

Vanderbilt Medicine

SPRING 2003

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Growing a
research enterprise

18

Clinical
excellence

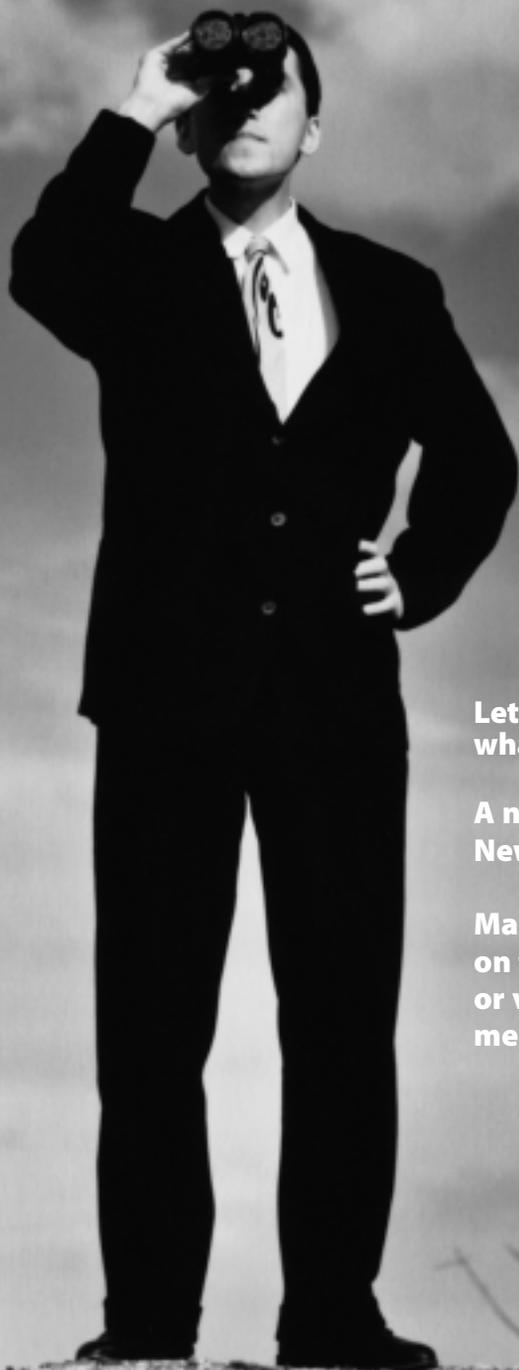
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in technology

The top 10. What will it take?



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VUMC SPRING 2003

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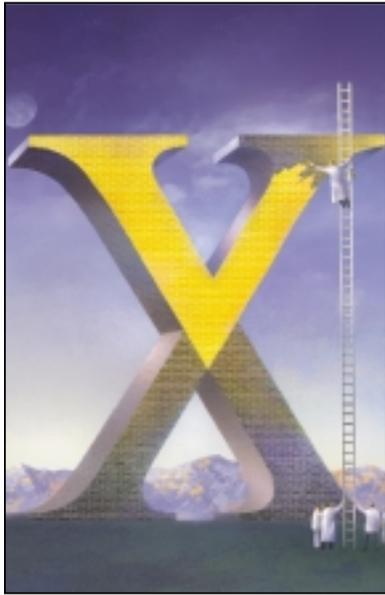
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RESEARCH PROGRAM
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Using the top 10 ranking as a focus

We were very pleased to learn earlier this year that Vanderbilt had been named to the prestigious Honor Roll of top hospitals by *US News and World Report*, one of only 17 hospitals so recognized. More recently the School of Medicine made a sharp jump in the *U.S. News* rankings, tying with UCLA for 14th. This is an honor, and I am proud of our faculty and staff for earning this distinction. I am, as you might expect, quite biased in this regard. I thought the recognition was long overdue.

Many of my colleagues are critical of these *USN&WR* rankings. I am not. We may quibble about exactly where we fall in the top 20, but I find little disagreement within the academic community about who is in that top 20. If you ask 100 academicians, they will agree on at least 18 of them.

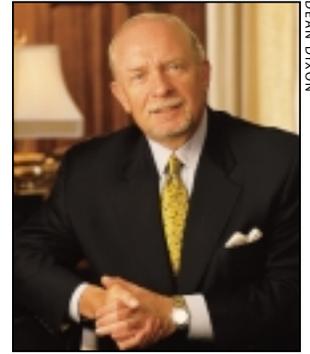
We know students and their faculty advisors pay careful attention to those rankings. It is apparent when we compete for a talented undergraduate or residency candidate. We almost always win if we are in competition with a comparably ranked school. We have only a 50/50 chance of attracting a student who holds a similar offer from a top 10 school.

Dean Gabbe has challenged his faculty to be “10 by ’10”—to earn recognition as one of the top 10 programs in the country by 2010: an achievable goal and a catchy title. If, however, it were only the “laurel wreath” of recognition that we earned at

the end of this effort, it would not be a worthy goal. This issue of *Vanderbilt Medicine* is designed to talk about what we think can be gained by using the top 10 ranking as a focus; what we can expect, why it is important for us and the community we live in and why we think it may be important for science and mankind.

In many respects, Vanderbilt is already one of the elite programs in the country. Reputation is often a “lag” indicator, earned well before it is recognized. I think our program of undergraduate medical education may be the best in the country, but it is undoubtedly among the top five. The MCATs and GPAs of our entering class match the top programs. The U.S. Medical Licensing Exam scores of our graduates are among the best. On just about any input or output measure, the School of Medicine is among the top five.

Our research program is among the fastest growing in the nation. Already in the top 20 nationally, we are growing at a rate that is astounding. Only three other institutions in the country are growing faster. The lifeblood of any academic institution is the discovery it generates through its research efforts. Our faculty are not only making those discoveries, they are helping to determine the direction of scientific inquiry by serving on some of the most prestigious review panels at the National Institutes of Health.



DEAN DIXON

BY HARRY R. JACOBSON, M.D.
Vice Chancellor for Health Affairs

The foundation of academic, clinical and research excellence, the ground on which we build our aspirations, is the faculty. It is those talented 1,200 people who really determine the strength of the institution. Our ability to attract the best and most brilliant minds to this campus is the all-important “lead” indicator of excellence. In the past five years we have seen a quantum change in the appeal of our campus to some of the brightest lights in research and clinical practice. These “bell cow” faculty recruits have set a new standard of expectation about what Vanderbilt can and will do in the future. But it is not enough simply to have them come here. The value to society is what, in the aggregate, they can produce.

They are attracted by the quality of faculty we’ve already assembled on this campus. They are attracted by the possibility of real collaboration across disciplines – a possibility that arises from a culture of collegiality, not academic competition. They are attracted by our investments in research infrastructure and our ability to self-finance new avenues of discovery and new investigators. But mostly they come because they believe their careers can flourish in an environment like this, and that they have the greatest chance at making a lasting impact on their discipline, on their society and on humankind in this vibrant and fertile academy. ♣



New measures protect patient privacy

Since new federal patient privacy regulations went into effect April 14, VUMC has taken broad new measures to protect patient information. The new federal regulations are a result of HIPAA, the Health Insurance Portability and Accountability Act of 1996.

The regulations concern all health information, whether electronic, written or verbal, that can be connected with individual patients. HIPAA also gives consumers greater control over their health information and mandates an administrative structure for compliance monitoring. The law carries criminal penalties for individuals who knowingly misuse patient information.

Each VUMC department has undertaken a self-assessment to uncover actual or potential sources for inappropriate use or disclosure of patient information. The assessment creates a department roadmap for helping Vanderbilt achieve HIPAA compliance.

Departments are supported by staff and faculty training and other enterprise-wide compliance solutions. A standard Notice of Privacy Practices is being prepared for patient signature. The notice informs patients of their rights under HIPAA and outlines how Vanderbilt will be using their information for treatment, billing, administrative functions and other routine uses that are provided for under the law.

HIPAA places patient information on a need-to-know basis, but there's nothing in the regulation that would inhibit sharing of information for purposes of treatment, said Jim Hollender, privacy official for VUMC.

"HIPAA requires reasonable effort to limit incidental exposures of patient information," Hollender said. "The intent was not to interfere with normal standards of practice. HIPAA privacy provisions are a challenge, but they're largely an administrative challenge rather than any sort of impediment to treatment."

In addition to expanded rights to review and obtain copies of their records, patients will have the right to opt out of the hospital phone directory and to request that access to their information be restricted in other ways.

"The question of when you can agree to restrict access to a patient's information will be answered as we begin to get requests and learn what the practical limitations might be for fulfilling them," Hollender said. The law doesn't force hospitals to agree to patient requests to restrict access to information; enforcement patterns will provide eventual additional guidance about practical application of the new law.

Two issues that may require special attention are patients stumbling into each other's information at high-traffic areas such as clinic check-in, and, on hospital units, the practice of giving patient updates to family members over the phone. HIPAA compliance will be an evolving process rather than a one-time fix," Hollender said.



JIM HOLLENDER

- PAUL GOVERN

Clozaril may reduce risk of suicide

The antipsychotic drug Clozaril has received the Food and Drug Administration's first indication for reducing the risk of recurrent suicidal behavior in people with schizophrenia or schizoaffective disorder. The decision, announced in December, was due in large part to an international clinical trial led by Vanderbilt's Dr. Herbert Meltzer, director of the Division of Psychopharmacology, that compared Clozaril to the more commonly prescribed drug Zyprexa.

About 1 percent of the general population worldwide has schizophrenia or the closely related schizoaffective disorder. The lives of about 4,000 people with schizophrenia or schizoaffective disorder end by suicide.

The January edition of *Archives of General Psychiatry* chronicles results of the International Suicide Prevention Trial (InterSePT), which show Clozaril, made by Novartis, reduced suicide and hospitalization for suicidal behavior among people with schizophrenia or schizoaffective disorder by 26 percent compared to Zyprexa, which could translate into an estimated 1,000 U.S. lives saved each year.

"There would be 10,000 fewer suicide attempts and 20,000 fewer hospitalizations annually, with greatly reduced costs for treatment and, of course, suffering to the individuals and their families," said Meltzer, the Bixler/Johnson/Mays Professor of Psychiatry and professor of Pharmacology.

"Suicide is the most feared outcome in the field of mental health treatment," Meltzer said. "The remarkable finding from InterSePT is that treatment with Clozaril reduced suicidal events by up to a quarter over and above an established and effective antipsychotic."

InterSePT began in 1998 and randomized 980 subjects at 67 sites in 11 countries, including 13 patients at Vanderbilt, who received, on average, 275 mg per day of Clozaril or 17 mg per day of olanzapine (Zyprexa) for the duration of the two-year study. Most people on Clozaril chose to continue it after the study ended. The drug reduced the number of suicidal behaviors (actions by a patient that put that patient at risk of death) compared to Zyprexa by 25 percent.

The study also found that the amount and frequency of additional medications required to improve mood and suicidality was significantly less with Clozaril.

Meltzer initiated the interest in the possibility that Clozaril had special effectiveness to reduce suicide in 1994. - CLINTON COLMENARES

A research program with a t

DANA JOHNSON



Medical Scholar
Brian Lishawa with
Drs. Jason Morrow, left,
and David Haas.



Research can be defined in many different ways in Vanderbilt University School of Medicine's Medical Scholars Program.

Student research projects during the one-year, in-depth research experience, can be clinical or basic. Topics have ranged from the effect of divorce on diabetic control in children to gene expression in glioblastomas.

by nancy humphrey

The program, which is geared toward trying to interest medical students in academic research careers, has attracted 32 research-oriented students since its inception in 1998. It is recognized as one of the best of its type in the United States and has served as a model for similar programs across the country.

At Vanderbilt, nine students, normally between their third and fourth year, but sometimes after graduation or in other years, take a year off from medical school to participate in research—basic, epidemiological, or clinical. They are paired with a faculty mentor (more than 200 faculty members serve as potential mentors), do not pay tuition for the medical school year, and receive a \$20,000 stipend.

“The physician-scientist is a vanishing breed, and we’re trying to turn that around,” said Dr. Jason D. Morrow, F. Tremaine Billings Professor of Medicine and Pharmacology and director of the program. “We feel at Vanderbilt that we have a highly talented group of students, a number of whom have an interest in research but don’t know how to express that. Many feel they do not want to get a Ph.D. in addition to their M.D. because that’s a very long commitment. But they want to undertake research.

“We view it as an important opportunity to give them a year to do that, to extend their medical school curriculum from four to five years, and as a result provide them in an early stage of their training with the opportunity to see what research is like. They don’t have to do basic laboratory

research. The only criterion is that they have to ask a scientific question of some type. We’re flexible.”

Students have received national recognition for their participation in the project. Fourth-year student Gopa Iyer studied PEP carboxykinase (PEPCK) gene regulation and won a Howard Hughes Medical Institute award. More than 30 published papers have resulted from research undertaken by students in the program.

For those not participating in the Medical Scholars Program, their only exposure to research is the Introduction to Biomedical Research class, two half days a week during the first year of medical school, or working in research labs during the summer break.

Students have earned dual medical/Masters of Business Administration and medical/Masters of Public Health degrees while participating in the Medical Scholars Program. The Medical Scholars Program is supported by funds from VUSM and the National Institutes of Health. It began with five slots, then NIH funded an additional three, and the National Institute for Diabetes and Digestive and Kidney Diseases has funded one.

Vanderbilt’s program has spawned similar programs nationwide. The NIH provides up to 100 slots at medical schools across the country, and the National Center for Research Resources provides up to 50 positions at various medical schools. The Doris Duke Foundation also provides an additional 50 slots across the country.

A scholarship program

Dr. John A. Oates Jr., Thomas F. Frist Professor of Medicine and Professor of Pharmacology, was the first principal investigator of an earlier scholars program at Vanderbilt, funded by the American Heart Association. After some time, the AHA put its money elsewhere, and Vanderbilt, in a strategic planning process headed by Dr. Harry R. Jacobson, vice chancellor for Health Affairs, decided to start its own program.

"I'm very enthusiastic about the Medical Scholars Program," said Oates, who chairs the program's steering committee. "It provides an alternative entry point for medical students to do research training. Many

"The program at Vanderbilt is as successful as any in the United States. It's become a part of the Vanderbilt medical student culture. Students who have enjoyed their experience pass it down to the classmates who follow them."

- Dr. John A. Oates Jr., Thomas F. Frist Professor of Medicine and Professor of Pharmacology

develop an interest after entering medical school and the program provides them the opportunity for the interest to be nurtured.

"The program at Vanderbilt is as successful as any in the United States. It's become a part of the Vanderbilt medical student culture. Students who have enjoyed their experience pass it down to the classmates who follow them."

Dr. Steven G. Gabbe, dean of VUSM, agrees.

"For many students it's the opportunity that launches them into a career in research in the future," Gabbe said. "It's an excellent chance to take a full year and devote it to research."

Morrow said the experience gained by those in the program has also helped Vanderbilt medical students obtain the highest quality resident slots at Vanderbilt and other institutions.

Brian Lishawa, a current Medical Scholar in between his third and fourth year of medical school, spent the first four months of the program in Ecuador. An

important component of the Medical Scholars Program is to try to offer a clinical experience for interested students in addition to exploring a scientific problem. He concentrated on learning how to speak Spanish more fluently the first six weeks, then worked for another six weeks in a mission hospital, where, among many things, he saw patients with HIV and TB. For the last portion of his four months, he worked in Hospital Vos Andes Shell, a hospital in the Amazon jungle where he did everything from delivering babies to treating poisonous snake bites. "It was the greatest medical exposure I have had," he said.

Lishawa is currently working with Dr. David W. Haas, associate professor of Medicine, at the Comprehensive Care Center, studying the role of P-glycoprotein in HIV infection and believes that his earlier clinical experience has greatly enhanced his interest in HIV infection and treatment.

"This program has most definitely altered my career," Lishawa said. "It's given me a real-life experience of seeing doctors working in a mission hospital in the jungle, almost exactly what I want to do with my career. My spiritual calling to this sort of mission work has been amplified throughout this year."

Lishawa said he wasn't ready to make a career decision at the end of his third year.

"The program came at a good time for me. It gave me more time to explore."

Last year, third-year students Jeff Smithers and Joshua Denny worked with Dr. W. Anderson Spickard III, assistant professor of Medicine, designing online educational curricula for students.

"Our project began with the desire of Dr. Spickard to have better ways of finding curriculum content and answering questions such as 'where is genetics taught' or finding out what a student in the third year knows about congestive heart failure," Denny said. "The idea was that he, as a teacher, could tailor his lectures to what his students already knew."

Dr. Randolph A. Miller, professor and chair of Biomedical Informatics, mentored the informatics portion of the research, which is intended to improve the integration of the curriculum, to identify overlaps, and to improve access for all students.

"Our goals were to create a state-of-the-art search engine that would 'understand' documents such as lecture handouts and PowerPoint slides," Denny said. "When it encounters the acronym 'CHF' in a document, it tries to determine whether you are talking about congestive heart failure, Crimean hemorrhagic fever or congenital hepatic fibrosis. It also sees synonyms such as 'Wilson's Disease' and 'hepatolenticular degeneration' as the same thing. We compared this to a concept identifier produced by the National Library of Medicine and showed it performed better on our documents."

The students then created a Web site to access and search the curriculum based on this search engine. It was tested with the Anatomy and Histology courses and Denny and Smithers are currently studying user interactions and opinions of the Web site.

"I gained a new career from the project," Denny said. "Long interested in research, I've now decided to focus my research energies in medical informatics after completing an internal medicine residency. I love teaching, mentoring and developing students."

Morrow said he hopes the program will grow to 15 students next year. "Depending on the funding we can obtain, the sky can be the limit," he said.

For more information, contact Morrow at jason.morrow@vanderbilt.edu. ▼



Ryan Grippo is first Chapman scholar

Ryan Grippo, a first-year medical student who is the third member of his family to attend Vanderbilt University School of Medicine, has been named the first Dean John E. Chapman scholar, receiving full tuition to VUSM for the next four years.

Grippo, a graduate of The Pennsylvania State University, had visited Vanderbilt University School of Medicine several times more than the average medical school applicant by the time he turned in his early decision application to become a member of the Class of 2006.

His oldest brother, Jim, now in his first year of radiology residency at the University of Florida, was a member of the Class of 2001 and his middle brother, Dan, is currently a member of the fourth-year class. Grippo was picked for the scholarship based on a combination of merit and need.

The Chapman scholarship was established to honor the former dean when he stepped down from the position after 25 years. Chapman graduated more than 3,317 of the school's alumni. He has since assumed the role of associate vice chancellor for Medical Alumni Affairs.

When all pledges are completed there will be two Chapman scholars every four years. The scholarship received pledges from alumni, friends throughout the United States, and the Vanderbilt Board of Trust, led by Monroe Carell Jr., said Sarah P. Reynolds, director of VUSM Development & Alumni Relations.

"We received numerous letters from grateful alumni all over the country saying how pleased they were to be a part of this scholarship, and how glad they are to have been part of Dean Chapman's legacy here at Vanderbilt," Reynolds said.

Grippo, a native of Clearfield, Pa., said the phone call telling him that he had been awarded the scholarship left him at a loss for words.

"I was overjoyed, humbled and honored, all at the same time," Grippo said. "I'm humbled to receive such an awesome gift. But to be the first Chapman Scholar is an even greater honor.

"Dean Chapman is tremendously dedicated and has contributed so much to Vanderbilt University School of Medicine," he said. "He fostered a

great learning environment and motivated students to work to their potential. He's a very sincere person, very nice and kind."

Chapman said that Grippo is an excellent choice for the scholarship bearing his name.

"Ryan expresses the many attributes, both professionally as well as personally, of the holder of the Chapman scholarship," he said. "This will serve not only the interests of the scholarship holder, but through his participation, the interests of all medical students. The naming of a scholarship such as this one provides opportunity through precept."

Dr. Steven G. Gabbe, Dean of VUSM, said the scholarship is important to the medical school.

"I can't think of anything more important than recognizing Dean Chapman's contributions to medical education at Vanderbilt." - NANCY HUMPHREY



DANA JOHNSON

Hickson named associate dean for Vanderbilt patient advocacy

Dr. Gerald B. Hickson, professor of Pediatrics, has been named associate dean for Clinical Affairs and director of the Vanderbilt Center for Patient and Professional Advocacy.

The center will create educational programs for faculty, house staff, and medical students around core competencies such as establishing and maintaining rapport with patients and families. It will also enhance communication with other health care team members and identify ways to involve patients in making health care as safe as possible.

Hickson and his team will work to identify sources of dissatisfaction for patients in their medical experiences and work to reduce unsatisfactory care experiences.

"I am excited about Vanderbilt's commitment to thinking critically about how we redesign the nature of our patient care systems

by taking advantage of what patients are telling us and providing feedback to the entire patient care team," Hickson said.

Working with the Patient Complaint Monitoring Committee, Hickson will concentrate on intervention strategies with colleagues and service units throughout the Medical Center.

The new center will also focus on collaboration with Dr. James W. Pichert, Dr. F. Andrew Gaffney, Dr. Robert H. Ossoff, and the risk management staff to conduct root cause analysis of risk management claims to generate process improvement initiatives.

"Making our medical center the safest in the country is one of our major objectives," said Dr. Steven G. Gabbe, dean of the School of Medicine. "Dr. Hickson is nationally recognized for the unique programs he has developed to accomplish this."

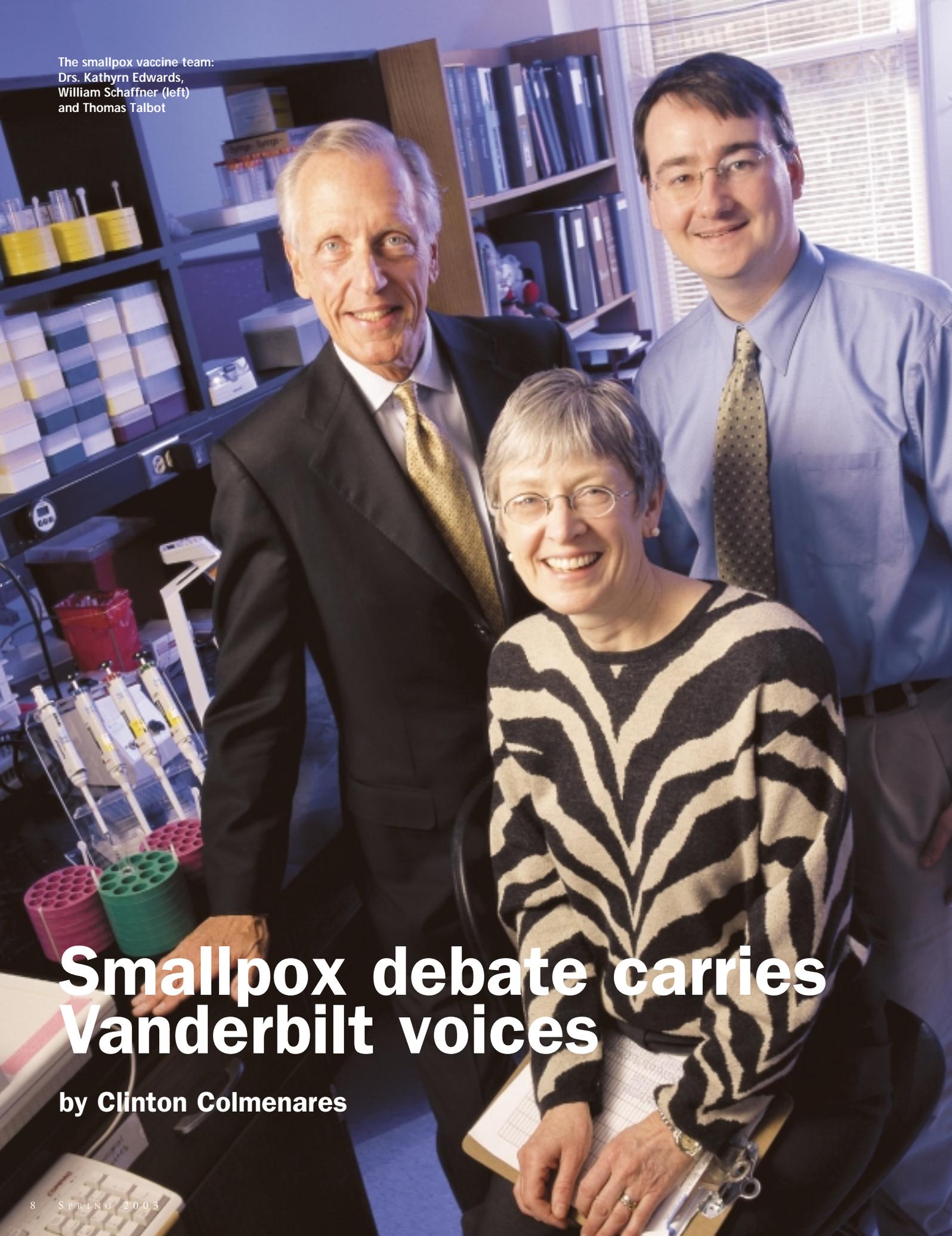
Hickson has gained national attention in

the area of patient safety and malpractice risk. He led a team of VUMC researchers in establishing a basis for closer measurement of physicians' risk for malpractice suits.

The team study, which appeared in the June 12 issue of the *Journal of the American Medical Association*, points the way to interventions that may help lower doctors' risk of suits.

The study suggests that inability to establish rapport with patients is a root cause of increased risk of malpractice suits. In all, the study identifies three factors that together allow new accuracy in the prediction of malpractice suits: unsolicited patient complaints, higher clinical work volumes, and whether the practice is surgical (higher risk for suits) or non-surgical (lower risk for suits).

- JON COOMER AND PAUL GOVERN



The smallpox vaccine team:
Drs. Kathryn Edwards,
William Schaffner (left)
and Thomas Talbot

Smallpox debate carries Vanderbilt voices

by Clinton Colmenares

An ominous amalgam of words has crept into the American lexicon with a foreboding shadow the likes of which hasn't been seen since the Cold War

Bioterrorism. Threat. Danger. Risk. Vaccine. Smallpox. Perspective. Orange alert.

As in: the threat of bioterrorism is high, yet the risk of being hit by weaponized smallpox remains lower than the danger of the vaccine. That, of course, depends on your perspective.

The defense against this offensive affliction, its reality still considered low, is the smallpox vaccine – powerful prevention with an equally fearsome potential for side effects, including death in one in a million people who get it – and a decades-old plan of implementation that rid the world of the naturally occurring scourge in 1978.

Late in 2002 and early this year, the public debate, stoked and prodded by the national media, escalated over whether or not to unleash the vaccine from its 30-year-long slumber. It has been the most visible public health debate about a disease that has yet to be seen. Yet in the clamor, Americans are assured of scientific objectivity in the form of three voices belonging to Vanderbilt physicians.

Over the past year, Drs. William Schaffner, Kathryn M. Edwards and Tom Talbot have put in countless hours behind the scenes to help arrive at answers for other scientists. They stood in front of cameras and talked to reporters, helping the public understand the issues being batted back and forth – who should be vaccinated, when, what will happen to them, and why do we want to do this?

Smallpox debate

Edwards, professor of Pediatrics and vice chair for Clinical Research in the Department of Pediatrics, is principal investigator of two National Institutes of Health-sponsored smallpox vaccine clinical trials. Two hundred volunteers rolled up their sleeves as Edwards and her research team doled out the vaccine, 15 needle pricks at a time, for the first time in America since 1972.

When the vaccine company Aventis Pasteur discovered a forgotten, frozen batch of the vaccine in March 2002, the NIH left it to Edwards, who has an NIH grant to lead one of its Vaccine Trial Units, to determine if it was still good. She led Vanderbilt and four other medical centers in a clinical trial that compared the Aventis Pasteur batch with Dryvax, a vaccine the CDC knew to be effective. Then she led another study, with two other universities, to determine if the recently found vaccine was effective at one-to-five and one-to-ten dilutions (it was). In all, more than 700 volunteers at all the centers involved in both trials under Edwards' direction received the vaccine.

Edwards also participates in the CDC's Center for Immunization Safety Assessment, a national network of vaccine experts who will act as smallpox disease and vaccine advisors to physicians in their region.

One of the side effects of the smallpox vaccine, which creates a live, active viral infection that swells and oozes puss, is auto-innoculation, the spreading of that infection to other parts of the body. Talbot,

“Risk is a matter of perception. It's very personal. If I lived in New York and saw the twin towers fall, the risk would be very real to me.”

a fellow in Infectious Diseases, was “looking for a project” when Edwards was beginning her work. He oversaw a study in the second clinical trial to find out the likelihood of this self-contamination by swabbing study volunteers' fingertips to see if they “pawed” their bandage and picked up any infection. An early analysis of the data is very reassuring – vaccinia, the live virus in the smallpox vaccine, was recovered from less than 1 percent of samples from the outside of the bandages and from no samples from volunteers' hands. Full results of the trials are still pending.

While the media speculated about the president's vaccine policy, Schaffner, professor and chairman of Preventive Medicine, sat in on meetings where the policy's recommendations were being hammered out as a member of the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

In the 1960s as a young U.S. Public Health Service officer, Schaffner was taken to a smallpox ward in India, where men, women and children were covered in the characteristic red bumps, in various stages of the disease. He was also part of the last major outbreak in America when, as a boy in 1947, he lined up on a sidewalk as one of more than 6 million in New York City to get the vaccine; the site of the last reported smallpox outbreak in the United States, and the last to cause a death since 1939.

In January, President Bush announced his three-part plan, which went beyond the ACIP's recommendation: first, public health and selected hospital workers would get the vaccine, then emergency responders and police and fire personnel and all other health

care workers, then, next year, anyone in the general public who wants it can receive it.

The media tenor hit double forte. A *Washington Post* article listed Vanderbilt, and Edwards, as a leading study site. Network cameras swooped down on Vanderbilt. Talbot discussed his experiences live, from a Vanderbilt studio, with Katie Couric. Edwards appeared on ABC's “World News Tonight.” CBS aired tape of all three doctors. Study volunteers recounted their experiences, good and bad. News circled the globe.

Meanwhile, Vanderbilt University Hospital decided to delay participation in “the smallpox vaccine plan.” No nurses or doctors would receive the vaccine outside of Edwards' and Talbot's ongoing trials. Did this mean our scientists knew something nobody else knew? No. But the media again came calling.

“The thing that stops you from doing this is the complexity of the smallpox vaccine, which is not a safe vaccine,” Schaffner told *USA Today*. “If we had a smallpox vaccine that was akin to our routine tetanus vaccine, we would have been finished by now. We would have vaccinated the country.”

And the risk of getting smallpox remains very low. Yet, Edwards told PBS, “risk is a matter of perception. It's very personal. If I lived in New York and saw the twin towers fall, the risk would be very real to me.”

The experience with the clinical trials enabled Vanderbilt to participate in the national dialogue and national education, “and it was very important that we clearly outlined the risks associated with the vaccine, without being alarmist,” Edwards said. Reporters were able to spend time

The vaccine is administered by 15 shallow skin perforations.



DANNY JOHNSON

observing how carefully Vanderbilt performed the trials.

But it also meant being able to excite nurses and young physicians like Talbot in the complex, yet rewarding field of clinical research, she said. "It's far easier to get 160 mice to do what you want than to try to get 160 people to do what you want them to do and follow up with them and record their outcomes," she said. "This experience brought a clearer understanding of what clinical research is for these young investigators."

And, she says, the experience brought about the best of Vanderbilt, a tradition of working across disciplines – she from Pediatric Infectious Diseases, Talbot from Adult Infectious Diseases and Schaffner from Preventive Medicine.

In March, Talbot began Vanderbilt's third smallpox vaccine trial. This NIH study is to determine the type of bandage that would best cover the vaccine site and prevent the spread of infection, while promoting healing. One finding of the second trial was that the double-occlusive bandage that was used kept the vaccine site moist and may have prolonged healing. Talbot's study will compare three bandage types: standard gauze bandages now used on non-health care workers after vaccination, a single occlusive bandage and a larger hydropolymer bandage often used to cover other skin wounds.

Some people have criticized the amount spent on biodefense research. To that, Edwards says, "by knowing we can dilute the vaccine and have enough for the entire country, and knowing how to handle the vaccine and the people we vaccinate, we have contributed to the protection of the nation." 

The threat is real

BY JERRY JONES

Vanderbilt Medical Center faculty and staff have quickly responded to new challenges in treating patients affected by potential terrorist acts, including the formation of the National Center for Emergency Preparedness (NCEP) at the Vanderbilt University School of Nursing.

The NCEP, which will utilize Vanderbilt University Medical Center's plan as a model to train other emergency officials, is the brainchild of Colleen Conway-Welch, Ph.D., dean of the Vanderbilt School of Nursing. Welch said her experience participating in the National Health Professionals Preparedness Consortium and the International Nursing Coalition for Mass Casualty Education prompted the establishment of the NCEP.

"Our experience over the last two years has shown that there is a lack of a comprehensive program and environment that can bring all of the various agencies together and design a systematic response to large scale emergencies," she explained. "The National Center for Emergency Preparedness will do just that – we will provide leadership by developing, implementing, and evaluating technological capabilities, and creating an interdisciplinary approach to disasters by involving all aspects of health care and emergency response personnel."

In addition to the establishment of the NCEP, numerous training classes have been held so that health care providers in the Vanderbilt community can quickly spot potential bioterrorist activities.

"The threat is real," said Dr. Ian M. Jones, assistant professor of Emergency Medicine and director of Vanderbilt's Emergency Department.

Jones briefed the doctors on what to expect with clinical presentations for anthrax, plague, smallpox, viral hemorrhagic fevers and botulism, and outlined treatment procedures for each of these diseases.

In other training, Vanderbilt Emergency Department faculty and staff have been donning respirators and hazardous materials response suits as part of an eight-hour training class designed to prepare them to handle patients who could present from a biological, radiation or chemical accident or act of terrorism.

Vanderbilt Medical Center also hosted a class on Emergency Medical Service Operations and Planning for Weapons of Mass Destruction, offered by Texas A & M University's National Emergency Response and Rescue Training Center (NERRTC), and is part of the National Domestic Preparedness Consortium's curricula to improve the abilities of jurisdictions to combat domestic terrorism.

VUMC's disaster committee has tested a new sub plan of the hospital's disaster plan that involves responding to disasters involving biological agents. In the largest drill ever held by the Medical Center, more than 150 participants went through the motions of treating a community-wide exposure to anthrax. The Emergency Operations Center was activated and from there, command staff directed the functions of faculty and staff as patients began arriving for treatment.





the top 10

What will *it* take ?

10 by '10.

It's a catchy phrase, but can Vanderbilt become a top 10 medical school and a top 10 hospital by 2010? And does it really matter?

Top leaders at Vanderbilt say it's possible, especially after the medical school's leap from 16th to 14th place in the 2003 *U.S. News and World Report* rankings. But they are also quick to point out that Vanderbilt is already one of the country's leading programs with a foundation of academic, clinical and research excellence. To see it in print would merely be a verification of what the best and brightest minds here already know.

Vanderbilt Medicine devotes most of this issue to exploring the programs and people behind those programs that can make the ascent possible, by 2010, or as long as it takes.

10
the top

The growth of a thriving research enterprise is the engine that drives the progress of Vanderbilt University Medical Center in its push to be a top 10 institution, key leaders say.

That engine continues to demonstrate its might.

growing a research enterprise

by
Wayne Wood
and
Cynthia Manley

A strategic plan launched in 1998 forecast \$320 million for research by 2008. As of 2002, \$238 million had been garnered, putting Vanderbilt two years ahead of schedule, said Dr. Harry R. Jacobson, vice chancellor for Health Affairs. "This is truly phenomenal. I'm expecting \$400 million to \$500 million by 2008," he added.

This progress made Vanderbilt the third fastest growing program in the United States in terms of NIH funding growth, which grew 18.19 percent between 1999 and 2001. Only Baylor and the University of California at San Francisco were ahead of Vanderbilt, and only slightly. Vanderbilt ranked 19th out of 122 schools of medicine in NIH funding, and the

momentum may even be picking up; in 2002 NIH funding at VUMC rose 28 percent from the previous year.

This realistic goal of \$500 million in funding in five years contrasts with funding of less than \$150 million as recently as 1998.

"We need to make our research enterprise the best it can be," Jacobson said.

As Vanderbilt strives to become a top 10 institution, one question that naturally arises is: Top 10 according to whom? Two common ways to look for such validation are the rankings of NIH funding and the annual *U.S. News and World Report* rankings.

These two rankings are likely related, said Dr. Alastair J. J. Wood, associate vice chancellor for Research at VUMC.





“These are a lot more linked than we recognize. The impact of our research has a huge impact on our rank,” Wood said. The reason for this is that a substantial portion of the *U.S. News* ranking relies on peer rankings of institutional reputation, and such reputations are heavily influenced by NIH research funding.

In a similar way, research is a great contributor to the patient care and educational missions of VUMC. Students would rather be taught by professors who are engaged in making discoveries, and patients seek out medical centers where the latest care is available, Wood said.

“An exceptionally important commitment”

Dr. Eric G. Neilson, Hugh J. Morgan Professor of Medicine and chair of the department of Medicine, which has under its umbrella divisions with more than 45 percent of the NIH funding at VUMC, also pointed to the interrelatedness of the Medical Center’s missions and the research enterprise’s role as the keystone of the institution.

“It’s an essential part of our being in this Medical Center,” he said. “All of the medical school’s departments need to engage as research intensive entities. We can’t really sustain our status as a great institution until all of us are doing research that

answers imperative clinical questions. It’s an exceptionally important commitment.”

Noting that last year, for the first time, Vanderbilt University Hospital achieved the top-ranked “Honor Roll” status among American medical institutions by *U.S. News*, Neilson said, “We didn’t get to be an Honor Roll hospital only because we have great people running the place. There are lots of well-run hospitals in our peer group. We got there because we have a national reputation for translating research into patient care. And this allows us to attract great faculty, students, house staff, and fellows.”

This research-driven growth in all missions of the Medical Center will require a

growth in research space and facilities. Currently, grant dollars and research productivity are growing faster than space, Wood said.

“My No. 1 priority is sufficient research space to grow,” Jacobson said in his speech at the fall faculty meeting in 2002.

“In all, about 1 million square feet of new or remodeled laboratory space has been put in play since 1984,” noted Dr. Daryl K. Granner, Joe C. Davis Professor of Biomedical Sciences

total funding from the National Cancer Institute was less than \$8 million. “This year, that figure exceeds \$42 million,” he said. “In the latest rankings of institutions according to NCI grant funding, we were listed at No. 13, and we are likely to be higher in the next ranking. Ten years ago, we weren’t even on the list (of the top 40).”

Moses noted several large NCI-funded projects that have significantly pushed

risky for public support and establish important shared resources. After data are developed and matured, the research has then been proposed to the NCI for competitive grants, often with great success, Moses said.

Keeping collegial atmosphere is key

As the size of the institution grows, a great challenge for the future will be to keep the relations among faculty members that are often cited as a key element in the culture at Vanderbilt.

“This is a collegial place to work,” Wood said. “That allows people to take a multi-investigator and multi-disciplinary approach to problems.”

“I am not a fan of specific goals or objectives, other than to be as good as we can be,” Granner said. “If we do this, the other things, including rankings, will take care of themselves. All in all [VUMC’s recent growth in research] has been a spectacular success story and this accomplishment is recognized by our peers and institutions around the U.S. and world.”

“There is no reason why Vanderbilt shouldn’t continue to grow its role in discovery,” Neilson said. “We live on a perch where we can look for better and more humane treatments through our understanding of disease and best evidence for patient care.

“And while rankings, funding, and recruitment are all important pieces of the whole,” Neilson said, “it is the high goal of institutions like ours to add more discernment to science and to enhance the quality of human life.”

“Research is what we do to make the medical profession better, and it’s the place where we try to do something for human health beyond the individual patient. Our science and what we contribute to health care is what sets us apart. It’s all about understanding life through disease.” 🍌

“Research is what we do to make the medical profession better, and it’s the place where we try to do something for human health beyond the individual patient.” – Dr. Eric G. Neilson

and director of the Vanderbilt Diabetes Center. “That space has been essential. Without it the VUMC research enterprise could not have grown as it has.

“We have to continue growing at the pace achieved in the past 20 years if we aspire to be among the elite research-based institutions,” Granner said. “We have to have institutional support to be bold and innovative. And we have to build more high quality research space soon.”

Funding to attract the best faculty may be as important as funding to expand research space.

“In recruiting, endowed chairs are a major attraction to a candidate,” Wood noted.

“We have invested in core resources and we will be able to leverage these to dramatically increase our success,” Wood said, adding, “We need more space and the financial stability to get more space and fund world-class investigators.”

Growth of Cancer Center provides example

One important example of the Medical Center’s growth in competitive research funding is the Vanderbilt-Ingram Cancer Center. When the Center was created in 1993, its director Dr. Harold Moses said,

Vanderbilt-Ingram’s total NCI funding higher. These include the Southern Community Cohort Study, a landmark initiative to better understand and address the racial and ethnic disparities in cancer incidence and mortality, which has received \$22 million in support from the NCI. In addition, Vanderbilt-Ingram investigators have been awarded two Specialized Programs of Research Excellence grants, in lung and gastrointestinal cancer, which bring between \$13 million and \$14 million over five years. A third SPORE, in breast cancer, is expected to be funded soon with a similar level of support. In addition, Vanderbilt-Ingram’s Cancer Center Support Grant from the NCI provides \$15 million over five years.

Moses noted that while many grant dollars are “credited” to individual academic departments, the strong collaborations involving cancer center members across departmental lines make the institution particularly competitive for large NCI grants like the SPOREs.

Vanderbilt-Ingram’s increased ability to compete for large research grants from the NCI is owed in large measure to its success at obtaining philanthropic gifts to fund innovative pilot research considered too



**Richard Caprioli, Ph.D., Stanley Cohen Professor of Biochemistry
(joined the faculty in 1998)**

Q. How is the collaborative culture here different from other institutions?

A. In some places such collaboration is not easy and not encouraged, although rarely forbidden. In other places it is allowed in that there are no barriers. At Vanderbilt, it is much, much better. It is a mindset that this is how research is really done – groups of faculty, small or large, combining skills and expertise to solve a problem. It is expected. Perhaps, at some significant level, it is one important measure of success.



**Heidi E. Hamm, Ph. D., Earl W. Sutherland Jr. Chair of Pharmacology
(joined the faculty in 2000)**

Q. Why did you decide to come to Vanderbilt?

A. I was having a wonderful time doing research in G protein signaling at Northwestern University. It really wasn't an ambition of mine to be a chair because I enjoyed the ability to spend most time focusing on research. However, Vanderbilt is an exciting place to be. The Department of Pharmacology has a great history and is currently one of the top Pharmacology Departments in the country. What was particularly compelling is that it has a chance to grow. That makes it a really good time for a department to take stock, further strengthen its strengths, and embark on new directions. Vanderbilt is in the middle of setting itself up for the next century and it's a huge challenge to be a participant in doing that. What really excited me most is the wonderfully interactive environment that Vanderbilt has, and also the visionary leadership, and the sense that Vanderbilt is on a trajectory and it's going somewhere."



Pat R. Levitt, Ph. D., professor of Pharmacology; director of the John F. Kennedy Center for Research on Human Development (joined the faculty in 2002)

Q. How specifically has the Vanderbilt culture enhanced your research?

A. My research is focused on understanding the fundamental principles that organize circuits during development so I need to be able to image that circuitry as it's forming. There are facilities at Vanderbilt that are already here that allow me to do that and they're getting better all the time. I need to be able to manipulate the systems by doing complex sophisticated genetics, and we can do that here. I need to understand the functional outcome, and I'm not trained in neurobehavior, but there are people here who understand how to investigate it.

The top tier and

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Medical school and hospital rankings are merely a verification of what's already known – that a particular school or hospital has a well-funded and vital research program, provides top-notch education, and that patients are receiving the highest quality care.

Last year for the first time in the 13-year history of the nation's best hospital survey in *U.S. News and World Report* Vanderbilt University Hospital and The Vanderbilt Clinic scored in the top tier. Vanderbilt was among 17 hospitals on this year's honor roll and the only one added to last year's list of 16 medical centers. It was also the only medical center in Tennessee on the list. In December 2002, for the third year in a row, VUH was also recognized in Solucient's 100 Top Hospitals National Benchmarks for Success study. Vanderbilt University School of Medicine ranked 14th of 50 top medical schools.

Clinical excellence is part of the reason Vanderbilt is moving up in the rankings. Among those areas responsible for high rankings now, and almost certainly in the future, are diabetes, cancer and pediatrics.

DIABETES

Seamless. That's the type of high quality care that Vanderbilt University Medical Center will soon provide patients with diabetes. From the day of diagnosis throughout life, for routine care and specialty care, patients with diabetes will soon be able to receive care at Vanderbilt in a single geographic site.

The Vanderbilt-Eskind Diabetes Clinic, in design, will allow patients to see their respected specialists as well as consulting sub-specialists such as ophthalmologists, orthopaedists, nephrologists and neurologists. Currently, Vanderbilt's diabetes program ranks 17th out of 50 institutions in the hormonal disorders category of the 2002 *U.S. News and World Report* Best Hospitals survey.

"It's a social need and an ethical responsibility of a major medical center to offer a place like this," said Dr. Daryl K. Granner, Joe C. Davis Professor of Biomedical Science and director of the Vanderbilt Diabetes Center, adding that there are only about three medical centers in the country offering the comprehensive services to be offered in the Vanderbilt-Eskind Diabetes Clinic. "This is absolutely novel, it's tremendous in every respect, for clinical research and translational research, but most importantly, for what it will offer the patient."

The complications of diabetes, which are related to duration-of-disease and quality of control, tend to occur 15 to 20 years after the onset of diabetes, Granner said.

by Nancy Humphrey

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“These are very sophisticated problems and a major medical center like this has to be situated to provide the best care.

“One of the things that happens in diabetes is that there are different philosophies of care. A family may have a 4-year-old child who is taken care of by one physician for 14 years, and then they may have to change locations and go to another doctor. That can be very traumatic. We want to make their change to the adult clinic as seamless as possible.”

There are about 14,000 adult and 4,400 pediatric patient visits each year in the current diabetes clinics, some coming from as far as Louisiana, Southern Indiana, Kentucky and Alabama. There are 40,000 patient visits projected for the new facilities.

Dr. William E. Russell, associate professor of Pediatrics and Cell and Developmental Biology, is one of only six board-certified pediatric endocrinologists in the region. All six of them are at Vanderbilt.

Vanderbilt offers the area’s only American Diabetes Association-recognized diabetes education program for children and adolescents, an important component of pediatric diabetes care at Vanderbilt. The program goes far beyond the minimal criteria that the ADA has established for how education should be provided, particularly for the newly diagnosed.

“Diabetes education is often done in a haphazard way that doesn’t take into

consideration the special circumstances and educational level of individual families and the evolving development stages of children or adolescents with diabetes,” Russell said. “Here we have a very structured program, done over four or five visits. We use a team approach with pediatric endocrinologists, nurses and nurse practitioners who are CDEs (Certified Diabetes Educators), dietitians, a social worker and a child life specialist.”

Dr. Stephen N. Davis, Rudolph H. Kampmeier Professor of Medicine, believes that the diabetes center’s vision for the future is exciting.

“Our goal in diabetes is not to be 10 by ’10 but 1 by ’10. Clinically we want to develop the triple thrust of the medical school – excellence in patient care, teaching and research, and we plan to bring all three together in a seamless one-stop shopping experience for our patients. Diabetes is a very complicated, longitudinal disease which encompasses more than just regulating blood glucose, general cardiovascular and vascular risk reduction,” he said.

Davis said that the multi-system disorder could require up to 14 sub-specialists.

“Many patients come here and seek help from a variety of sub-specialists. We

want to make it much more convenient for our patients, so they can come and see their diabetes doctor, then see their sub-specialists too,” he said. We also will concentrate more on teaching our medical students, nursing students and residents about diabetes and improving knowledge about diabetes to doctors outside of Vanderbilt. We want to use our new center to improve our epidemiologic and outcomes studies and we want to partner with Meharry Medical College to ask important questions about why there are disparities in diabetes in minority populations.”

CANCER

Between 1997 and 2001, the Vanderbilt-Ingram Cancer Center saw a 59 percent growth in newly diagnosed cancer patients. Genitourinary cancers (cancers of the prostate, testis, bladder and kidney) grew 90 percent, from 338 cases to 642; 331 of those were prostate cancer cases, putting Vanderbilt in the top three or four cancer centers in terms of volume of new prostate cancer cases. Since 1997, cancer clinic volumes have grown by about 7.25 percent each year, from just under 30,000 per year to more than 40,000 per year. Vanderbilt’s



DANA JOHNSON

Jaxson Fay, 4, recently diagnosed with type 1 diabetes, practices checking blood sugar on Chuck, the patient puppet. Working with Jaxson is Leslie Grisson, a Child Life Specialist.

cancer program is ranked 27th out of 50 programs in the cancer category of the 2002 nation's Best Hospitals survey in *U.S. News and World Report*.

The amount and ease of collaboration at Vanderbilt is a strong factor in Vanderbilt's cancer rankings, said Dr. Mace L. Rothenberg, professor of Medicine, and Ingram Professor of Cancer Research and director of Phase I Drug Development at VICC.

"What the Vanderbilt-Ingram Cancer Center does as well as, if not better than, any other cancer center is to provide an environment where true collaboration between the basic scientists and the clinicians can flourish," Rothenberg said, adding that the best illustration of this collaboration is VICC's SPORE (Specialized Program of Research Excellence) grants, which illustrate truly innovative and cutting-edge collaborative translational research. VICC has SPORES in lung and gastrointestinal cancer and anticipates funding of a SPORE in breast cancer, making it one of only a half dozen centers with three SPORES.

Also important is VICC's Phase I drug development program, which has recently been recognized by the NCI as one of the best in the country for conducting the first human trials of the latest cancer drugs.

"To be 10 by '10 is not rocket science. You have to have great clinical care and you have to have great research and you have to marry those two through translational research," said Dr. David Johnson, Cornelius Abernathy Craig Chair of Oncology, professor of Medicine, director of the division of hematology-oncology, and deputy director of the VICC. "A lot of people talk about it. Very few places actually do it. I think Vanderbilt is one of those that does it as well if not better than anywhere else."

Johnson noted the strength of Vanderbilt's cancer physicians, citing Drs. Bruce J. Roth and Jeffrey A. Sosman as just two examples of strategic recruitment leading to significant growth in patient volume.

"Bruce Roth is one of the very best in urologic oncology, and our numbers have skyrocketed in that area. We've recruited Jeff Sosman, one of the very best in melanoma, and our numbers (of patients with melanomas) have started to climb. That's an area of great potential growth because the incidence of melanoma is increasing, and we offer something that no one else in the community can offer."

Roth, Paul V. Hamilton, M.D. and Virginia E. Howd Professor of Urologic Oncology, professor of Medicine and

Urologic Surgery, and co-director of VICC's genitourinary cancer program, said that it's also essential that a cancer center have enough doctors to see the patients.

"If you don't have the patients to translate your exciting research findings into clinical advances, you're only doing half the job. That's not comprehensive," Roth said, adding that Vanderbilt's strengths are the Comprehensive Cancer Center designation from the National Cancer Institute and rapidly increasing level of NCI funding.

Roth also cited the vision of Vanderbilt's leadership to invest money in people and programs, even in tough economic times.

"You have to have sufficient reserves to fight through the tough times, and you have to be willing to spend it. That's what sets apart the truly great institutions and those that are just keeping up. No one advances to the next level by having the biggest savings account. Those that stop developing during tough times will fall behind."

PEDIATRICS

Pediatrics at Vanderbilt Children's Hospital will most likely take a huge leap in the rankings after the fall of 2003 when pediatric services are consolidated under one roof at the new Monroe Carell Jr. Children's Hospital at Vanderbilt. Vanderbilt was not ranked in the list of 23 top pediatrics programs in the *U.S. News and World Report* Best Hospitals rankings, but top administrators believe it's only a matter of time.

The 565,000-square-foot building consists of nine floors and 206 inpatient

DANA JOHNSON

Dr. Mace Rothenberg examines Edward McBride of Louisville, Ky.



Clinical excellence is part of the reason Vanderbilt is moving up in the rankings. Among those areas responsible for high rankings now, and almost certainly in the future, are diabetes, cancer and pediatrics.

Pediatrics at Vanderbilt Children's Hospital will most likely take a huge leap in the rankings after the fall of 2003 when pediatric services are consolidated under one roof at the new Monroe Carell Jr. Children's Hospital at Vanderbilt.

beds and shelved space for an additional 90,000 square feet for outpatient services.

"Our programs for children's health are comparable academically and clinically to the Children's Hospital of Philadelphia (ranked second) and Children's Hospital of Cincinnati (ranked 9th), all of which are well reputed but don't have programmatically what we have," said Dr. Jayant K. Deshpande, professor of Anesthesiology and Pediatrics and Medical Director of Process Management and Improvement for the new Children's Hospital. "What they do have is a consolidated physical plant and a children's foundation, so they can support larger programs, so it's often a matter of numbers. As we move into the new building, we will also have a recognized physical facility for our pediatric programs that is comparable to the other (nationally ranked) children's hospitals."

In 2002 there were 52,579 total patient days (one patient per room per day) at Vanderbilt Children's Hospital and 30,106 patient visits in the Pediatric Emergency Room. Patient days are expected to increase to 59,692 next year. The emergency department is expected to grow about 20 percent, to more than 36,000 visits next year.

Deshpande said that the solid research foundation at VCH combined with the best patient care, makes Vanderbilt's pediatrics program exceptional.

"If we know how abnormal heart beats are caused, we know how they are better treated. If we understand the mechanisms of why the heart functions abnormally, then we can focus on drugs or other therapies. Understanding the mechanisms or genetic cause of Cystic Fibrosis, and the mechanisms by which CF produces lung injury, allows us

to focus medication and other treatments specifically, rather than just using a blanket treatment," he said.

Vanderbilt also has excellent clinical research, he said, citing the eating disorders program as an example.

"We're not only keeping these patients alive, but we're also getting them back to school and into society," Deshpande said. "Just preventing the illness isn't enough. We're committed to not only the research aspect and creating new knowledge but also how we care for patients. We're also committed to analyzing how we do things now, in order to devise ways to do things better in the years ahead."

Pediatric urologic surgery is one of the areas of excellence in Vanderbilt pediatrics. The division, established 12 years ago, has grown into a nationally recognized division in patient care and research. Patients are seen promptly and there are satellite clinics in Chattanooga and Jackson where patients from those areas are seen.

Dr. John W. Brock III, professor of Pediatric Urologic Surgery, director of that division, and surgeon-in-chief for Vanderbilt Children's Hospital, said part of his goal as surgeon-in-chief is to take that model to every other pediatric surgery service in VCH. Vanderbilt has the only full-service pediatric surgical service in the area, offering cardiac surgery, general surgery, urological surgery, otolaryngology, plastic surgery, neurosurgery and oral surgery.

"My grand 5- to 10-year plan is growth in every single service," Brock said, adding that although every pediatric surgical service



DANA JOHNSON

Dr. John W. Brock III examines 3-month-old Gregory Elijah Robinson of Nashville.

at Vanderbilt is considered excellent, there are capacity issues.

There are nearly 8,000 pediatric surgery patients seen in all the specialties at Vanderbilt. Patients come mostly from Middle Tennessee, but also from Tennessee, Kentucky and Alabama. Patients come to the pediatric urology surgery practice from all over the country and to the fetal surgery program from all over the world. Surgeons work in seven operating rooms in Vanderbilt University Hospital. That space will grow immediately to 12 in the new hospital, eventually growing to 16.

"It's unacceptable to have parents and children waiting for extended periods of time to see a surgical sub-specialist. As a parent, that would be unacceptable to me. We have the best people, and patients should have access to them. There isn't much we don't do – pediatric liver transplantation and robotics are about it."

Brock said with the hiring of new faculty and the new facility about 10,000 surgeries will be performed by the pediatric surgical service in 2004, and 12,000 in 2005. (v)

Vanderbilt congeniality

enhances residency education

When department chairs and residency directors look at the Vanderbilt house staff, they see future leaders. Since there are currently some 730 residents and fellows in 60 different Vanderbilt training programs, what constitutes preparation for leadership, and what new knowledge and skills will be needed by the next generation of physician leaders, are questions under constant review from a broad range of perspectives at Vanderbilt. Enhanced national standing is a means to attract those residents and fellows who are most capable of making contributions to patient care, education and research. “The question of moving up in national standings leads back to our purpose for being here in the first place,” said Dr. Martin P. Sandler, professor and chair of Radiology and Radiological Sciences. “As an institution, we’re here to build something that is quite unique, that occupies the leading edge of research and clinical work. And attracting the best people means having the best program. It’s all tied together.”

by Paul Govern

Here are some examples of how the performance and national standing of residency programs may be at least partially measured:

- An in-service exam is administered annually to all doctors in the nation’s 130 emergency medicine residency programs, and in eight of the last nine years Vanderbilt’s third-year group has had the top aggregate score in the nation. In the 10-year history of the program every resident has passed the board examination on the first attempt.
- Operative experience is a key measure of graduate medical education in urologic surgery, and a national residency review committee finds that Vanderbilt’s urologic surgery residents lead the nation in operative experience. For the past 10 years every resident has passed the board examination on the first attempt.
- For the past six years every Vanderbilt radiology resident has passed all 10 parts of the oral board examination on the first attempt, a performance shared by only two of the nation’s other 189 radiology residency programs.

The doctors who direct Vanderbilt residency programs stress that excellent teachers and a stimulating

clinical and research environment are not the whole story. They say the congeniality found at Vanderbilt is invaluable to the success of graduate medical education here.

“The ambience of the place is a real strength,” said Dr. Keith D. Wrenn, professor and vice-chair of Emergency Medicine and director of the residency program. “There seems to be more cooperation within this institution than in many other similarly sized centers.”

“The thing I’m most proud of here is the degree of camaraderie, faculty to faculty, faculty to resident, and resident to resident; we excel at all three, and that is what I think is most important,” said Dr. Joseph A. Smith Jr., William L. Bray professor of Urologic Surgery and chair of the department. “There are other programs that might compete well with us that fail on that score.”

“Vanderbilt is very house staff conscious, and that adds to the warmth of the experience for residents,” said Dr. Thomas S. Dina, associate professor and program director of the diagnostic radiology residency and chairman of the VUMC Graduate Medical Education Committee. “It’s a nice atmosphere to learn in, which is why our residents



Emergency medicine
resident Patty Chu

do well.” The office of Graduate Medical Education sponsors social events and distributes free tickets to entertainment and sporting events, and individual departments sponsor their own events for house staff. Radiology residents, for example, each year in July host a weekend-long boating party to welcome the new house staff and their families. All Radiology house staff are welcomed to Dina’s home for Thanksgiving dinner (38 came last year).

“It’s important that the residents are happy,” Wrenn said, “that they have some ownership and feel what they say and do means something. We listen to them.”

Congeniality allows teaching to flourish. “We don’t like to tie instruction to one learning style,” Wrenn said, adding that some Emergency Medicine faculty favor the Socratic method, some focus on making difficult knowledge more understandable, and some are at their best at the bedside, broadening single cases to impart lessons. All department faculty are evaluated annually by the residents.

Breadth and distinction of the faculty are requisites for the competitiveness of any residency program. With radiology having evolved into so many sub-specialties, the key for Sandler is balance, including a strong basic science component and a vital research program. “Having a full complement of faculty in all 10 areas of radiology makes us unusual,” he said. The department faculty includes 10 board examiners and four journal editors. As in Emergency Medicine, responsiveness to residents underlies the program of instruction. “All the residents know they have immediate access to Dr. Dina and me,” Sandler said. More formally, his monthly “chairman’s pow-wow” brings together a resident representative from each year of the residency program with chief residents and department leaders.

Residents come to Vanderbilt with a variety of interests and objectives. Wrenn said Emergency Medicine seeks future leaders, period, without bias toward academics, clinical

work, research, policy making or any of the other avenues open to doctors. This is Radiology’s take as well: “Our goal is to give the resident the exposure and opportunity to succeed, whether in private practice, in research or in a totally academic role,” Dina said.

Smith admits to somewhat of a bias. “We are seeking individuals who can make major contributions to urologic surgery and patient care,” he said. “We would never dissuade any resident from private practice, but we’re looking mainly for future academicians.”

“My personal bias,” said Dr. Fred K. Kirchner, associate dean for Graduate Medical Education, “is that, while all our house staff should be eminently capable to proceed to careers in academic medicine, there are many ways for doctors to contribute and we shouldn’t insist on them all being academicians. We should, however, expect them all to be leaders.

“If we do the right thing, if we strive for excellence, we can’t help but make the top 10,” Kirchner said. 🗨️

Vanderbilt takes the lead in
technology

DEAN DIXON



by Mary Beth Gardiner

Technology transfer — the movement of discoveries and ideas from academic research into the marketplace — is more than just a way to generate revenue for a university. Bringing new products to the public improves quality of life and spawns new companies and new jobs. The resulting streams of income support further academic research and education, as well as corporate growth.

transfer

It's hard to talk about technology transfer without talking about the two directions it can take. If a university has an idea or a discovery or a patent, it can do one of two things to commercialize it. It can pass it off to somebody else. Or, if it's a great idea or a great product around which a successful company can be built, the university can make a decision to start that new company.

More and more these days, universities are positioning themselves so that they are able to do both, and Vanderbilt University is among those taking the lead.

Technology transfer in a limited sense handles intellectual property and the commercialization of it, and Vanderbilt has been doing that since 1991 through its Office of Technology Transfer. Four years ago, the University decided to also consider opportunities to start new companies based on intellectual property and ideas produced by faculty members. They established the Chancellor Fund, larded by the endowment, and opened the Office of Enterprise Development to identify likely investment candidates and to assist with their formation and incubation until they complete a major round of investment.

As an early-stage venture capital program, the OED acted as the due diligence agent for the \$10 million Chancellor Fund in assessing new business opportunities, or as a catalyst for creating new enterprises. During

the assessment stage, the office helped with the development of business plans and assembled entrepreneurial management teams. Once selected opportunities were approved by the Investment Committee of the Chancellor Fund, the OED led efforts to syndicate its most promising investments to other investors.

In December 2000, the OED was transformed into the Vanderbilt University Technology Company. As a wholly owned subsidiary of the university, the VUTC is better structured to effectively manage the development of Vanderbilt-related business opportunities.

"The two activities we have here on campus — the OTT and the VUTC — work together, communicating with each other and sharing information," said Dr. Harry R. Jacobson, vice chancellor for Health Affairs, "because we want to make the best decisions. For those things that are appropriate to license, we license, and for those things that look promising for start-up companies, we start up the companies."

Vanderbilt was one of the first to look at the prospect of investing in and shepherding start-up companies, and is now one of only eight universities in this country with an established venture capital program. The first of the now 18 companies that have been launched by Vanderbilt in the past four years — MXISystems, Inc. — is a prime example of how the roles of the OTT and the VUTC dovetail.

The Bayh-Dole Act of 1980

Technology transfer received a resounding federal endorsement with the enactment of the Bayh-Dole Act of 1980, and since then investment in academic research has skyrocketed. The underlying tenet of the legislation is that inventions resulting from federally funded research should be licensed to industry for commercial development in the public interest.

According to a report by the Association of University Technology Managers (AUTM), in the 20 years since that act was enacted, nearly 4,300 new companies have been formed based on a license from an academic institution. An estimated \$50 billion in economic activity and 270,000 new jobs have resulted from these companies.

Making better X-rays

Frank Carroll first started thinking about making an X-ray laser in the 1960s. He even built one in his basement and coaxed his wife into serving as guinea pig to test it. But, he says, he never had a technique useful for producing the beam he had in mind until the free electron laser came along.

When Vanderbilt acquired an FEL in the 1980s with support of the Strategic Defense Initiative Organization (“Star Wars”), Carroll and a group of colleagues submitted a proposal for funding their idea on making better X-rays. They were turned down. It was only after the inventor of the FEL, John Madey, spoke out in support of their idea in 1987 that the DOD changed its mind and provided funding.

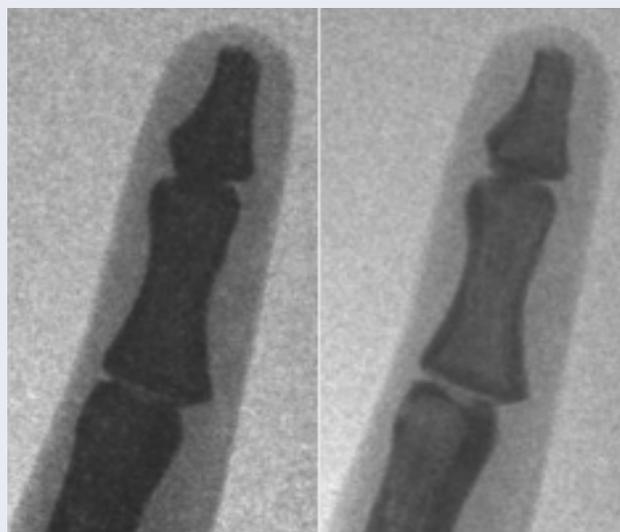
Now, after years of dedicated effort, the scientists have a machine that is close to being commercialized as a device promising value as both a clinical and research instrument.

The device is capable of imaging whole body parts in a single shot, and the resulting image gives more detail with less “fog” than traditional X-rays. “We are now proposing to look at structures within the breast 3-dimensionally, rather than having all of the internal architecture overlapping,” Carroll said. The result will be higher accuracy with less discomfort for the patient and less radiation exposure. And it promises to be more cost-effective, thanks to earlier diagnosis and reduced cancer treatment costs.

Research applications of the device continue to surface, he said. “Every time we talk with someone, they have another use for it.” Carroll is particularly optimistic about so-called “K-edge imaging,” a technique whereby atoms detectable by monochromatic X-rays are attached to a tumor-targeted drug. The idea is that after administration, the drug will circulate and stick to tumor sites, allowing for precise X-ray localization.

Carroll said he “stands on the shoulders of giants” who have contributed to the development of the device over the years, a group populated by engineers, physicists, doctors, medical students, and businessmen alike. Those currently working on the project are Robert Traeger, Marcus Mendenhall, Scott Degenhardt, Gary Shearer, Travis Henry, Howard Motter, and Cheryl Herman.

For more about MXISystems, Inc., visit www.mxisystems.com. To learn more about the development of the device or research applications, go to <http://exploration.Vanderbilt.edu>.



The image on the left is a monochromatic X-ray of a finger at 19 keV. The soft tissues of the finger are well seen, but you can't see through the bone. The image on the right was taken with a monochromatic X-ray beam at 29 keV. Now you can see through the bone

and see the internal trabeculae (the internal support scaffolding of the bone) and the cortex of the bone, but the soft tissues are less visible. This demonstrates the tunability of the monochromatic beam.

— Mary Beth Gardiner

MXISystems, or Monochromatic X-ray Imaging Systems, is a company based on a unique method of generating and harnessing single-frequency X-rays for use in medical imaging, and in biological, biomedical, and material sciences applications.

One of the major motivations for developing the technology is that current methods of polychromatic X-ray imaging, such as that used in mammography, are woefully inadequate, said Dr. Frank E. Carroll Jr., professor of Radiology and Radiological Sciences and co-inventor of the device. Carroll, who is also a professor of Physics, said “the beam hasn't really changed significantly since Roentgen discovered X-rays back in 1895.”

The new device promises to provide a hands-off way to image breasts — or other body parts — with higher clarity and with lower levels of radiation. Tests on simulated breast material comparing conventional X-rays with monochromatic X-ray imaging suggest a noticeable improvement in ability to detect small tumors.

Years of pilot work on the X-ray machine were funded by private and federal sources as diverse as Kodak and the Department of Defense. When the Office of Naval Research offered \$10 million of support if Vanderbilt pledged an additional \$2 million to commercialize the device, the scientists worked with the OED to secure investment through the Chancellor Fund, and in 1999, MXISystems was born. The OTT, meanwhile, took the steps necessary to patent the intellectual property, which Vanderbilt has given MXISystems exclusive license to use.

Support from the university in this kind of process is vital, Carroll said.

“Most academicians have neither the talent nor the will to bring a technology to the light of day,” he said. “Unless the university is helpful, it just isn't going to happen.”

Vanderbilt's technology transfer program is increasingly successful, yielding dramatic returns to the university and to taxpayers. The

OTT filed 72 U.S. patents in fiscal year 2002, a nine-fold increase since 1991, and saw 39 patents issued. The number of licenses/options granted in FY02 was 18, up from 3 in FY91. Total royalties increased from \$118,000 in 1991 to \$12.3 million in 2002.

The leap in royalty income was largely due to one major success: the transfer of the license for WizOrder software to McKesson Corporation. Vanderbilt invested \$500,000 and realized a potential \$30 million or greater return in about 18 months. That kind of return is outstanding in the venture capital business, says George “Mick” Stadler, president and CEO of VUTC.

“That makes us instant geniuses,” he said, “but then everyone wants to know what you’re going to do for the second act and the third act and the fourth act.”

Both Stadler and Chris McKinney, director of the OTT, agree that it’s folly to count on such short-term “hits” when planning a strategy.

“If you aim for money, you won’t tend to get it because you’ll focus on too few opportunities,” McKinney said. “The goal is to keep

seedling new opportunities, and to also keep nurturing the ones that are out there.”

The Chancellor Fund has now been entirely committed, Stadler said. Combining that sum with petitioned third party capital investments brings the total value of the investments to more than \$47.7 million. Vanderbilt has plans to “evergreen” the Chancellor Fund by re-investing returns.

With the continuing successes of the OTT and VUTC, and girded by the prospect of a sequel to the Chancellor Fund, Jacobson feels that Vanderbilt is well on its way to meeting the goal of being one of top 10 medical centers in the country by year 2010.

“To be “10 by ’10” requires a lot of financial resources,” he said. “The strategic questions are, what are your best sources of money to fund it and where are the growth opportunities? One major source of discretionary funding that we have not adequately tapped is this technology transfer opportunity. I think it’s very important.”

A catalyst and incubator for new companies

Even though it may look like a typical early-stage venture capital fund, the Vanderbilt University Technology Company is different, said president and CEO Mick Stadler. Where the venture capitalist has only one asset — money — to offer, VUTC has four: people, inventions, money, and brand.

Vanderbilt has a large pool of intellectual capital, it owns the patents, and it puts up its own funding. Plus, it has the prestige of its name.

“That makes this type of process unique, and it really enhances the value of the proposition,” he said.

The VUTC acts as both a catalyst and an incubator for new companies. Once an opportunity is selected, a business plan is devised, and a management team identified. Then, just as important, the office provides physical and intellectual support for the new venture that can prove invaluable.

“The entrepreneurial process is very uneven,” Stadler said. “There are highs and lows, so when you try to do a start-up in a vacuum, you run the risk of burning out and dropping out a lot sooner. The real value lies in the shared community of collective experience.”

But the process isn’t entirely creative. There is a bureaucratic component to the process that can be complex. Getting the deals constructed, by their very nature, requires tremendous legal interface. The demands of building new businesses and working with management on the existing ones must be balanced toward the ultimate goal: a return on investment.

“We’re patient — we’re long-term investors — but we’re in the business of investing money with the idea of exiting so that we get a return,” Stadler said. “That’s the up side for the source of the funds, which is Vanderbilt’s endowment.”

For more information about the VUTC and its portfolio, visit www.vutc.net.

— Mary Beth Gardiner

Helping Vanderbilt become a household name in technology

As director of the Office of Technology Transfer, Chris McKinney sees the mission of his group as more than just bottom line dollars.

“Money, to me, is just one of the derivative functions,” he said. “Besides the money, we do a lot of things that don’t result in any direct attributable money at all.”

McKinney identifies three guiding principles for the daily operations of the OTT: service, impact, and

profile, in that order of importance. Service means serving the faculty in a variety of ways, all of which advance the mission of the university, he said. Impact is having Vanderbilt become of a “household name” in technology and, conversely, having people think of technology when they think of Vanderbilt. Profile, he concludes, is how Vanderbilt falls in rankings.

The services offered by the OTT range from

arranging material transfer agreements (permission for transfer/ use of biologicals, etc. among scientists) to assisting with patent and applications to building the presence of Vanderbilt through community relations. McKinney sits on the board of both the Tennessee Biotechnology Association and the Tennessee Technology Development Corporation.

— Mary Beth Gardiner

For more information about the OTT, visit www.vanderbilt.edu/technology_transfer/.



WANTED

students with dreams

BY NANCY HUMPHREY

Becoming a Vanderbilt medical student takes much more than a desire to become a physician. The medical school, ranked 14th out of the nation's 125 medical schools by *U.S. News and World Report* in 2003, is attracting some of the nation's best applicants, but it's not just those students with the highest grade point averages or those who have wanted to be doctors since the age of 7, the medical school is recruiting.

The list of 3,507 applicants for the Class of 2007 has now been narrowed down to 200-225 prospective students. By August, the number will be reduced to what it is every year, 104 first-year medical students.

What the Vanderbilt University School of Medicine admissions committee is looking for is this: a student who has much more than a burning desire to become a physician, although that in itself is a worthy goal.

"We're looking for the special student, who has his or her own interests and passions beyond merely being 'the good doctor,'" said Dr. J. Harold Helderman, professor of Medicine and assistant dean of admissions. "Our students all have their own dreams, and they have the academic capacity, so with hard work they can easily accomplish their class work and begin working at accomplishing their dream. We also believe it's the role of the faculty to not only provide the baseline foundation of knowledge that every one of these physicians will need, but also to help our students accomplish their dreams."

The process of selecting a new class of Vanderbilt medical students is exhausting to even think about. It's an 11-month process (July-June) that isn't completely finished, because of waiting list changes, until the new class shows up in August.

The process works like this: the admissions committee screens all applicants to determine the 1,000 who will be offered an opportunity to interview at Vanderbilt. Of that group, about 800 will come, and a select group of 50 faculty members,

professionally trained in the interviewing process, will meet with the applicants. The interviewers then make a recommended action on each student to the full admissions committee, comprised of 20 faculty members and three student representatives. The action may be immediate admission, a spot on the waiting list, or rejection. Three members of the committee and one student serve as the advocates of the student applicant and present the student's credentials to the committee. Then a full vote is taken. Every Friday from September until the middle of March between 36 and 50 students are evaluated during this rolling admissions process. About 200-225 are invited to become members of the first year class. Some take the offer. Some don't. Students may hold a spot at more than one medical school. By May 15, however, the final decision day, about 150 students will have asked Vanderbilt to hold a spot for them in the class of 104. From May 15 to June 1, Vanderbilt will learn how many have chosen Vanderbilt as their first choice. That number is typically 80-85 students. Then it is determined how many spots, usually 20-25, will be filled from the waiting list. Between June and August, the waiting list will change as lists at other medical schools change and some students accept another offer. When one student chooses another university, Vanderbilt brings another name up from its waiting list.

It may not be until the first day of first-year orientation at Vanderbilt, when the students are greeted by the academic leaders of the medical school and are given the

white coats that are symbolic of the physician, that the admissions committee finally knows which of the applicants they selected will be members of the class.

"It's an awesome task, not technically difficult, but emotionally, morally and intellectually difficult," Helderman said. "Many of these candidates have fantastic credentials, so discriminating among these candidates the very best, and the leaders in the field of pre-medicine, is an awesome responsibility."

Helderman said VUSM is looking for students who have excelled in a given area.

"Some excel by being extraordinarily well-rounded. They have something of everything. Others are fantastic investigators. They have research as their path. Some are driven by service. Others have leadership roles. We want to recruit leaders, leaders in something — research, policy or practice. When we turn out a good family practice physician, we want that person to be the head of the family practice group in their community, region or nation. When we turn out an internist, we expect to turn out a leader in internal medicine practice or policy. When we turn out an investigator, we expect to turn out a leader in research. There are different pathways to get to and through our medical school."

Vanderbilt medical students rank at the top in terms of the Medical College Admissions Test (MCAT) average and grade point averages — 11.2 and 3.78 respectively, last year.

Among the 125 medical schools, only nine schools had better MCAT averages

than Vanderbilt, and only five had grade point averages comparable to Vanderbilt's. But can Vanderbilt compete with a top 10 medical school for applicants? If a student is offered a spot at Vanderbilt, and one at Harvard (ranked 1st), Johns Hopkins (ranked 2nd) or Duke (ranked 4th), will he or she choose Vanderbilt?

"We do very well but we want to do better," said Dr. Steven G. Gabbe, dean of VUSM. "If we look at our ability to attract students from schools that rank above us in the *U.S. News* ranking, we get about 15 percent of them," Gabbe said. "Of all the schools, the ones we compete with more effectively are Washington University in St. Louis (tied for 2nd with Johns Hopkins) and Baylor (ranked 12th). In the past two years we have attracted only four of 23 who were also accepted at Hopkins and four of 33 also accepted at Duke," Gabbe said. Helderman noted that of a total of nine students accepted to both Harvard and Vanderbilt, only one came to Vanderbilt.

Several issues – cost of a medical education, less scholarship support, and the organization of the current curriculum – may be persuading students to go elsewhere, issues that are being actively addressed at

First-year medical student Brian Armstrong



DANA JOHNSON

Vanderbilt, Gabbe said. In overall financial aid, available as scholarships, Vanderbilt ranks well below most private medical schools.

"We need to be more competitive with these schools in terms of our scholarship support," Gabbe said. "Overall, the top 10 schools have more scholarship funding available than we do. I hear it when I talk to prospective students on the phone. Many schools offer not only full scholarships but substantial stipends to help with other expenses." (See accompanying article on *Vanderbilt's scholarship campaign*, page 31.)

Vanderbilt will be changing its first- and second- year curriculum and is considering a pass/fail system for students during the first two years of medical school, Gabbe said.

The school is also taking a serious look at diversity, trying hard to attract a more diverse population under the guidance of George C. Hill, Ph.D., the Levi Watkins Jr. Professor and Associate Dean for Diversity in Medical Education.

"We also have to sell Nashville, and do a much better job demonstrating to our prospective students that Nashville is a great place to live," Gabbe said, adding that there is now much more information about the city of Nashville in the materials that are sent to each applicant. A tour of Nashville was added to the school-sponsored Second Visit Weekend in April and Mayor Bill Purcell welcomed them to the city.

"We're going to show them the town, the cultural and social sites, areas they might want to live in. We're competing with Boston, Philadelphia and New York. Nashville is a wonderful place to live. We have to convince them of that."

Gabbe said he believes VUSM is truly a great medical school.

"What makes this a great medical school is the commitment of the school, of the faculty, to medical student education, part of the three-pronged mission of medical schools that has too often been overlooked."

Gabbe said that at many schools medical student education is not emphasized as much as research and patient care.

"At other institutions there isn't a sense of responsibility for or ownership of medical student education and that's very different here," Gabbe said. "It's part of the culture of our school. It's a commitment of the faculty, and it's an expectation of the students."

This year VUSM began a Master Clinical Teacher's program of seven physicians, designed to enhance medical education for the school's third- and fourth-year students, to protect time for teaching, which too often takes a back seat to the faculty's research and patient care demands, and to improve the teaching skills of VUSM faculty members. Two other medical schools – the University of California at San Francisco and Harvard – have similar programs.

Gabbe said that the relatively small size of the medical school is also a plus. There are only a few medical schools that have as small or smaller class sizes. Vanderbilt has a total of 414 medical students. Cornell, 418 and Duke, 386.

"Having a small class allows us to get to know the students individually and allows them to get to know each other as well," Gabbe said. "This creates a strong bond among the students, a community of scholars, and that's especially important. Our students teach each other and help each other out."

Gabbe hadn't been here long as dean when he was walking back to his office in

"We want to recruit leaders, leaders in something – research, policy or practice."

– Dr. J. Harold Helderman

Medical Center North, after being on call on the Labor and Delivery unit on a Sunday night. A first-year student told Gabbe he was heading to the anatomy lab where the second-year students were helping first-year students study for their first big exam. “You don’t see that many places,” Gabbe said.

“We have a legacy of student support,” said Dr. Bonnie M. Miller, associate dean for Medical Students, adding that a few years ago when Vanderbilt was allowed to obtain data, Vanderbilt ranked at the top in student satisfaction.

“There’s a genuine sense of camaraderie amongst the students,” she said. “They like each other. They help each other out. Students genuinely want to make this a better place for other students.”

Miller said the medical school has a student advisory program and every first-year student is paired with a second-year “buddy.” A third-year student retreat was added this year, at the request of the fourth-year class who said it was needed.

“There’s the sense that they’re looking out for each other. It’s a student legacy,” Miller said. “We encourage it. We support it, but it’s a legacy that’s passed on from one class to the other.”

VUSM also encourages flexibility in the curriculum, Miller said. This year more than a dozen medical students are on leave participating in other programs such as the research-oriented Medical Scholars Program at Vanderbilt and other institutions. Six medical students had babies this year.

“We’ve found out our students are excited about many things, and it’s fun to help them do what they want to do,” Miller said. “It enhances our educational program.” 🍷

Taking cost out of the equation

There are two major reasons for the Vanderbilt Medical Student Scholarship Program – many students who want to come to Vanderbilt are forced to choose another medical school due to Vanderbilt’s limited scholarship money; and upon graduation the indebtedness of many Vanderbilt medical students determines the career choices they make in medicine.

“Those are compelling reasons to make this effort toward a comprehensive scholarship program,” said Dr. Robert D. Collins, John L. Shapiro professor of Pathology and one of three leaders of a steering committee to raise \$50 million in endowment for a scholarship program for VUSM. Working with the Canby Robinson Society and Dean Steven G. Gabbe, Collins, Robert E. McNeilly Jr. and Dr. Judson G. Randolph chair the steering committee.

When inaugurated, the program is intended to reduce the tuition burden for virtually all students who are not receiving other scholarship support or who are not on military scholarships. Currently VUSM has about \$25 million in endowment that provides needed financial support to current students. When a total of \$50 million is raised, the payout from the endowment, estimated at \$2 million, will be available each year for tuition reduction. Additional resources for scholarship include named full or partial scholarships (such as the recently funded Chapman scholarship, named after former Dean John E. Chapman) and trusts already pledged.

“The scholarship program will ultimately take the cost of tuition out of the equation as a deciding factor in terms of who comes here,” Collins said.

“Dean Gabbe’s initiative to increase diversity in our medical school is important in helping meet the health care needs of minority populations, as well as becoming ranked in the top 10 schools in the country,” said George Hill, Ph.D., associate dean for Diversity. “Having sufficient scholarship will help attract minority students and make this institution more competitive in our recruitment.”

Another component of the program is an expectation that students receiving scholarship support will engage in community service activities, as their class or clinical schedules permit.

“Our hope is that after graduation students will continue to support educational programs wherever they are, and will continue to participate in community service activity. If we are able to foster this type of societal obligation, our scholarship program will set a new standard in developing opportunities as well as responsibility,” Collins said.

With subsequent growth of the portfolio, the amount of money each student receives will gradually increase until it approaches full tuition, Collins said. The steering committee hopes that the \$50 million component will be operational within three to five years.

Collins said the program will allow prospective students to look at the quality of the education at Vanderbilt instead of the cost of education.

“When that becomes the case, Vanderbilt’s leadership role in medical education is assured,” Collins said. “We have the best climate for education of any medical school, as shown by the satisfaction of our medical students on graduation. When we compete only on the basis of the quality of our program, we are going to be far ahead.

“All highly ranked medical schools recognize the importance of scholarship support. Our program is unusual in that we are trying to tie awarding scholarships to a community responsibility.” – NANCY HUMPHREY



match day

2003



PHOTOS BY DANA JOHNSON

* Indicates CRS Scholars

Alabama

University of Alabama Hospital, Birmingham
Kris Kimball, obstetrics/gynecology

Arizona

Good Samaritan Reg. Medical Center, Phoenix
Jeff Smithers, medicine: pediatrics

Arkansas

University of Arkansas, Fayetteville
Kim Vinson, Otolaryngology

California

Children's Hospital, Los Angeles
Tracy Clark, pediatrics

UCLA Medical Center, Los Angeles
Dhiren Dave, urology
Alex Hughes, orthopaedic surgery
Lauren Peters, pediatrics

Stanford University, Palo Alto
David Duong, urology
Kathrin Sidell, pediatrics

Santa Clara Valley Medical Center, Santa Clara
*Lin Jin, medicine-primary
James Yeh, internal medicine

Colorado

University of Colorado School of Medicine, Denver
Kevin Jo, internal medicine
Colleen O'Connor, pediatrics

HealthOne Alliance, Denver
Daniel Grippo, transitional

Connecticut

Yale-New Haven Hospital, New Haven
Se Ryoung Kim, internal medicine
Boris Pavlin, medicine-preliminary

Florida

Mayo Clinic, Jacksonville
Chris Nolte, neurology

Jackson Memorial Hospital, Miami
Krishna Ratnam, internal medicine

Georgia

Emory University School of Medicine, Atlanta
Jeffrey Stark, internal medicine

Illinois

University of Chicago Hospital
Samuel Coy, orthopaedic surgery
Andrew Trueblood, orthopaedic surgery

Cook County Hospital, Chicago
Jack Wu, medicine-preliminary

Rush-Presbyterian-St. Luke's, Chicago
Lisa Jackson, obstetrics-gynecology

Children's Memorial Hospital, Chicago
Chloe Rowe, pediatrics

McGaw Medical Center-Northwestern University, Chicago
James Sieradzki, orthopaedic surgery

Iowa

University of Iowa Hospitals and Clinics, Iowa City
Susannah Quisling, medicine-preliminary

Maryland

Johns Hopkins Hospital, Baltimore
Justin Lockman, pediatrics
Suhail Mithani, general surgery

Massachusetts

Boston University Medical Center
Justin Esses, psychiatry
Kevin Kozak, transitional

Harvard Longwood Psych-Mt. Auburn Hospital, Cambridge
Andy Michel, psychiatry

New England Medical Center, Boston
May Pini, internal medicine
Sonya Wang, pediatrics

Massachusetts General Hospital, Boston
*Allan Moore, internal medicine
Mona Patel, psychiatry
*Rob Peck, medicine-pediatrics

Michigan

University of Michigan Hospitals, Ann Arbor
Constance Mobley, general surgery
David Morris, urology
Rahul Nayak, internal medicine
Emily Stoneman, internal medicine

Minnesota

University of Minnesota Medical School, Minneapolis
Maren Eggert, internal medicine
Chris Hilton, otolaryngology

Missouri

Barnes-Jewish Hospital, St. Louis
Meg Corrigan, psychiatry
Sam Hong, internal medicine
Brian Lindman, internal medicine

Forest Park Hospital, St. Louis
Gopa Iyer, transitional

New Mexico

University of New Mexico School of Medicine, Albuquerque
Randy Bourne, obstetrics-gynecology

New York

Mt. Sinai Hospital, New York City
Doreen Ray, medicine:pediatrics

University of Rochester/Strong Memorial
John Mori, neurology

NYU School of Medicine, New York City
Tumi Johnson, medicine-primary

North Carolina

Duke University Medical Center, Durham
William Fiske, internal medicine

University of North Carolina Hospital, Chapel Hill
Morgan McDonald, medicine:pediatrics
J.P. Olarte, general psychiatry

Ohio

University of Cincinnati Hospital
Todd Wine, otolaryngology

Children's Hospital Medical Center/University of Cincinnati
Steve Wu, child neurology

Pennsylvania

Children's Hospital of Pennsylvania
Lisa Andrews, pediatrics

Hospital of the University of Pennsylvania, Philadelphia
Michael Shashaty, internal medicine

Tennessee

Baptist Hospital
Brent Frisbie, preliminary

Vanderbilt

Wesley Abadie, surgery-preliminary
John Conoyer, otolaryngology
Jerry Crook, internal medicine
Josh Denny, internal medicine
Danielle Dion, obstetrics/gynecology
Lesly Dossett, general surgery
*Kristin Eht, Medicine: pediatrics
Stephen Gimple, internal medicine
Joann Goring, internal medicine
Susan Hata, medicine: pediatrics
Mimi Huizinga, internal medicine
Jeff Jorgensen, surgery-preliminary
Dee Malkernek, surgery-preliminary
Annis Marney, internal medicine
Karen Martin, internal medicine
Nicole McCoin, emergency medicine
Jared McKinney, emergency medicine
Brent Rexer, internal medicine
Eric Shinohara, research: radiation oncology
Jonathan Spanier, pediatrics
John Stafford, internal medicine

Texas

Austin Medical Education Programs
Brian Emerson, transitional

University of Texas-Dallas/Southwestern
Hema Thakar, general surgery

Utah

University of Utah Affiliated Hospital, Salt Lake City
Bill Pidwell, family practice

Utah Valley Family Practice, Provo
Sandra Garrand, family practice

Virginia

University of Virginia, Charlottesville
Jonathan Heavey, emergency medicine

Riverside Regional Medical Center
Kou-Wei Chiu, family practice

Portsmouth Naval Hospital
Dana Adkins, internal medicine
Michael Johnston, surgery

Washington

University of Washington Affiliated Hospitals, Seattle
Kristin Nyweide, pediatrics

Washington D.C.

Walter Reed Army Hospital
Jacob Richardson, psychiatry

Wisconsin

The Medical College of Wisconsin, Milwaukee
Stephanie Harris, urology

University of Wisconsin Hospital and Clinics, Madison

Joanna Hwang, otolaryngology
Brian Shannon, orthopaedic surgery

President's Corner

Match Day and graduation. Four years ago the Vanderbilt Medical School Class of 2003 arrived in Nashville as innocents mostly just out of college. Now they are older and wiser and are preparing to leave the protected environment of medical school ready to take up the serious responsibilities of becoming house officers. Residency is about twice as hard as medical school but most of us look back on it as one of the most exciting and happy times of our lives.

The two most important dates of the year for the Class of 2003 occur just seven weeks apart. Match Day, the day each stu-

dent opens an envelope and finds out which hospital will be his or her home for the next three or four years, came on March 20. Graduation is May 9, marking the end of four years at Vanderbilt. Match Day is a new beginning; graduation is a happy ending. The Class of '03 will send one or more representatives to a diverse group of 51 different institutions. Twenty-one will stay at Vanderbilt and others will go to Duke, Johns Hopkins, Barnes, UCLA, University of Colorado, etc.

The four graduating Canby Robinson Society scholars matched as follows:

- Kristin Ehst – Vanderbilt, Medicine Pediatrics
- Lin Jin – Santa Clara Valley Medical Center, Medicine-Primary
- Robert Peck – Massachusetts General Hospital, Medicine-Pediatrics

- Allan Moore – Massachusetts General Hospital, Medicine

We all wish them well and will watch them depart confident that they will excel in their new roles. Vanderbilt graduates have a well-earned reputation of being good residents.

The next event on the CRS calendar is the annual dinner on May 17. We will be celebrating the 25th anniversary of the CRS. This will be a very special event. **CRS**

William S. Stoney
Jr., M.D.
*President,
Canby Robinson
Society*



ANNE RAYNER POLLO

DeLoaches oversee Joe C. Davis Foundation

Dr. and Mrs. William R. DeLoache, longtime members of the Canby Robinson Society, oversee the Joe C. Davis Foundation, a private charitable foundation based in Greenville, S.C., along with their son, William Jr., and daughter, Frances Ellison.

The Davis Foundation provides funds for organizations primarily in the Nashville area and was established by the late Davis, a 1941 graduate of Vanderbilt University. While at Vanderbilt on a tennis scholarship, he won the Southeastern Conference tennis title three times. Davis, who started Davis Coals Inc., a successful coal sales company, and later Webster County Coal Corporation, the Dotiki Mine in Clay, Ky., later became a member of the Board of Trust. When he died in 1989 he provided the bulk of the Foundation's current funds through his will.

The Joe C. Davis Foundation has donated \$1 million to create a permanent endowment to support the Ann and

Roscoe R. Robinson Professor of Clinical Research at the Vanderbilt Diabetes Center. The gift will be used to support the Clinical Diabetes Research Unit at the Vanderbilt-Eskind Diabetes Clinic that is still in the planning stages. The Davis Foundation also supports the Department of Urology, Vanderbilt-Ingram Cancer Center, Vanderbilt University School of Medicine, Vanderbilt Children's Hospital and the Building Fund. It has also funded the Joe C. Davis Chair of Biomedical Science, which is held by Dr. Daryl K. Granner, director of the Vanderbilt Diabetes Center.

The fundamental mission of the Foundation is to help people help themselves, while encouraging and maintaining individual initiative and responsibility. Special emphasis is placed on education, as a means of enabling people to make the most of their abilities, and on health care, including but not limited to research and medical education programs.

The donation honors Dr. Roscoe R. Robinson and his wife, Ann. Robinson, professor of Medicine and vice chancellor for Health Affairs Emeritus, served from 1981 until 1997 as the chief executive and academic officer for all of Vanderbilt's programs in health.

"Joe Davis and Ike were great friends. Joe was on the board and he and Ike became personal friends," DeLoache said. "After Joe died, we felt we wanted to do something worthwhile with what he left us to administer. We decided it would be fitting to honor Ike and Ann," DeLoache said.

"The DeLoaches, and the Joe C. Davis Foundation, are great supporters of Vanderbilt University," Granner said. "This gift acknowledges that fact, and is also an expression of the warm friendship that existed between Joe Davis, Ike and Ann, and between the DeLoaches and the Robinsons. This is a formal and ongoing continuation of that personal relationship." **CRS**-NANCY HUMPHREY

The CRS - a historical perspective

The Canby Robinson Society is a familiar name around Vanderbilt University Medical Center. But not everyone knows the history behind the name of Vanderbilt's largest donor society.

Created in 1978 to honor and encourage those who contribute to furthering education, research and patient care at VUMC, the CRS was named after Dr. George Canby Robinson, who became dean of the Vanderbilt University School of Medicine in 1920 and changed the face of medical education at Vanderbilt.

The society allows its members to become personally acquainted with the people and programs at Vanderbilt and promotes both unrestricted and restricted giving in support of the medical center. All unrestricted gifts support the medical school's financial aid programs. Perhaps the most long-reaching contribution of the CRS has been easing the burden of student debt through four-year, full-tuition scholarships and the

Scholarship Benefactor Program. Restricted gifts support a particular department, program or project within the Medical Center.

The CRS also presents a prestigious award, with a cash prize, to the member of the fourth-year class who is voted by their classmates as having the intangible qualities of common sense, knowledge, thoughtfulness, personal warmth, gentleness and confidence that combine to make the "Ideal Physician," the person fellow classmates would most like to have as their own personal physician.

The formation of the CRS was a slow, often painful process, says Nelson C. Andrews, the society's first president in 1979.

An active member of the medical center's board at the time, Andrews was asked by Vice Chancellor Vernon Wilson why Vanderbilt didn't have a donor society. The answer was simple. "There wasn't a good feeling about Vanderbilt at that time in the community," Andrews said.

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," Andrews said.

So a steering committee was formed to solicit members, mostly Vanderbilt and community physicians. "Many would give us money and we would guarantee that Vanderbilt would be a different player in the community than it had ever been before. We called it an ambassadorship, a friendship. It was not a project at that time to make money; it was a project to make friends."

The membership grew slowly.

"There was no fast way to do this. It was pick and shovel work. Vanderbilt had been important in these people's lives but had lost their love. A change in the overall atmosphere of the way that Vanderbilt had been perceived by the physician community and the community at large had to occur. It was not an easy go. But I kept telling Vernon that one day the CRS would be the biggest donor society at Vanderbilt."

Andrews said slowly but surely the society took on a life of its own.

"The CRS truly became a product of its volunteers. I take no credit for how good it's become and what it's become," he said. "It has become what we envisioned. It's hard to think there's something better to do at Vanderbilt than provide scholarships. It's the epitome of what you can do to provide help. It's become a great ambassador vehicle, keeping Vanderbilt's image where it should be, not where it was."

Dr. Irwin B. Eskind (MD'48, HS'51), CRS president from 1985 to 1987, said the CRS has created a sense of cohesiveness and belonging between the community and the medical center.

"Through this relationship the CRS has been able to be extremely supportive of the medical students by being able to offer them scholarships," he said, adding that a member of the Vanderbilt faculty and several current residents have gotten their medical education on behalf of the Canby Robinson Society.

"It's a good feeling to know that this group is helping these young people get a medical education that's second to none," he said. **CRS**

-NANCY HUMPHREY

CANBY ROBINSON SOCIETY'S

Save

25TH ANNIVERSARY

CELEBRATION

this

SATURDAY, MAY 17

date!

COCKTAILS AT 7 P.M.

DINNER AT 8 P.M.

Making a Difference in Medical Education

When Frank Boehm arrived at Vanderbilt Medical School in early September 1961, he knew that his father had made a commitment to cover his medical school tuition. His father could not, however, afford to pay living expenses, room and board, and books. That would have to be Frank's responsibility. He quickly located five separate jobs that included everything from running blood samples back and forth to the lab to teaching youth at the local Temple. Now some 38 years later, Dr. Frank Boehm is still working hard as professor of obstetrics and gynecology and director of Maternal/Fetal Medicine at Vanderbilt University Medical Center. He is also chair of the Medical Center's Ethics Committee.

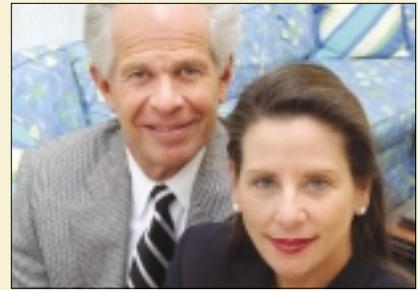
Medicine is his life and making it possible for another young physician to attend Vanderbilt is the reason why he and his wife Julie decided to include the Frank & Julie Boehm Endowed Medical School Scholarship in their will.

"I feel like I am paying back Vanderbilt Medical School for the education I received and the wonderful career I have been able to enjoy in academic medicine at this institution," Boehm said.

Making a difference in their

community has not just been a passing commitment – but a calling. Julie worked for 19 years at her family-owned business, Cumberland-Swan, Inc. until it was sold in 1993. It was then she assumed the role of a community volunteer and took that commitment to a whole new level. She holds numerous civic and community positions and has chaired many Nashville fund-raising events. She is actively involved in non-profit organizations ranging from the Nashville Symphony Association's Board of Directors and The Women's Fund of The Community Foundation, to the National Council of Jewish Women. She currently serves as co-chair, with Chancellor Gordon Gee, of the 32nd Annual Human Relations Awards Dinner benefiting the NCCJ (National Conference for Community & Justice).

In addition to their commitment to the Medical School, the Boehms have also championed the cause of nursing education. In the early 1990s, Julie followed in the footsteps of her mother, Dorothy Goldstein, and became involved with the Vanderbilt University School of Nursing, where Mrs. Goldstein had been an active volunteer for many years before her death in 1986. In 1994, the Boehms named



Dr. Frank and Julie Boehm

the Nursing School's student lounge in honor of Julie's mother. They also established a scholarship in her name to celebrate her commitment to the school. "I told Frank that I would support a scholarship for the School of Medicine if we could do the same for the nursing school – and he wholeheartedly agreed," she said. "We both hope that we can make a difference in the lives of students for years to come and that these scholarships will provide each recipient with the freedom to choose a field of medicine they feel most passionate about rather than basing their decision on debt load."

The Boehms said they needed to make some estate decisions and realized that through careful planning this gift was possible.

"We wanted to experience the joy of letting Vanderbilt know during our lifetime that they could count on this support in the future," Boehm said. **CRS**

– SARAH REYNOLDS

Director of Development

Vanderbilt University School of Medicine

Lola Blackwell, international equestrienne

Vanderbilt School of Medicine has a long tradition of accepting well-rounded students to its program. One such student is Lola Blackwell, a Canby Robinson Scholar and international equestrian champion.

Blackwell, a second-year

student, started riding horses when she was 3 years old. A native Nashvillian, she spent her childhood around the horses that her mother boarded. Blackwell has participated in three-day Eventing competitions since she was 12, recently competing in her fifth interna-

tional championship and earning her first international win.

Eventing is a type of triathlon on horseback. There are three tests held over several days including Dressage, a test of precision, accuracy, and equitation; Speed and Endurance, the heart of the sport where one

is tested over a grueling two-hour course; and Stadium Jumping, a high course of jumps in the ring which must be jumped fast and clean. Blackwell recently competed in the Midsouth International 3-Day Event and won the

(cont. on p. 36)



Dr. John Alan Zic

Dr. John Alan Zic, MD'91, is an assistant professor of Medicine in the division of Dermatology at Vanderbilt University Medical Center. He was one of the first two CRS scholars. After receiving his medical degree from Vanderbilt, Zic completed his internship in Medicine at the University of Chicago Hospital and his postgraduate training in Dermatology at Chicago Hospital at the University of Illinois.

After joining the division of Dermatology in 1995, he established the Vanderbilt University Cutaneous Lymphoma Clinic. He is also an active member of the medical school admissions committee and academic programs committee.

He and his wife, Mary, have a son, John Jr., 14, and an eight-year-old daughter, Jessica.

"My fondest and most vivid memories as a CRS scholar are of the CRS annual dinners. I remember thinking 'wow, if they only knew the impact of their generosity.'" Zic said.

"Without the scholarship, I would have likely matriculated at my state medical school. It is difficult to know if I would be in academia right now without the CRS scholarship. Frankly, I doubt it."



Dr. John Alan Zic and wife, Mary.

Dr. Michael Alan Burke

Dr. Michael Alan Burke, MD'91, along with Zic, was one of the first two CRS scholars. He specializes in the diagnosis and treatment of hand and upper extremity conditions with Sutton Orthopaedics and Sports Medicine, a group with two offices, in Stockbridge and Fayetteville, Ga., near Atlanta. After leaving Vanderbilt he spent five years at the University of Connecticut for his residency training in both surgery and orthopaedic surgery, then served a hand and microsurgery fellowship at the Christine M. Kleinert Institute for Hand and Microsurgery in Louisville, Ky. from 1996-1997.

"The CRS scholarship enabled me to come to Vanderbilt," Burke said. "My parents were teachers in Columbus, Ohio. Without the scholarship, it would have been impossible for me to attend Vanderbilt. It was a wonderful opportunity, a wonderful school, and a great experience."

Burke and his wife, Meg, have three daughters, Kaitlin, 6, Abigail, 4, and Caroline, 1. **CRS** - NANCY HUMPHREY



Dr. Michael Alan Burke

For more information about the Canby Robinson Society, contact Missy Eason, Director of Donor Relations, Vanderbilt University Medical Center, D-8223, Medical Center North, Nashville, Tenn. 37232-2106, (615) 343-8676 or 8677, fax (615) 343-0809, e-mail: missy.eason@vanderbilt.edu

International Championship against professionals and amateurs, men and women and in all age groups and was the highest placed amateur and senior.

"The horse I rode is still very young and inexperienced, so I was very surprised and excited that we won," she said.

Equally surprising is how Blackwell manages to train and compete and still be a full-time medical student. She rides six days a week, four hours a day, sometimes riding under the lights late at night. She competes an average of 14 weekends a year and is often out of town for three to 10 days at a time.

"It's been tricky, but for the most part, it works out really well," she says of her demanding schedule. "I actually had a huge pathology mid-term exam the day after the Event, so I was pretty stressed the entire time, but my professors were very helpful in terms of getting me the material I needed while I was out of town and rescheduling the midterms I missed."

Blackwell says that her being able to ride during medical school was a big part of her decision to come to Vanderbilt. Receiving the Canby Robinson Scholarship was icing on the cake.

"Vanderbilt is very supportive of its students' outside interests, encouraging us to follow our passions," she said.

Dr. Bonnie M. Miller, associate dean for Medical Students, said that giving Vanderbilt medical students the opportunity to pursue dreams is part of what makes VUSM students so satisfied with their education.

"Our students come to us as full, three-dimensional people with ideas and talents that make them interesting and make this school an interesting place. We want them to remain three-dimensional during their tenure at Vanderbilt."

Blackwell plans to continue riding and competing throughout medical school, but acknowledges that she may have to scale back as she begins to spend more time in the hospital with patients. "School is my first priority," she said. **CRS**

-KATHLEEN WHITNEY



JOHN E. CHAPMAN, M.D.

*Associate Vice-Chancellor
for Medical Alumni Affairs*

alumni journal

The transition to this job was a natural and logical continuation of my relationship with the 3,317 students I graduated during my 25-year tenure as Dean of Medicine. I have the same pride in you and your accomplishments that your families do, and there is nothing I enjoy more than receiving a note from a graduate. I take pleasure in learning of your achievements, both personally and professionally, and I know that your classmates enjoy hearing about your activities, as well. Please let my office know if you've married, had a child, received an award or honor, retired, or even just gone on an interesting vacation. You can e-mail the office of Medical Alumni Affairs at medalum@vanderbilt.edu or return the postcard in this magazine to Medical Alumni Affairs, D-8200 MCN, Nashville, TN 37232-2106.

MEDICAL ALUMNI TRIPS

The Medical Alumni Association is offering a trip this summer to the Tuscan region of Italy from June 25 to July 3. The trip includes visits to Cortona, Siena, Perugia, Assisi, Florence, Montepulciano, and an optional post-trip extension to

Rome. A Scandinavian alumni trip, together with the undergraduate school, is also being offered this summer from July 21 to 29. This includes visits to the Danish cities of Roskilde, Koge, Haslev, and Copenhagen, and the Swedish cities of Helsingborg, Lund, and Malmo. The cost is \$2,595, and the deadline is May 7. Please contact our office at 800-288-0266 for more information.

VANDERBILT MEDICAL ALUMNI WEB SITE

It is important for us to stay on top of current technology, especially when it relates to maintaining relationships with our alumni. With help and advice from three current VUSM students, Rahul Nayak, Bill Pidwell, and Danielle Boudreau, we are beginning the process of upgrading our Web site and adding features that would be of greater benefit to our alums. The new and improved Web site is scheduled for completion later this year and will not only have a new look and feel, but will also feature a comprehensive alumni search where you can find old friends and classmates.

MEDICAL ALUMNI REGIONAL DINNERS: 2003

Our regional alumni dinners will begin again this spring, and we are looking forward to seeing graduates, residents, and former fellows and faculty from around the country. We will be holding dinners in Boston, New York City and Chicago. Dates

for these events will be posted on our Web site at www.mc.vanderbilt.edu/alum-affairs when they are available, and alums who live in those regions will receive more detailed information through the mail. I hope you will join us to reminisce about our times at Vanderbilt and allow us an opportunity to update you on the current activities and goals of the medical center.

FAREWELL TO DR. GEORGE W. HOLCOMB JR.

Dr. Holcomb retired last December after serving as the Executive Director of Medical Alumni Affairs for nine years. His ideas and initiatives improved our department and our service to you, as the alumni. His hard work and dedication are missed, but his contributions continue to shape this department. ♥

Faculty News • Alumni News

Faculty News

Dr. Carlos L. Arteaga, Ingram Professor of Cancer Research and professor of medicine and Cancer biology, is the 27th recipient of the Richard and Hinda Rosenthal Foundation award to recognize research that has made or promises to make a notable contribution to improved cancer care. He becomes the second Vanderbilt-Ingram Cancer Center physician-scientist in as many years to be recognized with this award from the American Association for Cancer Research (AACR). Arteaga specifically has contributed to the understanding of the role of signaling by transforming growth factor beta and receptors of the epidermal growth factor family in breast cancer development and progression. Last year's recipient was Dr. Raymond N. DuBois Jr. Mina Cobb Wallace Professor of Gastroenterology and Cancer Prevention. He was honored for his contributions to understanding COX-1 and COX-2 in cancer prevention and treatment.

Fred H. Bess, Ph.D., has received the Jerger Career Award for Research in Audiology from the American Academy of Audiology. Bess, professor and director of Hearing and Speech Sciences has been recognized with several awards including ASHA Honors of the Association, Fellow of the ASHA, Distinguished Alumnus Award from Carthage College, and DiCarlo Award for Outstanding Clinical Achievement in Tennessee. He has been a faculty member since 1976.

Arthur F. Dalley II, Ph.D., professor of Cell and Developmental Biology, has been chosen a 2003 Honored Member by the Executive Council of the American Association of Clinical Anatomists.

Dr. Jayant K. Deshpande, professor of Pediatrics and Anesthesiology, has been named medical director of the new Vanderbilt Children's Hospital Performance Management and Improvement Program.

Dr. Terence S. Dermody, professor of Pediatrics and Microbiology and Immunology and director of the Elizabeth B. Lamb Center for Pediatric Research, has been named associate director of the Vanderbilt Medical Scientist Training Program (MSTP). Dermody will become director of the MSTP this spring when Dr. David Robertson, Elton Yates Professor of Autonomic Disorders and director of the Clinical Research Center, steps down. The MSTP provides students with training in both medicine and science. Successful completion of the program leads to both M.D. and Ph.D. degrees.

T. Mark Hodges, professor of Medical Administration Emeritus and former director of the Annette and Irwin Eskind Biomedical Library, was the moderator of a session marking the 25th anniversary of the founding of the Association of Academic Health Sciences Libraries (AAHSL). The session – "Looking Back" – was part of the 25th annual meeting of AAHSL held in conjunction with the 113th annual meeting of the Association of American Medical Colleges (AAMC) in San Francisco. Hodges is a charter member of the AAHSL.

Dr. Harry R. Jacobson, vice chancellor for Health Affairs, has been named president-elect of the Society of Medical Administrators. The appointment was announced at the January meeting of the society. Jacobson, currently the treasurer of the society, will assume the presidency of the 100-member organization in 2005. He has also been named to the Board of Directors of the Association of Academic Health Centers.

Dr. David H. Johnson, deputy director of the Vanderbilt-Ingram Cancer Center, will become president of the American Society of Clinical Oncology on June 1. Johnson, Cornelius Abernathy Craig Professor in Medical Oncology and director of the Division of Hematology-Oncology, will serve as president-elect for one year, then will succeed Dr. Margaret A. Tempero of the University of California-San Francisco as president in 2004.

Jeff Kaplan has been named associate vice chancellor for Health Affairs. He will oversee strategic development, construction/space and facilities management, parking, health care contracting, regional health care network development and the Center for Health Services. He will also be the VUMC liaison to the Vanderbilt University department of Human Resources and will work on a variety of projects for Vice Chancellor for Health Affairs Dr. Harry R. Jacobson. Kaplan, whose career includes more than 13 years experience in university administration, was most recently executive vice president with St. Thomas Health Services, which runs Nashville's St. Thomas and Baptist hospitals.

Dr. John A. Oates Jr., Thomas F. Frist Professor of Medicine, recently delivered the John McCoy Lecture at Northside Hospital in Atlanta. Oates' topic was "Expanding Insights into Cyclooxygenase Inhibition (COX-2 Inhibitors): From Willow Bark to the Coxibs."

Dr. C. Wright Pinson, H. William Scott Professor and chairman of the Department of Surgery, surgical director of the Vanderbilt Transplant Center, and chief of Staff of Vanderbilt University Hospital, has been elected president of the American Hepato-Pancreato-Biliary Association. He will lead the group of internationally known hepatobiliary, liver transplant and pancreatic surgeons and radiologists until 2005. The AHPBA, made up of 1,000 members, is the voice of the hepato-pancreato-biliary surgeons in the Western Hemisphere.

Dr. Samuel A. Santoro, MD'79, will join the Vanderbilt faculty as chair of the Department of Pathology in May. Santoro has been director of the Division of Laboratory Medicine and Conan Professor of Laboratory Medicine and Professor of Pathology & Immunology and Medicine at Washington University School of Medicine in St. Louis. Santoro has also been named Dorothy B. and Theodore R. Austin Professor of Pathology at Vanderbilt. Santoro received both his M.D. and Ph.D. degrees from Vanderbilt.

The 2003 Faculty Awards for Excellence in Teaching and Outstanding Contributions to Research

The 2003 Faculty Awards for Excellence in Teaching and Outstanding Contributions to Research were presented at the Spring Faculty Meeting. The awards, presented by the faculty, recognize excellence in teaching and research.

School of Medicine 2003 Excellence in Teaching award recipients are:

Alumni News

'64

Dr. Robert E. Lawler, MD'64, HS'65-'67, has been appointed to the board of directors of BICO, a medical device and environmental service company. Lawler spent two years in the U.S. Air Force where he served as chief of the radiology department at Sheppard Air Force Base in Texas. He worked in private practice in Rockledge, Fla. from 1970 until he retired in 1990. He will also serve on the board of BICO's ViaCirq Inc. subsidiary.

'73

Dr. Michael G. Sribnick, MD '73, HS'73-75, has joined Dillon Medical Associates in Dillon, S.C. Prior to moving to Dillon, he practiced in Columbia and the Charleston area. His wife, Martha, is a pediatrician in Columbia. Sribnick practiced for more than 25 years in Columbia, and served as chief of Medicine at Providence Hospital in Columbia.

'96

Dr. Mary Anne Finney Anderson, MD'96, HS'96-'00, married Austin Anderson on June 8, 2002. She is currently in a private ob/gyn practice in Nashville.

'98

Dr. Steven M. Lilly, MD'98, has finished a residency in internal medicine at the University of Texas Southwestern in Dallas. He is now assistant professor in the internal medicine department and works primarily in the Veteran's Hospital.

'01

Dr. Stephanie A. McAbee, MD'01, married Dr. Christopher J. Keefer, MD'01 on Oct. 5, 2002 in Sewanee, Tenn. They are completing residencies at Washington University in St. Louis and plan to return to Vanderbilt in July 2004. McAbee will pursue training in Gastroenterology, and Keefer in Pediatric Infectious Diseases.



ANNE RAVNER POLLO

Xachary Irving, right, interviews Dr. Tim Myers for an upcoming series on The Learning Channel (TLC) highlighting VUMC. The series, which will run on Monday evenings this fall, will be told through the eyes of VUMC's residents and fellows, and offers viewers a comprehensive look at what it takes to be a physician in training in today's highly specialized, highly competitive environment. New York Times TV is filming all 13 of the debut season's hour-long episodes at VUMC.

Dr. G. Roger Chalkley, professor of Molecular Physiology and Biophysics, professor of Biochemistry, senior associate dean for Biomedical Research, Education, and Training – Innovation in Educational Programming That Has Proven to be Effective.

Paul A. Chang, research assistant professor of Cardiac and Thoracic Surgery – Mentoring Graduate and/or Medical Students in the Research Setting.

Dr. Marie R. Griffin, professor of Preventive Medicine, professor of Medicine – Mentoring Postdoctoral Fellows in the Research Setting.

Dr. Donald H. Rubin, professor of Medicine, professor of Microbiology and Immunology – Teaching Medical or Graduate Students or Practicing Physicians in the Small Group Setting.

Dr. Arthur P. Wheeler, associate professor of Medicine – Teaching Medical Students, Residents, and/or Fellows in the Clinical Setting

Dr. Keith D. Wrenn, professor of Emergency Medicine, associate professor of Medicine – Teaching Medical or Graduate Students or Practicing Physicians in the Lecture Setting.

2003 Outstanding Contributions to Research Awards include:

Heidi E. Hamm, Ph.D., Earl W. Sutherland Jr. Professor of Pharmacology and Chair of the Department, professor of Ophthalmology and Visual Sciences, Stanley Cohen Award – For Research Bringing Diverse Disciplines, such as Chemistry or Physics, to Solving Biology's Most Important Fundamental Problems.

Christopher V. E. Wright, D.Phil., professor of Cell and Developmental Biology, Sidney P. Colowick Award – For Research That Serves as a Platform for Discovery in Diverse Areas.

Dr. Kathryn M. Edwards, professor of Pediatrics, William J. Darby Award – For Translational Research That Has Changed the Practice of Medicine Worldwide.

Dr. Harold L. Moses, Benjamin F. Byrd Jr. Professor of Clinical Oncology, professor of Cancer Biology, Pathology, and Medicine, John H. Exton Award – For Research Leading to Innovative Biological Concepts.

William D. Dupont, Ph.D., professor of Preventive Medicine (Biostatistics), and **Dr. David L. Page**, professor of Pathology, professor of Preventive Medicine, Ernest W. Goodpasture Award – For Collaborative Studies That Address Important Biological Problems and Their Role in Disease Pathogenesis.

Dr. Dan M. Roden, William Stokes Professor of Experimental Therapeutics, professor of Medicine and Pharmacology, Grant W. Liddle Award – For Outstanding Contributions in Clinical Research.

Randy D. Blakely, Ph.D., Allan D. Bass Professor of Pharmacology, Charles R. Park Award – For Basic Research Revealing Insights into Physiology and Pathophysiology.

In Memoriam



Dr. William G. Crook, HS'47, a physician in Jackson, Tenn., died from complications of a stroke on Oct. 21. He is survived by his wife, Betsy, three daughters, and several grandchildren.

Dr. John E. Fryer, MD'62, died Feb. 21 at Albert Einstein Medical Center in Philadelphia. A resident of the Germantown section of Philadelphia for many years, Fryer, a psychiatrist, was 65. He gained notoriety in 1972 for wearing a wig and full face mask and speaking as Dr. H. Anonymous before the American Psychiatric Association, admitting he was a homosexual. He spoke through a voice-distorting microphone and described the difficulties of trying to practice in a field that at the time listed homosexuality as a mental illness.

Dr. Richard McEwen German, MD'43, died Nov. 18. He was 84. German, a physician and surgeon, had practiced in Oak Hill, W. Va. He is survived by his wife, Marjorie, two daughters, Marjorie and Mary Alice, a son, Richard III, four grandchildren and two great-grandchildren.

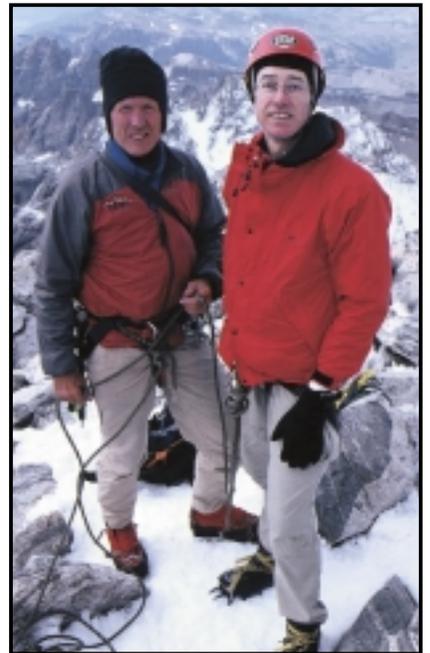
Dr. James W. Johnson, MD'58, HS'58-'61, CF'66-'89, died March 9. After completing his residency at Vanderbilt, he was a practicing ob/gyn in Nashville for more than 30 years. While at Vanderbilt he received the Shovel Award from the medical school in 1968. He is survived by sons, Robert and Joseph, daughters, Roberta and Sara, and eight grandchildren.

Dr. Victor A. Najjar, FA'57-'68, died Nov. 30 after a long illness. He was 88. He was former chairman of the Department of Microbiology at Vanderbilt. He held prominent faculty positions at Johns Hopkins, Vanderbilt and Tufts University. In 1952 he discovered a liver defect that bears his name, The Crigler-Najjar Syndrome. He is survived by three children, Jennifer, assistant professor of pediatrics at VUMC, Julie and Victor, and seven grandchildren.

Dr. Joseph D. Robertson Sr., HS'53, died on Aug. 25, 2002. He was 78. Following his residency at Vanderbilt, he practiced medicine in Nashville for 25 years. He was a founding member of Miller Medical Group and Edgefield Hospital. He served for eight years as medical director of Saint Thomas Hospital School of Nursing, 15 years as a Physician to RCA recording studios on Music Row and 15 years as a drummer and co-founder of the Doctor's Orchestra of Nashville. He is survived by his wife, Faye, a son, Joseph, stepdaughters, Deborah, Penny, and stepsons, Joseph, and two step grandsons.

Dr. George M. Watkins Jr., MD'60, HS'61, died on March 10 in Tampa. He was 67. Watkins was a retired professor of Surgery and devoted his career to academic medicine. He served on the faculties of the departments of surgery at the Universities of Connecticut, Southern Florida and Illinois-Peoria. He was a founding member and past president of the American Trauma Society. He is survived by his wife, Alison and daughters Laura and Erica.

Dr. John T. Cobb (MD'78), right, poses with guide Peter Lev in at the summit of Grand Teton in Grand Teton National Park (13,770 feet). Cobb, of Atlanta, completed the two-day climb in September after basic and intermediate mountaineering instruction.



Dr. Vernon E. Wilson's contributions to VUMC were honored at a celebration at the Parthenon hosted by Dr. and Mrs. Harry R. Jacobson and Mr. and Mrs. Nelson C. Andrews. Beside a portrait of Dr. Wilson displayed at the reception are, left to right, Will Wilson, grandson; Laura Wilson, daughter-in-law; Bill Wilson, son; and Jenny Wilson, granddaughter.

TOMMY LAWSON



J. P. Olarte is hugged by Brent and Morgan McDonald as his wife, Megan, looks on. Olarte is going to the University of North Carolina Hospital in Chapel Hill.



Doreen Ray, who is going to Mt. Sinai Hospital in New York City, is congratulated by her classmates.

match day 2003

PHOTOS BY DANA JOHNSON



Boris Pavlin celebrates his residency match at Yale-New Haven Hospital in Connecticut.



Jeff Stark, who will serve a residency at Emory University in internal medicine, celebrates with his wife, Alicia, and baby William.

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