the action in four ORs. They can also pull up each patient's vital signs, electronic medical record, and real-time anesthesia data.

medication management is not a child's world," said Kevin Johnson, M.D., vice chair of Biomedical Informatics and project leader for My-Medi-Health.

In Johnson's pilot program, young cystic fibrosis patients were given a pager that reminded them to take medications, and alerted parents and school officials if a dose was missed. Twenty children between the ages of 5 and 10 were enrolled in the four-month study, and 85 percent of families considered the program successful and wanted to continue.

Encouraged by that result, the team is now developing a portable Web-based personal health record to aid medication administration. The program supports collaboration of the prescribing clinician, the child, the parents and school officials. It features dosage alerts and links to medication warnings. The plan is to integrate the program with pagers and cell phones. **VM**

Editor's note: Staff writer Bill Snyder spent a week in Mozambique last November covering the efforts of a Vanderbilt-owned subsidiary, Friends in Global Health, to extend HIV/AIDS treatment – and hope – throughout the country's rugged and disease-ravaged central province.

From Health to Hope

WRITTEN BY **BILL SNYDER**
PHOTOGRAPHY BY **MANSIR PETRIE**



(1)

1. Carlos Manuel rode his bicycle more than six miles to get medication for his wife from the clinic in Namacurra, a remote village in central Mozambique. 2. Patients wait their turn outside the portable clinic building in Namacurra.

Legendary country singer-songwriter Don Williams croons from an MP3 player as the Land Rover careens down a dirt road around potholes and pedestrians to a health clinic in this rugged central province of Mozambique.

“Clássico!” exclaims driver Carlos Rui Lourenço about Williams, who is immensely popular throughout sub-Saharan Africa.

The intertwining of two cultures – one emerging from centuries of Portuguese rule and a devastating civil war; the other Western, modern, dominant – seems surreal at times. But it’s more cohesion than collision, and it provides a glimpse of what the world will look like ... soon.

At the center of this story is an eclectic band of health and development professionals assembled by the Vanderbilt University Institute for Global Health.

With \$8.4 million in annual support from the President’s Emergency Plan for AIDS Relief (PEPFAR), their immediate goal is to help extend HIV/AIDS treatment throughout the province, where nearly one in five people is infected with HIV.

But that’s just the beginning.

Zambézia is ground zero for an audacious plan to tackle a gamut of interconnected problems, from extreme poverty and rampant malnutrition to often-fatal diseases spread by contaminated water and mosquitoes, which have cut average life expectancy here to 41 years.

“There are a lot of other things that need to happen in a setting like this to improve people’s ability to care for themselves better,” says Alfredo Vergara, Ph.D., the institute’s deputy director who has worked in Mozambique for eight years. “Otherwise it seems like we’re plowing in the ocean.”

The core of the program is a Vanderbilt-owned subsidiary, Friends in Global Health, which began working with the Mozambiquan Ministry of Health two years ago.

Based in the provincial capital Quelimane (pronounced Kelly-MAWN-ee), FGH serves 12 of the province’s 17 districts, employs 150 people, and – alongside other partners – has helped quadruple to more than 11,000 the number of Zambézians receiving treatment with anti-retroviral therapy (ART).

While impressive, that’s little more than 10 percent of the estimated number of people with HIV/AIDS who are eligible for treatment, says Troy Moon, M.D., M.P.H., the agency’s clinical director and an assistant professor of Pediatrics at Vanderbilt.

The challenges, at times, seem insurmountable.

Zambézia is a largely rural province, about the size of Tennessee. Most of its 4 million inhabitants are subsistence farmers who earn the equivalent of less than a dollar a day.

In villages of mud-walled, thatch-roofed huts, men repair gearless bicycles, their primary means of transportation, while young children lug plastic drums of water from wells or nearby rivers. In the fields, women tie babies to their backs with colorful scarves before hurling broad-bladed hoes high over their heads to break up the hard black soil for the rice crop.

On this day of an historic American election half a world away, Moon and his team have driven 50 miles to Namacurra to find dozens of people crowded around portable clinic buildings in the sweltering heat of early sub-equatorial summer, waiting to be seen.

Moon examines a baby with chronic diarrhea who endured a five-hour-long bicycle ride with her mother from their remote village to get the clinic. The child, like her mother, has tested positive for HIV. Yet because of their extremely limited circumstances, “we may not get her or her mom into treatment,” the doctor sighs.

A few steps away in Namacurra’s district hospital, a young man, emaciated from AIDS, lies in a metal-framed bed, his eyes wide with desperation. The doors and windows of the ward are wide open; the air conditioning doesn’t work.

He needs a blood transfusion, “but you have to find a donor. There is no blood bank here,” says family nurse practitioner Stacey Lamers, M.S.N. “He’s afraid he’s going to die.”



(2)



(3)



(4)



(5)



(6)

Little by little, progress is being made.

The Namacurra hospital, recently renovated by other donors, had no electricity or running water until FGH arranged for minor repairs and the actual connections to be made.

Eric Manders, Ph.D., Riley Ganz and their colleagues are developing an electronic medical records system. In the remote Ile (pronounced EE-lay) district, “we could go to a paperless chart before we get running water,” says Pamela Ganz, a physician assistant and the district’s clinical adviser (who is married to Riley).

FGH also is helping train desperately needed health care personnel. In much of Zambézia, there is only one doctor for every 120,000 to 250,000 people. Medical care is provided largely by nurses and técnicos de medicina (medical technicians), who have two years of training post high school. With an aver-

age caseload that exceeds 50 patients a day, they also are overwhelmed.

Young, bearded, always in motion, Moon seems to thrive on the challenges and frustrations that confront him each day.

“If you support one more nurse to go through school, if you supply one computer to the provincial hospital, or if you buy a fax machine so somebody in Alto Molócuè (pronounced mol-O-qway) can fax a medical requisition and avoid a six-hour drive to deliver it,” he explains, “there are a lot of small things you can do ... to give them the tools so they can do it.”

And while thousands of HIV-positive Zambézians do not yet have access to the drugs that can keep their infections at bay, Vanderbilt researchers have shown that basic primary health care – including treatment of co-infections like tuberculosis and malaria – can slow progression of the disease by up to two years.



(7)

“Furthermore, you substantially reduce their infectiousness,” says Sten Vermund, M.D., Ph.D., the charismatic physician-scientist who directs Vanderbilt’s Institute for Global Health.

On Nov. 6, 2008, Moon and his team drive 250 miles to Alto Molócuè with a load of boots, bleach and laboratory supplies to help health officials rein in an outbreak of cholera, a highly contagious bacterial infection that can be quickly fatal.

Two days after the first cases were reported in late October, a makeshift field hospital – tents over plastic ground cloths to catch and disinfect the watery diarrhea – had been erected. The cholera victims lie helplessly on wooden cots, while a sterile solution drips into their veins to replace the fluid they’ve lost.

That’s the only treatment. But despite such rudimentary conditions, all 69 survive.

Addressing the source of the outbreak, fecal contamination of the river that is the town’s major water supply, will have to wait. Yet that doesn’t dampen the sense of relief and accomplishment.

Later in the day, provincial health director Amindo Tonela, M.D., embraces Moon in a victory hug. It’s a gesture that validates the FGH approach, engaging and partnering with local communities; helping them devise sustainable ways of addressing urgent health challenges.

The approach needs to be much bigger than public health, argues Vergara, an epidemiologist who directed the Centers for Disease Control and Prevention’s AIDS program in Mozambique for six years before joining the Vanderbilt faculty.

“We’re talking about education ... nutrition ... transportation ... all of those things,” he says. “If we are not in some way trying to address them, what we can do for something as focused as keeping people on ART for a long time really falls short.”

Toward that end, Vergara last fall led a team of Vanderbilt experts to Mozambique to brainstorm what he calls “wrap-around” programs.

They included Carol Etherington, M.S.N., R.N., assistant professor of Nursing; Ted Fischer, Ph.D., professor of Anthropology; Graham Reside, M.Div., Ph.D., executive director

of the interdisciplinary Cal Turner Program for Moral Leadership in the Professions; and Bart Victor, Ph.D., the Cal Turner Professor of Moral Leadership in the Owen Graduate School of Management.

One idea from the trip is now being pursued by Fischer and students from the Owen School. They’d like to establish a “Plumpy’nut” factory in Alto Molócuè that would employ people with HIV/AIDS.

“Plumpy’nut” is a high-protein, peanut-based food made by a French company that has dramatically reduced malnutrition rates throughout Africa. Since area farmers grow the same raw ingredients, why not produce a homegrown version of the product?

“Development is really the creation of freedoms,” Victor points out, “capabilities to make the choices and execute on the choices that one would want for oneself.”

Victor says he was inspired by Vergara and Vermund – “not just by their vision, but by their abilities to execute on that vision.”

Vanderbilt, through FGH, is positioned to lead “what is arguably the most significant trend in global public health today, which is this interdisciplinary approach,” he says, and to be led.

“We have as much to learn in this country as we have to teach,” says Etherington, who is known internationally for her expertise in crisis response.

As long as FGH exhibits humility and a willingness to listen, traits important in any culture, “I don’t think we’ll have any problem,” adds Paulo Pires, M.D., the agency’s provincial clinical coordinator. “The people, they are willing to improve, to study, to change.”

Perhaps a woman working at a Quelimane gas station said it best, the morning after the son of a Kenyan man was elected president of the United States:

“We are all Africans now.” **VM**

WEB LINK

To view a slideshow about Troy Moon’s work with Friends in Global Health, please visit www.mc.vanderbilt.edu/vanderbiltmedicine.

Opposite page:

3. Troy Moon, M.D., M.P.H., (right) discusses the cholera outbreak in Alto Molócuè with provincial health director Armindo Tonela, M.D., (in baseball cap) and Moisés Luis Agostinho Domingos, director of the Provincial Health Directorate’s Nursing Department. 4. Medical records are stored in cardboard boxes in the Alto Molócuè clinic. 5. A mother and infant wait for the doctor in an examining room at the Namacurra clinic. 6. Laboratory agent Miguel Alberto Zimba prepares a blood sample in Namacurra.

This page:

7. Troy Moon, M.D., M.P.H., and nurse Maria Ricardina Bernardo Cavallo examine a baby held by her mother in the Namacurra clinic.

PRESIDENT'S LETTER

With this issue of *Vanderbilt Medicine Magazine*, we are pleased to introduce a new design for the Canby Robinson Society section as well as a new section: Web Links. On page 47 you will find "teasers" for two additional stories located on our Web site www.mc.vanderbilt.edu/crs. We would appreciate any feedback that you might have.

We have been very busy at the CRS this spring. CRS membership is growing with 2,500 members. The Coalition for the Canby Robinson Society has many dedicated volunteers who are recruiting new members and increasing support to all areas of the Medical Center.

The CRS co-hosted two regional dinners with Medical Alumni Affairs earlier this year in Birmingham, Ala., in January, and in Chattanooga, Tenn., in February. We are planning some additional dinners

for the fall. We hosted our fifth annual dinner for the prospective CRS scholars during the Medical School's Second Look Weekend. The following day the prospective scholars shadowed one of our current scholars. These two opportunities have proved to be effective in recruiting these very talented and highly sought after students. Attendance at our Second Look dinner this year was greater than ever before. Match Day, the day our fourth-year medical students learn where they will be doing their residency programs, was held in March (please see page 46 for where our graduating scholars will be this year). The CRS Board of Directors met in April at the new Vanderbilt Health at One Hundred Oaks, and the meeting agenda included a tour of the new clinic space. We hosted several outreach tours this spring, which are referenced in this section and on our Web site.

I would like to take this opportunity to let you know that Missy Eason, executive director of CRS for 11 years, has decided to step down from her position at the Medical Center. On behalf of the board, I thank Missy for her leadership, which has been the guiding force behind our growth and success over the past decade. We owe a debt of gratitude to Missy for her years of service and commitment to CRS, and we wish her well in her future endeavors.



Kitty Murfree
President

NELSON C. ANDREWS, CIVIC LEADER AND CRS FOUNDER, DIES



Nelson C. Andrews, widely regarded as one of Nashville's greatest philanthropists, humanitarians and civic leaders, died June 13 of leukemia. He was 82.

Mr. Andrews, a 1949 Vanderbilt graduate, helped found Vanderbilt Children's Hospital nearly four decades ago and was the founder and first president of the Canby Robinson Society.

An active member of the Medical Center's board in 1979, Mr. Andrews was asked by Vice Chancellor Vernon Wilson to help form the first Vanderbilt donor society. The two agreed about two things: a donor society was needed, but it wouldn't be easy getting one started.

"At that time, there was a real gulf between the Vanderbilt community and the rest of the community," Mr. Andrews recalled in a 2003 *Vanderbilt Medicine* article.

So a steering committee was formed to solicit members, mostly Vanderbilt and community physicians. "We called it an ambassadorship, a friendship," Mr. Andrews said.

Thanks in part to the foundation that Mr. Andrews helped build, the Canby Robinson Society now includes 2,500 members.

Mr. Andrews served on the Medical Center Board as well as on the Vanderbilt Board of Trust since 1979. He was elected trustee emeritus in 2003. In 2007, he was honored with the Joe Kraft Humanitarian Award, presented by the Community Foundation of Middle Tennessee for exceptional community service and philanthropy.

He also was the founding president and chairman of many boards and organizations in Nashville, including the Monroe Carell Jr. Children's Hospital at Vanderbilt, Leadership Nashville, the Better Business Bureau of Nashville/Middle Tennessee, the Davidson County group of the Tennessee Health Care Network and the Girl Scouts Men's Advisory Board, among many others.

"It is rare to find a person who exerts such a profound influence on his community, on its history and maybe, most importantly, on its culture," said Jeff Balsler, M.D., Ph.D., vice chancellor for Health Affairs. "There may be no one more responsible for the greatness of this city than Nelson Andrews and those of us at Vanderbilt who benefit from his contribution to our academic community will be forever grateful."

Mr. Andrews is survived by his wife, Sue, whom he met at Vanderbilt, children Susan, Nelson Carter, Judith, Adam, and Frank, and 21 grandchildren.

TURNING PERSONAL EXPERIENCE INTO PHILANTHROPY

Ann and Bob Coleman are surrounded by family and friends from the Vanderbilt University Medical Center community. The occasion is a celebration at the Vanderbilt Eye Institute to announce the appointment of Sean Donahue, M.D., Ph.D., a pediatric ophthalmologist, to the Sam and Darthea Coleman Chair in Ophthalmology. The chair was endowed by Bob's parents, Sam and Darthea Coleman.

"Both my parents lived well into their 90s and had severe eye problems as they got older," Bob said. "My father had glaucoma and my mother had macular degeneration. They spent a lot of time at the Vanderbilt Eye Clinic. When they were planning their estate, they wanted to do something for the Ophthalmology department."

Both Ann and Bob are Vanderbilt alumni. After college and marriage, Bob, an engineer and an only child, went to work with his father, and he continues the work of the family real estate development firm today. Ann began her lifelong commitment to volunteer work.

"I was honored to serve on the first board of directors for Friends of Children's Hospital," she said. "In fact, I continued my involvement for many years. It was a wonderful surprise to me that Sam wanted to include them in the endowment."

Over the last several months, the Colemans have enjoyed getting to know Donahue, chief of Ophthalmology at the Monroe Carell Jr. Children's Hospital at Vanderbilt, and a professor of Ophthalmology and Visual Sciences, Pediatrics and Neurology.

When Donahue came to Vanderbilt in 1995, he was instrumental in the creation of the Tennessee Lions Eye Center, which opened in October 1997. He has



"We are pleased that Dr. Donahue is activating the Coleman chair. Ann and I are really impressed with his work. I'm sure that he and the Eye Institute have a bright future."

BOB COLEMAN

helped grow the Pediatric Ophthalmology service from about 1,000 to 10,000 patients a year since 1995.

"We are pleased that Dr. Donahue is activating the Coleman chair," Bob said. "Ann and I are really impressed with his work. I'm sure that he and the Eye Institute have a bright future."

"There are four milestones in the life of an academic physician: being offered

that first job, being awarded tenure, achieving the rank of full professor, and, finally, receiving an endowed chair. I am so thankful to the Colemans for their generosity, and also to this fine institution, where, for me, all four of those milestones have happened," Donahue said.

- MEREDITH CARR

TAKING A BREAK: CRS SCHOLARS TAKE TIME TO EXPLORE CAREER INTERESTS

Canby Robinson Scholars, Natalie Jacobowski and Emily Kendall, are expanding their overall educational experience by taking a break between their third and fourth years of medical school to pursue areas of interest that will shape their careers in medicine.

Kendall developed an interest in global infectious disease issues while taking courses in biology and public health at Harvard University in pursuit of a bachelor's degree in chemistry and physics. It was this global health interest that led her to medical school at Vanderbilt.

She is currently in Dhaka, Bangladesh, conducting research at the International Centre for Diarrhoeal Disease Research. She is participating in the Fogarty International Clinical Research Scholars program, which is sponsored by the National Institutes of Health and administered by Vanderbilt.

Kendall is studying the immune response to cholera, with the aim of understanding the protective aspects of the immunologic memory that develop after natural infection, and designing a more effective cholera vaccine.

"This year has been invaluable in so many ways," she said. "Every week I meet people who are doing fascinating work in fields that interest me. I have learned a good deal of immunology and am developing a variety of useful research skills."

After graduating from Vanderbilt, she plans to pursue an academic medical career with research applications and collaborations in the developing world.

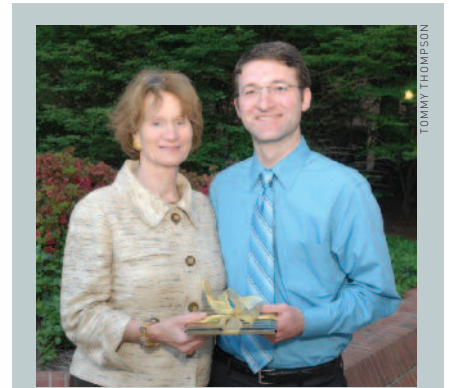
"Experiencing first-hand the unique challenges of both research and clinical medicine in this resource-poor setting has been instructive and will be important to understand in my future work," she said.

Jacobowski entered medical school with an interest in pediatric oncology, but later became intrigued by child neurology during her neurology rotation. She plans to use these and other interest areas to become a clinician-educator after graduating from Vanderbilt.

During this past year, she has been engaged in a medical education fellowship, in which she serves as an Emphasis adviser for a group of 10 first-year medical students, teaches in small group organ recitals, lectures in the second-year pathology component of the Disease Diagnosis and Therapeutics course, and develops tutorial videos for the neuroscience component of the Brain and Behavior course.

She is also performing research on palliative care and end-of-life education at the medical student level, conducting a national survey of academic deans and fourth-year students. She participates in committees and other aspects of the administrative side of education, serving as co-chair of the Student Curriculum Committee and attending undergraduate medical education meetings and workshops.

"We are fortunate to be taught by outstanding professors and after the significant impact some of them have had on me and my personal and professional development, I want to be able to do the same for others," she said.



IDEAL PHYSICIAN AWARD

Kitty Murfree, CRS president, presents Bryan Harris, M.D., MD '09, with the Ideal Physician Award. Harris was selected by his fourth-year classmates as the person they most would like to have as their personal physician. Harris will stay at Vanderbilt for his residency.

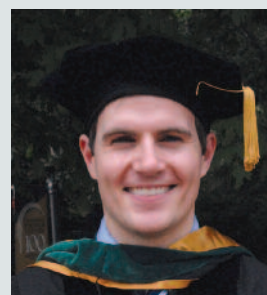
"This experience has been incredibly valuable to pursue my interest in teaching," she said. "By being engaged in direct teaching, development of educational materials, education research, and education administration, I've received diverse exposure, and consequently learned a broad range of lessons about the many facets of medical student education. The year has helped to confirm my desire to continue to pursue this clinician-educator interest."

- JON COOMER

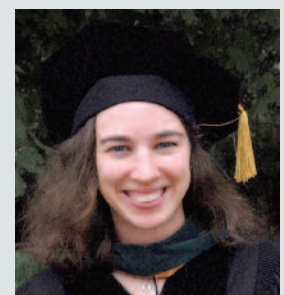
CRS GRADS: WHERE THEY MATCHED



Elizabeth Eby
Wake Forest University
Baptist Medical Center;
Pediatrics



Brent Taylor
Medical University of
South Carolina;
Medicine-preliminary;
Dermatology



Rebecca Dezube
Johns Hopkins Hospital;
Internal Medicine

IN BRIEF

CRS SCHOLAR PENS MEMOIR

Mona Sadek, M.D., MD '94, has published her memoir, "From Kittens to Babies" (PublishAmerica). The book tracks Sadek from her birth in Nicosia Cyprus to her years spent in Greek, American, and British schools in Damascus, Syria, and in Cyprus, to her move to the United States, where at the age of 16, she began college. Sadek recalls the horrors of growing up during wartime: walking weekly for the family's water as fighter planes zoomed across the sky and bombs detonated in the neighborhood. All the while, the Sadek home was a safe haven for feline strays. Sadek makes the connection from watching in wonder as the kittens' babies were born in front of her eyes to her career path taking gradual shape. She completed an undergraduate degree in microbiology and earned her medical degree from Vanderbilt University School of Medicine where she was a Canby Robinson Scholar. She completed an internship and residency in obstetrics and gynecology at the Johns Hopkins School of Medicine, where she met her future husband. They live in the Roanoke Valley, Va., with their two children.

ASCHNER CONTINUES LIFE-SAVING WORK AS JULIA CARELL STADLER CHAIR

Judy Aschner, M.D., director of the Division of Neonatology at the Monroe Carell Jr. Children's Hospital at Vanderbilt, feels honored to be named the first holder of the Julia Carell Stadler Chair. The endowed chair is named after Julia Stadler, co-chair of the Campaign for Children and Mothers at Children's Hospital and daughter of Children's Hospital namesake, the late Monroe Carell Jr.

"This is a huge honor, probably the highest honor to receive in academia," Aschner said. "It's an enormous validation for all that I've worked hard to achieve throughout my career."

Aschner came to Vanderbilt in 2004



TOMMY THOMPSON

OUTREACH TOURS

Ann McGauran, architect/project manager, right, leads CRS board members on a tour of the recently renovated Vanderbilt-Ingram Cancer Center. Pictured from left are: Tony Scoville, Beth Franklin, Orrin Ingram, Earl Bentz and Suzanne Petrey.

from Wake Forest University where she served as director of the Neonatal-Perinatal Medicine training program. She received her medical degree and completed a pediatric residency and neonatology fellowship at the University of Rochester School of Medicine in New York.

For patients in this area, Aschner's specialized training will result in improved patient care and saved lives. Sean Tuley's family knows firsthand of Aschner's dedication and skill.

Sean and Jolene Tuley's twins were delivered at 23 weeks and were being treated at a Nashville hospital. Their son died and the couple asked Aschner to see their daughter, Clara, who weighed only

1 pound, 5 ounces. The couple decided to transfer their daughter to Vanderbilt.

"Dr. Aschner is the very reason Jolene and I moved our daughter," Tuley said. "Her leadership of an amazing NICU team convinced us to move Clara, who was still struggling and fighting for her life, and place her into Judy's care."

Clara spent nearly three months in the NICU before being discharged in April 2008. She is now a healthy, happy 1-year-old.

"We believe her successful development is directly attributable to the care she received from Judy and the Vanderbilt team," Tuley said.

- JON COOMER

web links

In order to provide more information to our CRS members, we are moving additional content to our Web site: www.mc.vanderbilt.edu/crs. Please look for these stories online:

New board members

Ten people were asked to join the board of the Canby Robinson Society, and all bring an extensive array of knowledge and experience. Meet them here.

Where are they now?

Erik Musiek, M.D., Ph.D., MD/PhD '07, is one of the first two CRS scholars to earn a dual degree. Find out what he's been up to since graduating.

ANN H. PRICE, M.D.
Executive Director
for Medical Alumni Affairs



CONTACT

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www.mc.vanderbilt.edu/medschool/alumni

Vanderbilt Medical Alumni Reunion 2010

Reunion 2008 was a huge success, thanks in large measure to a record number of Vanderbilt Medical Alumni participants. While our next medical reunion is more than a year away, we are already making plans for the Reunion 2010 weekend, in conjunction with Homecoming 2010. Please note that Medical Reunions are held biennially on even years. While we will not have a medical reunion in 2009, the VMAA will hold an Open House during the 2009 Homecoming activities. We invite all those coming to campus for VU undergraduate reunions to join us for this event on Oct. 16.

Our next Vanderbilt Medical Alumni Reunion will be held Oct. 21-23, 2010.

REUNION 2010 SPECIAL ANNIVERSARY CLASS CELEBRANTS	
<i>Quinq Plus</i>	<i>1959 and earlier</i>
50th	1960/1961
45th	1964/1965
40th	1969/1970
35th	1974/1975
30th	1979/1980
25th	1984/1985
20th	1989/1990
15th	1994/1995
10th	1999/2000
5th	2004/2005

Epocrates Benefit

Vanderbilt Medical Alumni Association (VMAA) is offering a 15 percent discount on all Epocrates® products. Epocrates, Inc. develops clinical information and decision support tools that enable health care professionals to find answers at the point of care. Although Epocrates basic tool, Epocrates RX, is available as a free download online, a number of expanded tools are available for purchase including Epocrates Essentials, an integrated drug, disease, and diagnostic suite for mobile devices; Epocrates Rx Pro, a mobile drug reference with ID treatment guide; Epocrates Coder, a mobile guide to ICD-9 and CPT codes; and Epocrates Medical Dictionary, a mobile guide to various medical terms. To learn

more about Epocrates products and services visit <http://www.epocrates.com>. Before purchasing any Epocrates product, please contact the VMAA by e-mailing medalum@vanderbilt.edu to obtain your unique VMAA 15 percent discount code to apply at the point of online purchase.

Vanderbilt School of Medicine 2010 Alumni Directory

The VMAA is working with Harris Publishers to produce our next VMAA print and CD directories. You will receive more information via e-mail and mail about this project. Your participation will refresh your Vanderbilt database profile and help us keep connected with you even if you choose not to purchase a directory. We project a June/July 2010 distribution date for our new directories – well in advance of our next Medical School Reunion in the fall of 2010.

VUconnect Community and Facebook

Vanderbilt University launched VUconnect in June, a new online community to replace the university's previous online database Dore2Dore. VUconnect is accessible to both students and alumni, and can be used to network, stay connected with friends and read about VU and VUSM news and upcoming events. Of note, VUconnect interfaces with Facebook, and in anticipation of the VUconnect launch, the VMAA formed a VMAA Facebook group. All medical alumni are invited to join our VMAA Facebook Group by e-mailing vumcalum@hotmail.com to indicate your interest.

Worthy of Note News

Please take a moment to submit your "Worthy of Note news" for our next Vanderbilt Medical alumni news section. Send your 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.

Ann H. Price

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
- FA - Faculty
- CF - Clinical Faculty
- * Indicates CRS member

40s

Jack Fleming, M.D., HS '47-'49, and his wife, Carolyn, have written a book, "Thinking Places, Where Great Ideas Were Born," (Trafford). The book is a tale of many journeys, a collection of fresh insights into the lives of creative people based on their visits to the homes and thinking places of more than 30 creative people in the United States and Great Britain. The couple resides in Pensacola, Fla., and enjoys spending time with family, traveling, singing, songwriting, musical theatre, and Pensacola history. They have three children and nine grandchildren.

***Joseph Little, M.D.**, MD '43, HS '43-'44, turned 90 in March 2008. He welcomed a great-grandson who joins three great-granddaughters. He and his wife, Sarah, enjoy life at Richland Place Retirement Center in Nashville.

***Harris D. Riley Jr., M.D.**, MD '48, HS '50-'51, FE '53-'54, emeritus professor of Pediatrics, is being honored with an endowed chair in his name from the Children's Medical Research Institute (CMRI). CMRI will estab-

lish a \$1 million endowed chair in pediatric education to honor Riley, the former chairman of the department. For more information about the Riley endowed chair, please contact Jill Smith at (405) 271-2550.

***Sarah Sell, M.D.**, MD '48, HS '48-'49, emerita professor of Pediatrics, says she is finally, completely retired, but still finds life to be busy as "there are many interesting things left that I had not time to do earlier." She keeps in touch with her friends in the Department of Pediatrics. She has two sons, Charles, a leveraged buy-out specialist, and Clive, an ophthalmologist, and five grandchildren.

50s

John Clariday, M.D., MD '51, lives in Mineola, Texas. He retired in 1985 and remains in good health. He enjoys fishing and golfing. He has been married for 60 years and has four children, seven grandchildren and six great-grandchildren.

***Stanley Elmore, M.D.**, MD '58, HS '58-'60, '62-'65, FE '65-'66, recently attended his 50th Vanderbilt Medical School reunion, which he referred to as "a great celebration and reinvigorating to reflect on those four years together." At the reunion he picked up a reproduction of his class commencement program and was reminded that he had received an award from the American Academy of Dental Medicine at graduation. Since Vanderbilt had no school of dentistry, he was a bit confused and felt

undeserving. "It was speculated that I was the only one in our class who had done hard tissue (bone) research, and that qualified as interest in dentistry," he mused.

Robert Sanders, M.D., MD '55, HS '55-'58 posthumously received the Alumni Achievement Award from the Vanderbilt Medical Center Alumni Association in October for his contribution to seat belt safety and awareness. His son, Robert, has written a biography of his father entitled "Dr. Seat Belt - The Life of Robert S. Sanders, M.D." His daughter, Priscilla, is a graduate student at Peabody College. The Rutherford County Health Department building has been named for Sanders.

W. Carter Williams Jr., M.D., MD '56, HS '56 - '63, FE '59 retired from practice in December 2006.

60s

Antonio Gotto, M.D., DPhil., MD '65, is in his 13th year as Dean of Weill Cornell Medical College in New York. He is enjoying leading a capital campaign to establish a new biomedical research building as well as to expand their branch in Qatar, which graduates its second class of physicians this year. Gotto travels extensively and particularly enjoys trips to Hong Kong with his wife, Anita, to visit their daughter and her family. The couple has three daughters and four grandchildren.

Daniel Hightower, M.D., MD '64, HS '64-'69, lives in Nashville. He was featured in 2008 "Best Doctors in America," 2008 "Cambridge Who's Who V.I.P.," and is on the board of directors of Bach Pharma, Inc. He has three daughters and one son.

Robert LeGrand, M.D., HS '68-'70, '72-'76, is practicing neurosurgery in San Angelo, Texas. In recognition of his and his wife, Jean Ann's, ongoing support and contributions to Angelo State University academics and athletics, the Board of Regents of the



Somers Randolph, son of *Judson Randolph, M.D., MD '53, HS '54-'55, is a renowned sculptor living in Santa Fe, N.M. LeQuire Gallery recently exhibited his work, Alabama Marble, above. Gallery owner Alan LeQuire, is a son of Virgil LeQuire, M.D., MD '46, FE '49-'51.

Texas Tech University System unanimously voted to award the couple the honorary degree of Doctor of Humane Letters during May commencement. The couple has six children and two grandchildren.

***Newton Lovvorn Jr., M.D.**, MD '63, HS '64-'67, was inducted into the Seton Society of Saint Thomas Health Services. He retired from private practice in December 2008.

Robert Lowe, M.D., MD '64, HS '64-'70, was inducted into the Marshall University Sports Medicine Hall of Fame. Lowe was a team physician for Marshall from 1971 - 1990. The 9th Annual Hall of Fame ceremony was sponsored by the Cabell-Huntington Hospital. Lowe is a board-certified orthopaedic surgeon at Scott Orthopaedic Center and serves as president of the Tri-State Orthopaedic Society in Huntington, W.V.

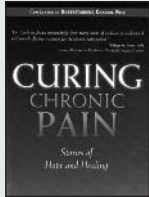
WEB LINK
To read an essay by William Fleet, M.D., MD '58, in which he reminisces about his first year in medical school, please visit www.mc.vanderbilt.edu/vanderbiltmedicine

book focus



Robert Kiger, M.D., MD '58, HS '58-'59, recently published his first novel, "His Kingdoms Come," which chronicles the clash between faith and science. Kiger is retired from private practice at the South Carolina Heart Center, and currently lives in Camden, S.C., with his wife, Shirley. They have two sons and three grandchildren. In addition to writing fiction and poetry, he enjoys traveling the world and elk hunting.

book focus



Robert Cochran Jr., M.D., MD '59, HS '59-60, published "Curing Chronic Pain – Stories of Hope and Healing" (Providence House). The book examines the relationship between chronic pain and delusions, hallucinations, phobias and other mental health conditions. Cochran has found that chronic pain can be alleviated with the careful application of certain drugs. The book is a companion to "Understanding Chronic Pain."

annual meeting in January. He also leads Interplast South in its ongoing mission to San Pedro Sula for cleft care twice a year.

***John Sergent, M.D., MD '66, HS '70 - '72,** has written the book "Healing Words" (Cold Tree), a compilation of newspaper columns he has written over a 20-year period for the *Tennessean*. The 200-plus columns he has submitted have mostly related to medical and health policy issues, and occasionally personal topics. Sergent is a professor of Medicine and vice chair for Education and Residency Program Director at Vanderbilt.

Carol Waslien, Ph.D., FE '68-'71, has returned to the Middle East to assist with the development of an undergraduate program in dietetics at Kuwait University. She is still involved in research with the Ministry of Health and the Kuwait Institute for Scientific Research.

70s

***Bruce Dan, M.D., MD '74, HS '74-'78, FE '77-'80,** adjunct associate professor in the Department of Preventive Medicine, has been named chief medical officer and executive medical editor for NBC Universal Digital Health Network



Edward Oldfield, M.D., HS '73-'80, was presented with the 2009 Cushing Medal, the highest honor granted by the American Association of Neurological Surgeons at the AANS Annual Meeting in San Diego. He is a professor of Neurosurgery and Internal Medicine at the University of Virginia.



Bill Chestnut, M.D., MD '67, HS '67-'68, has an orthopaedic practice in Albuquerque, N.M., specializing in treating degenerative knee disease with hydraulic acid injections and in developing minimally invasive outpatient alternatives to total knee replacement.

Allen McCutchan, M.D., HS '68-'70, retired this spring as professor of Medicine at the University of California, San Diego. He continues to work part-time managing several international HIV/AIDS-related projects. Since 2005 he has directed a program of training and assistance for treatment for the Uniformed Services of Ethiopia. He continues to coordinate international studies of NeuroAIDS at the UCSD's HIV Neurobehavioral Research Center.

Joseph Pryor, M.D., HS '64-'67, is a retired professor of Ob/Gyn at the University of Mississippi School of Medicine. He and his wife, Carol Ann, recently celebrated their 50th anniversary with family.

Brent Seagle, M.D., MD '67, HS '71-'72, was elected president of the Florida Cleft Palate-Craniofacial Association at its

and recently won the International Health and Medical Media Award for Outstanding Health and Wellness Program for his work on The Patient Channel.

Henry Foster Jr., M.D., FA '77 - '00, former interim president of Meharry Medical College and clinical professor of Ob/Gyn at Vanderbilt, received the National Medical Association (NME) 2008 Scroll of Merit Award, given in recognition of Foster's distinguished career in medicine, spanning more than four decades in domestic and international health and administration as a leading proponent of quality health care for African-Americans and the disadvantaged including those in the rural South."

Robert Friedman, M.D., HS '76-'79, has accepted a position as Director, Pain Medicine at the Charleston, S.C., VAMC. He is working to develop an interdisciplinary pain program to serve the needs of all veterans, especially those returning from Iraq and Afghanistan.

***David Gershenson, M.D., MD '71,** was elected chair of the Gynecologic Cancer Foundation, a

worthy of note



Barbara Albers Jackson, Ph.D. '69, is a biochemist by day and screenplay writer by night. She is a professor of Chemistry at Tennessee Tech University and has been quite active as a writer and filmmaker. She is a member of the Writer's Guild of America and has written 14 feature length scripts, 11 of which have won or placed in contests. While her scripts have not yet made it into production, two of her produced shorts have won awards: "Heavenly" received a Bronze Award at Worldfest Houston in 2002, and "Forgotten Son" received a Best Short Award at the International Family Film Festival in 2007. An abbreviated version of "Forgotten Son" can be found on You Tube. It is a fictionalized story about methamphetamine addiction seen from the point of view of a teenager whose mother is an addict. Jackson has written an adaptation of her

award-winning feature animation script into a graphic novel, "RAMA the Legend," which is published by Arcana Studios. This is a westernized version of the second most popular Hindu classic, "The Ramayana." She has also written a stage play adaptation of her comedy script, "The Marriage Contract."

non-profit organization established in 1991 by the Society of Gynecologic Oncologists. He is editor emeritus of *Gynecologic Oncology*, having served as editor-in-chief from 1990-2008. With the help of GCF, he hopes to expand research programs and find more opportunities to serve his community.

***Clark Gregg, M.D.,** HS '72-'78, FE '77-'79, is the incoming governor for the Texas Northern District of the American College of Physicians.

Stephen Hines, M.D., MD '77, HS '77-'80, has been elected into Fellowship of the American College of Physicians and was officially inducted in the convocation ceremony in Philadelphia in April.

***A. Everette James, M.D.,** FA '75-'00, former chair of the Department of Radiology, and his wife, Nancy, have been inducted into the Riddick Society of North Carolina State University. The Riddick Society, created in 1994, honors lifetime support in the form of outright gifts or irrevocable planned gifts. James was the president of the NCSU Veterinary School Foundation. They have also been inducted into the James B. Duke Society of Duke University. James is a member of the Dean's Advisory Board of the Johns School of Public Health.

John Neblett Jr., M.D., MD '77, HS '77-83, and his wife, Victoria, have one son, John Phillips, a starting lineman and honor student at Knoxville Catholic High School. Neblett served as 2008 lay leader at Grace United Methodist Church and travels annually with Victoria as a surgeon with the Medical Mission Ecuador.

***Gary Nicolaisen, M.D.,** MD '79, was recognized with the prestigious Kaiser Permanente (KP) Leadership Award in May. He is chair of the Chiefs of Urology in the organization's 19-hospital system. He is also responsible for



Gary Goforth, M.D., MD '80, pictured here with his wife, Kathy, MA '78, served in Kabul, Afghanistan at CURE International Hospital from July 2008 to June 2009 in the development of the country's only Family Medicine Residency Program. He served as a key leader in the development of Hope Family Medicine Afghanistan and the Academy of Family Medicine. These organizations will oversee development of Family Medicine residency training, certification and recertification examinations, and continuing medical education for family medicine graduates within Afghanistan. The new flagship hospital, Afshar Hospital, provides critical medical services to women and girls in a predominantly Hazara ethnic area of the city, which was completely destroyed during the civil infighting of the '90s. The hospital opened for patients in April, and Goforth plans to begin residency training in July. Their greatest need is assuring funding for the training program, but they have several great partners in the United States. "Our goal is to supply family physicians to district and provincial hospitals throughout Afghanistan," Goforth writes. "I am excited to be involved in the development of Hope Family Medicine Afghanistan. I came to Afghanistan to make a difference in developing primary care services in this very troubled nation."

worthy of note

surgical services in the KP Northern California hospital in San Rafael.

80s

Samuel Bouchillon, M.D., HS '80-'82, is the medical director, vice president and principal owner of International Health Management Associates, Inc., in Schaumburg, Ill., a CRO specializing in international drug studies.

Ken Devault, M.D., HS '86-'89, is the chair of the Division of Gastroenterology and Hepatology and associate chair for Quality in the Department of Medicine at Mayo Clinic in Florida. He is a professor of Medicine and a former trustee of the American College of Gastroenterology. He and his wife, Shelley, have six children and are very active in the support of children's issues in China.

Eduardo Fraifeld, M.D., HS '88-'91, is president-elect of the American Academy of Pain Medicine and currently serves on the board of directors of the Southern Pain Society, Virginia Society of Anesthesiologists and the Virginia Medical Society PAC. After 12 years, he left Danville Regional Medical Center in Virginia and has opened

Southside Pain Solutions. He has two sons, Sam and Ben.

***Bill Frist, M.D.,** FA '86-00, professor of Medicine and Business, has introduced and taught a unique course on health economics that is comprised of 12 medical students and 12 business students. The course integrates health policy, business principles, and state-federal reform. The course will be repeated in the fall. Former U.S. Sen. Frist founded the Vanderbilt Multi-Organ Transplant Center and served as majority leader of the U.S. Senate. He has been on the Vanderbilt faculty since 1985.

Melanie Levitan, M.D., MD '83, has had a private practice in Family Medicine for the last 14 years. The practice has an integrative model with acupuncture, nutrition, psychotherapy and functional medicine offered as complements to traditional therapies. Melanie and her husband, Joel just celebrated their 27th anniversary. They live in the Berkshires and have two children, Jocelyn, 24, and Matt, 22. They enjoy cross-country skiing, hiking, tennis, bicycling and yoga.

Rex M. McCallum, M.D., MD '80, is the Governor of the North Carolina Chapter of the American College of Physicians,

the national organization of internists. His term began in April. A resident of Durham, N.C., McCallum is a professor of Medicine in the Division of Rheumatology at Duke University, where he also serves as Associate Director of the Private Diagnostic Clinic, PLLC.

***Mace Rothenberg, M.D.,** HS '82-'85, is starting a new chapter in his career after 20 years in aca-



Amin Barakat, M.D., FA '86-'89, clinical professor of Pediatrics at Georgetown University Medical Center, recently published a book, "Pediatric Nephrology for Primary Care" (Barakat, AJ, and Chesney RW, American Academy of Pediatrics, 2009). The 511-page book is part of a series by the Academy on different specialties for primary care physicians and is a clear, concise overview of pediatric nephrology that primary care physicians, residents and medical students find very useful.

worthy of note

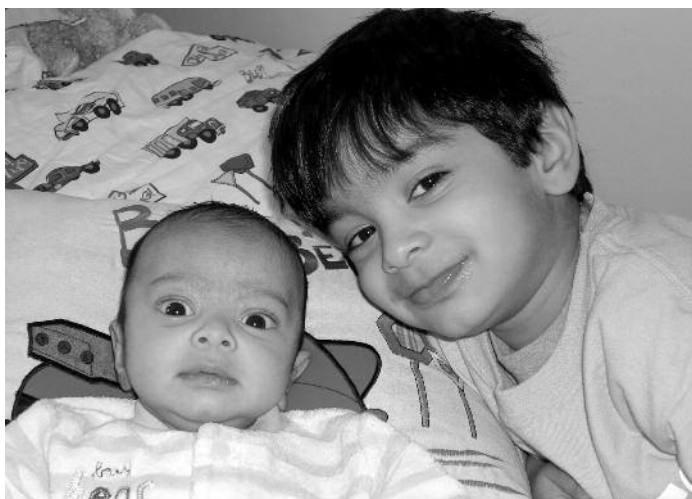
Monita Soni, M.D., HS '95-'97, grew up in Mumbai, which at the time was called Bombay. She still has family there including her parents, sister and other relatives. It was with great anxiety that she listened to news reports about a series of terror attacks in the city that left 200 people dead in November 2008. Soni, a pathologist in Decatur, Ala., was at work when she heard the news of the attacks. She immediately called her family to make sure they were OK, and they were. Soon after the attacks, Soni returned to India. In other news, her daughter, Abha, recently earned a Master's degree in Epidemiology and is heading to medical school. Abha recently participated in the 27th Annual Nationwide Miss India USA 2008 pageant where she received Miss Popularity and Miss Congeniality honors.



Sovana Moore, M.D., MD '00, HS '00-'01, and her husband, Steve, welcomed their first child, Shelby, on Dec. 17, 2008. She weighed 6 lbs., 1 oz., and was 18 1/4 inches long.

demc medicine. In December he became senior vice president at Pfizer, responsible for oncology clinical development and medical affairs worldwide. He and his family continue to live in Nashville, but he will be splitting his time professionally between New York, New London, Conn., La Jolla, Calif., and Milan.

Chris Sarzen, M.D., MD '88, HS '88-'92, is in private practice in Atlanta, specializing in digestive diseases. An accomplished pianist, he enjoys the opportunity to perform with other musicians, including recitals with members of the Atlanta Symphony Orchestra. He has performed benefits to provide scholarships



Gargi Gajendragadkar Gandhi, M.D., MD '01, welcomed a son, Kavi, on Feb. 12. He joins his big brother, Shaan, 3.

for young musicians. He was the winner of the Pro-Mozart Society of Atlanta's 2008 Scholarship for study at the Mozarteum in Salzburg, Austria.

Herbert Schwartz, M.D., FA '87 – present, professor of Orthopaedics and Rehabilitation, has been named chair of the Department of Orthopaedics and Rehabilitation. Schwartz fills the role previously held by longtime departmental leader Dan Spengler, M.D.

90s

Robert Hoover, M.D., HS '90-'93, returned to CIGNA Government Services as the senior medical director for the Medical Fee-For-Service contract. He is responsible for coverage and coding of durable medical equipment, prosthetics and orthotics in the southeastern United States. He resides in Nashville with his wife, Elizabeth, and two children, Robert and Brinton.

David Myers, M.D., MD '97, finished a pediatric nephrology fellowship at Seattle Children's Hospital in June and earned an M.S. degree in Clinical Epidemiology and Research Design with certificate in public health genetics at the University of Washington. He will start as an assistant professor of Pediatrics in the Division of Pediatric Nephrology at the University of Iowa Children's Hospital in July.

Esther Maksymovitch Penn, M.D., MD '98, spent six months at home with her newborn daughter, Misha, and has returned to work with another Kaiser Permanente facility in Petaluma, Calif.

Seenu Reddy, M.D., M.B.A., HS '95-'02, is an assistant professor of Surgery at the University of Texas Health Science Center, specializing in minimally invasive coronary artery bypass surgery.

George Shanno, M.D., MD '95, is in private practice in Vancouver, Wash., in a large combined orthopaedic and neurosurgical group called Rebound, practicing neurovascular and general neurosurgery. He serves on the board of Southwest Washington Medical Center. He and his wife, Lucy, have two sons, Hugh and Theo. They spend their free time skiing on Mt. Hood in the winter and biking in the summer.

2000-

Laurie Archbald-Pannone, M.D., MD '02, and her husband, Aaron, welcomed their second child, Teresa Lauren, on Aug. 20, 2008. Their son, Joshua, was born June 17, 2006. Laurie joined the faculty at the University of Virginia in 2008. She is an assistant professor in Internal Medicine and has received NIH funding to perform clinical research on infections in hospital and long-term care settings.

Bryan Cotton, M.D., FA '04-'07, recently accepted and started a new position as associate professor in the Department of Surgery



David Morris, M.D., MD '03, and his wife, Betsy, welcomed their first child, Avery, in late 2007. Morris is completing his residency in Urology at the University of Michigan and is moving back to Nashville to join Urology Associates PC. He will be working in the Hendersonville and Gallatin areas.



Bernard Rousseau, Ph.D., FA '05- present, (left) assistant professor of Otolaryngology, received the 2008 Young Faculty Award from the American Laryngological Association in recognition of his work involving "Extracellular Matrix Gene Expression after Vocal Fold Injury in a Rabbit Model." **Tnuneshia Ohno, M.D., FE '07-'09,** (right) an alumnus of Rousseaus's lab, will receive the 2009 Young Faculty award from the American Laryngological Association in recognition of work entitled, "Regeneration of Aged Rat Vocal Folds Using Hepatocyte Growth Factor Therapy."



Brock Schweitzer, Ph.D., (right) president of the Post-Doctoral Association and VMAA Board member, joined **Ann Price, M.D.,** executive director of the VMAA (left), at the Postdoctoral Research and Shared Resource Symposium. Price presented a check to the Post Doc of the Year recipient, **Lydia Wroblewski, Ph.D.**

at the University of Texas Health Sciences Center and an appointment to the Center for Translational Injury Research, both in Houston.

Elise Fallucco, M.D., MD '04, finished her child and adolescent psychiatry fellowship in June and is staying on as a faculty member at Washington University for the next year while her husband, Michael, finishes his fellowship in plastic and reconstructive surgery.

Travis Hansen, M.D., HS '00-'01, has been named new medical director for the South Dakota Human Services Center. Hansen joined the staff at the Human Services Center in 2005 after residency work at Vanderbilt and the University of Kentucky. He specializes in adult general psychiatry and child adolescent psychiatry. Hansen says the new position is a chance to make some changes in the name of improved patient care.

Bennett Hooks, M.D., HS '02-'05, was elected into Alpha Omega Alpha as a fellow at the University of South Alabama College of Medicine. He is moving to San Antonio, Texas, with his wife, Beth, and their two daughters, Isabelle and Lillian, for a one-year advanced endoscopy GI fellowship.

***BethAnn McLaughlin, M.D., FA '02 - present,** assistant professor of Neurology, has been appointed to the editorial board of the *Journal of Neuroscience* as an associate editor in the cellular and molecular section for a three-year period.

Lt. Commander Tim Oeltmann, M.D., MD '04, a flight surgeon and naval aviator in the U.S. Marine Corps, received the 2007 Richard E. Luehrs Memorial Award, selected from among 250 nominees. The Luehrs Award is given annually to recognize outstanding performance in operational aviation medicine practice by a first- or second-tour Naval



Angela Eeds, M.D., Ph.D. '06, and husband, Gary, are the proud parents of son, **Isaac David,** born Feb. 11. Angela is an instructor and director of Student Research at the School for Science and Math at Vanderbilt.

Flight Surgeon of the rank of Lieutenant or Lieutenant Commander. Selection is based on leadership qualities, dedication, initiative, resourcefulness and industriousness in carrying out their duties with the operational forces.

Alyssa Throckmorton, M.D., HS '02-'07, and **Quin Throckmorton, M.D., HS '07,** are moving back to Tennessee in the fall. Quin will begin a shoulder and elbow reconstruction practice with the Campbell Clinic in Memphis, and Alyssa will start as a breast surgeon for the Baptist Women's Hospital. They are expecting their first child in August.



Bridget Lauro, M.D., MD '01, and her husband, Joe, welcomed daughter, **Anneliese Victoria,** on Sept. 3, 2008. They live in Evergreen, Colo., and both practice medicine in Denver. She is on the partnership track with Rocky Mountain Radiologists, PC, and he is a partner with Emergency Medicine Physicians.

William F. Boeckmann, M.D., HS '84-'86, died March 31. He was 59. Dr. Boeckmann graduated in 1973 from the University of Rochester in New York, with a B.A. in Biology/Psychology. He graduated in 1979 from State University in New York with his medical degree. He was employed by Professional Emergency Physicians in Fort Wayne, Ind. He is survived by his wife, Janet; children, Sarah, Will and Seth.

***James Callaway, M.D.**, MD '47, HS '47-'49, died Nov. 21, 2008. He was 85. Dr. Callaway served with the U.S. Navy at Bethesda Naval Hospital in pulmonary medicine research. He returned to Nashville in 1953 where he practiced internal medicine until his retirement in 1998. He is preceded in death by his wife, Nan. He is survived by children, Jim, Tom, Mike, Elaine and Catherine; and six grandchildren.

Richard W. Carpenter, M.D., MD '62, died March 28. He was 75. Dr. Carpenter graduated from Vanderbilt University in 1955. He served as an officer in the U.S. Navy from 1955-1958. He eventually settled in Morehead, Ky., where he founded the Morehead Clinic in 1971, started the first cardiac-rehab program there, and practiced internal medicine for 25 years. He is survived by children, Wendy, Rachel, Chris and Sam; and six grandchildren.

William A. "Bill" Cook Jr., M.D., HS '53-'55, died Dec. 28, 2008. He was 86. He graduated with a B.S. degree from Wake Forest. He served in the U.S. Marine Corps during World War II. Following his graduation from the Medical College of Virginia in 1951, he served residencies in Ob/Gyn. He practiced Ob/Gyn in Lynchburg, Tenn., retiring in 1992 at the age of 70. Dr. Cook is survived by his wife of 53 years, Jean; children, Ruth, Bill, John, Robert and George; and 15 grandchildren.

***Orrie Alexander Couch Jr., M.D.**, MD '40, FA '57-2000, died Feb. 1. He was 81. Dr. Couch had a private

practice of internal medicine in Nashville from 1948-2005 and was an assistant clinical professor of Medicine at Vanderbilt University School of Medicine. He served on the medical staffs of Saint Thomas Hospital, Baptist Hospital, Vanderbilt University Hospital, Metropolitan Nashville General Hospital and Centennial Medical Center. He served as a Medical Corps Officer in the U. S. Army from 1942 - 1946. Dr. Couch is survived by his wife, Marion; children, Nena, Constance, Barbara, Arthur, and Chester; and seven grandchildren.

George Crafton, M.D., HS '51-'54, died Jan. 10. He was 88. He was born in Fulton, Ky., and graduated from the University of Louisville School of Medicine. He served as chief of Ob/Gyn at Baptist Hospital and was past president of the Nashville Ob/Gyn Society and the Tennessee Ob/Gyn Society. He is survived by his wife of 59 years, Martha; children, Sarah, George and William; and five grandchildren.

***William DeLoache, M.D.**, MD '43, HS '44-'48, died March 4. He was 89. He attended Furman University and Vanderbilt University. After service in the U.S. Army Medical Corps, he returned to South Carolina to practice pediatrics. He founded the Christie Pediatric Group in Greenville, S.C., where he practiced for 20 years. He later became director of Nurseries for the Greenville Hospital System. He spearheaded passage of S.C. legislation requiring child restraints in automobiles. Dr. DeLoache is survived by his wife of 65 years, Bond; children, Frances and William; and six grandchildren.

William Dungan, M.D., MD '54, HS '54 - '57, died March 8. He was 78. After serving in the U.S. Air Force Medical Corps, where he was the Chief of Pediatrics at the USAF Hospital at Eglin Air Force Base in Florida, he joined the faculty at the University of Arkansas for Medical Sciences. Dr. Dungan received the Distinguished Service Award from the University of Arkansas College of Medicine in 1997, and he was

inducted into the UAMS Hall of Fame in 2004. Dr. Dungan is survived by his wife of 56 years, Betty; children Gail and Susan; and four grandchildren.

Charles Ellicott, M.D., HS '48-'52, died Nov. 25, 2008. He was 85. Dr. Ellicott earned his medical degree from the Johns Hopkins University School of Medicine. He established his medical practice in Lexington, Mass. After the death of his wife, he returned to Baltimore and joined an internal medicine practice in Lutherville, where he retired. Dr. Ellicott became active with a number of organizations dedicated to serving the disabled. He is survived by children, Abbie and Aimee; and four grandchildren.

Charles Feuss, M.D., MD '46, died Dec. 24, 2008. He was 87. He served in the Army Medical Corps until 1950 and then practiced Psychiatry until his retirement in 1994. Among his career highlights were serving as superintendent of Longview State Hospital in Cincinnati, medical director of Emerson North Hospital in Cincinnati, and chief clinical officer at the Pauline Warfield Lewis Center from 1985 until his retirement. In addition to his practice he served as an assistant professor of Psychiatry at the University of Cincinnati School of Medicine and as a professor of Psychology at Xavier University in Cincinnati.

***Judith S. Gravel, Ph.D.**, '85, died Dec. 31, 2008. An internationally renowned pediatric audiologist, Dr. Gravel held the William P. Potsic Endowed Chair in Pediatric Otolaryngology and Childhood Communication at Children's Hospital of Philadelphia. Throughout her illness, she continued to serve as the director of the Center for Childhood Communication at CHOP where she elevated the service, education and research mission of the center through her strong leadership and mentoring. Dr. Gravel is survived by her husband, Bruce; children, Julie and Jay; and six grandchildren.

John Harrison, M.D., HS '43-'44, died March 20. He was 90. Dr. Harrison was a graduate of The Citadel and Johns Hopkins University Medical School. He worked in pathology at Philadelphia General Hospital and served in the U.S. Army Medical Corps as a battlefield surgeon. Dr. Harrison joined his father's medical practice in Greenwood. In the early 1950s he and Dr. W.P. Turner formed a partnership which continued until his retirement in July 1985. He is survived by his children, Lynn, Beth, John and Guy; eight grandchildren; and three great-grandchildren.

***G.B. Hodge, M.D.**, MD '42, died Feb. 23. He was 91. Dr. Hodge led in founding what is now the University of South Carolina Upstate. A prominent surgeon, he chronicled the history of the campus and its leadership in his memoir entitled, "Reflections on Building an Institution: The University of South Carolina Spartanburg" in 2005. He practiced general, thoracic and cardiovascular surgery for more than 50 years. Dr. Hodge is survived by his wife, Katie; children, Susan, G. Byron and John; four grandchildren and three great-grandchildren.

Virgil M. Howie, M.D., MD '52, died Jan. 6. He was 81. He established a pediatric practice in Huntsville, Ala., that he held until 1978 when he moved to Galveston, Texas, to teach clinical pediatrics at the University of Texas Medical Branch. His and the family's lasting joy was to continually encounter parents and patients who remembered him fondly. He is survived by his wife, Evelyn; children, Carol, Helen, Sarah, Tricia, Mitch, David and John; and 13 grandchildren.

James Hunter Jr, M.D., MD '61, died Jan. 11. He was 73. Hunter practiced internal medicine for 46 years, serving 33 years in Decatur, Ala., The last year he served as a doctor, he did so in a wheelchair. His dedication to his patients continued after his practice closed. Friends, family and former

patients remember him as a caring and compassionate doctor who treated many low-income patients. Dr. Hunter is survived by his wife, Joyce; children, James, Meg, Sissy and Jane.

***Ira Thomas Johnson Jr., M.D.**, MD '48, HS '48-'51, died Feb. 3. Dr. Johnson received a bachelor's degree from Lambuth University in 1945. He was a resident physician in internal medicine at Vanderbilt University. He served a fellowship in cardiology at Baylor University in Houston, Texas. Subsequently, he practiced internal medicine in Nashville for 37 years. He is survived by his wife, Jeanine; children, Steve, Randy, Larry, Tommy and Gary; and five grandchildren.

Ake Mattsson, M.D., HS '56, died March 31. He was 79. He was associated with George Washington University School of Medicine, where he served as Clinical Professor of Psychiatry since 2004. Dr. Mattsson was a long-serving director of Division of Child and Adolescent Psychiatry at University of Virginia Medical Center, Charlottesville, New York University Medical Center-Bellevue Hospital Center in New York City, and East Carolina University School of Medicine in Greenville, N.C.

Robert McKey Jr., M.D., MD '55, HS '55-'57, died March 24. He was 79. After serving two years in the U.S. Army, he returned to Miami and began a lifetime of service with the University of Miami School of Medicine as the first chief resident in the Department of Pediatrics and then as a member of the adjunct faculty. In 1960 he set up his pediatrics practice in South Miami and later established the Cystic Fibrosis (CF) Center at UM, where he held an endowed faculty chair. Dr. McKey is survived by his wife of 54 years, Lucille; children, Robert, Randall and Dwight; and four grandchildren.

Howard Morgan, M.D., HS '49 - '53, FA '59 - '57, died March 2. He was 81. Dr. Morgan was internationally regarded as one of the greatest experimental cardiolo-

gists of the 20th century. His strong commitment to excellence in heart research is a clear vision for blending the basic sciences with clinical cardiology, and his deep devotion to helping cardiovascular scientists reach their potential, demonstrated his outstanding ability in the creative organization of medical research. Dr. Morgan is survived by his wife, Donna; daughter, Patricia; and two grandchildren.

James N. Pope, M.D., HS '66-68, died Jan. 26. He was 68. He had a private medical practice in Lynchburg, Va., and also worked as a surgeon at the Lynchburg Hospital. He practiced medicine for more than 30 years before retiring. He was a member of the Charlottesville Society for the Preservation and Encouragement of Barber Shop Quartet Singing in America. He served in the U.S. Army 82nd Airborne Division in the Vietnam War. He is survived by his wife, Loree Lynn; children, John and David; and six grandchildren.

***Fawzi Pualwan, M.D.**, MD '51, died Nov. 15, 2008. He was 82. After completing a surgical residency at Strong Memorial Hospital, Dr. Pualwan volunteered and served in the U.S. Army. He was an assistant professor of surgery at UMass Medical School and maintained a private practice for 35 years. He is survived by his wife of 53 years, Betty; children, Ramsey, Emily and Benjamin; and two grandchildren.

***Herbert Schulman, M.D.**, MD '50, HS '50 - '52, died March 8. He was 84. Dr. Schulman set up a general medical practice in Nashville and continued to see patients until his retirement in the late 1980s. In 1968 Schulman helped to create Hospital Affiliates International. He later helped start insurer HealthAmerica. Dr. Schulman's wife, the former Joan Friedman, preceded him in death. He is survived by children, Tom and Janice; and two grandchildren.

***Myron Stocking, M.D.**, MD '55, died Oct. 3, 2008. He was 77. He

was head of the Child Psychiatry Department at Tufts New England Medical Center before moving to Minneapolis in 1977, where he was a member of the Minnesota Psychoanalytic Society and a Clinical Professor of Psychiatry at the University of Minnesota. He retired in 1995. He is survived by children, Ben, Nick and Tim; two grandchildren, and his former wife, Ingrid Stocking.

Charles Suggs Jr., M.D., MD '42, died Feb. 2. He was 89. Dr. Suggs, the second fully trained Ob/Gyn to establish a practice in Chattanooga, opened his doors in 1946 with his wife, Mary, as his nurse. He served the community until he retired at the age of 80. Dr. Suggs was preceded in death by his wife. He is survived by his children, Charles, Loretta, Jeanne, Ethel, Sharon and Bill; 14 grandchildren; and one great-granddaughter.

Robert E. Tolson Jr., M.D., MD '56, died March 27. He was 80. He was a pediatrician in private practice in Bethesda, Md., from 1960 until his retirement in 1995. He had been a Rockville, Md., resident since the mid-1960s. He is survived by his wife of 53 years, Dolores; children, Anne, Barbara and Susan; and three grandchildren.

Doyle Toone, M.D., HS '57-58, died Feb. 4. He was 82. Dr. Toone practiced medicine in Fayetteville, Tenn., for many years before moving to Myrtle Beach, S.C., in 1978 and starting practice in Surfside Beach. He retired in 1987 to devote more time to his love of golf, Spanish, and political science. His eldest daughter, Marguerite "Bunny" Toone, preceded him in death. He is survived by his wife, Linda; children, Charles, Barbara, Lori, Christopher and Cregg; and five grandchildren.

Ellis J. Van Slyck, M.D., HS '49-'50, died Dec. 20, 2008. A native of New York City, he did post-graduate training at St. Luke's Hospital in New York City, Barnes Hospital, Washington University in St. Louis, Mo., and Vanderbilt University

Hospital. He served in the U.S. Army Medical Corps. In 1957 he joined the staff of Henry Ford Hospital's hematology division in Detroit. He became division head in 1978. Dr. Van Slyck is survived by his wife, Annalea; children, Loring, Zenas and Abigail; and three grandchildren.

***Thomas Waltz, M.D.**, MD '58, HS '58 - '59, died Dec. 10, 2008. Dr. Waltz had been a director of Peregrine Pharmaceuticals since 2004 and was chairman since 2005. He was a neurosurgeon and a senior consultant in neurosurgery at the Scripps Clinic in La Jolla, Calif. He was formerly chairman and CEO of the Scripps Clinic and president of the Scripps Clinic Medical Group. He also served on the board of Genoptix Inc., and Premera Blue Cross of Washington and Alaska.

Robert Williams, M.D., MD '45, died Dec. 27, 2008, in Harwich, Mass. He was 88. A retired pediatric neurologist, he was an associate professor of Pediatric Neurology and associate professor of Child Development at the University of Tennessee Center for Health Sciences in Memphis. He was a life member of the American Association of Mental Retardation and a member of the American Association of Neurology and the American Medical Association. He is survived by his wife of 53 years, Sally; and children, Sarah and Brooke.

Gottrell H. Wright, M.D., MD '51, died Feb. 2. He was 88. A retired pediatric neurologist, he was a veteran of the U.S. Army Air Corps and was awarded the Air Medal, three Oak Leaf Clusters to the Air Medal, the Distinguished Flying Cross and one Oak Leaf Cluster. He loved his family, the outdoors, hunting and fishing, but his passion was practicing medicine and helping people. Dr. Wright is survived by his wife, Glorina; children, Stephen, Roger and Mary; four grandchildren and one great-grandchild.

Graduation 2009 Photo Gallery

Pictured here:

1. Sam deMent, M.D., MD '82, celebrates with his daughter, Kimi, A&S '09, who will enter law school in the fall. 2. Brenessa Lindeman is all smiles after receiving the Founder's Medal. 3. Vernon Rayford, M.D., celebrates with some of the 40 family members who came to see him graduate. 4. José Alvarado (center) receives his Doctor of Medicine degree from left to right, his father, Jose Alvarado, M.D., and his grandfather, Jose Badia, M.D. 5. From left Patty Yoo, Carson Yoo (baby), Stephen Yoo, pose with graduate Naomi Yoo. 6. Jeremy Hon, M.D., and Lynda Hon, M.D., present their daughter Emily Hon Castellanos her degree. Her husband, Jason Castellanos, receives his degree from his uncle Salvador Manriquez, M.D. 7. Sameer Chopra is warmly congratulated by his aunt. 8. Graduates line up inside Light Hall for the start of the ceremony. 9. Lee Cole Barfield, second from right, receives his Doctor of Medicine degree from (left to right) his two uncles, William Frist, M.D., a Vanderbilt University distinguished professor, and Thomas Frist Jr., M.D., and Jeff Balsler, M.D., Ph.D., Dean of the School of Medicine.



SUSAN URRY



JOE HOWELL



3



4

MARY DONALDSON



5



6

ANNE RAYNER



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