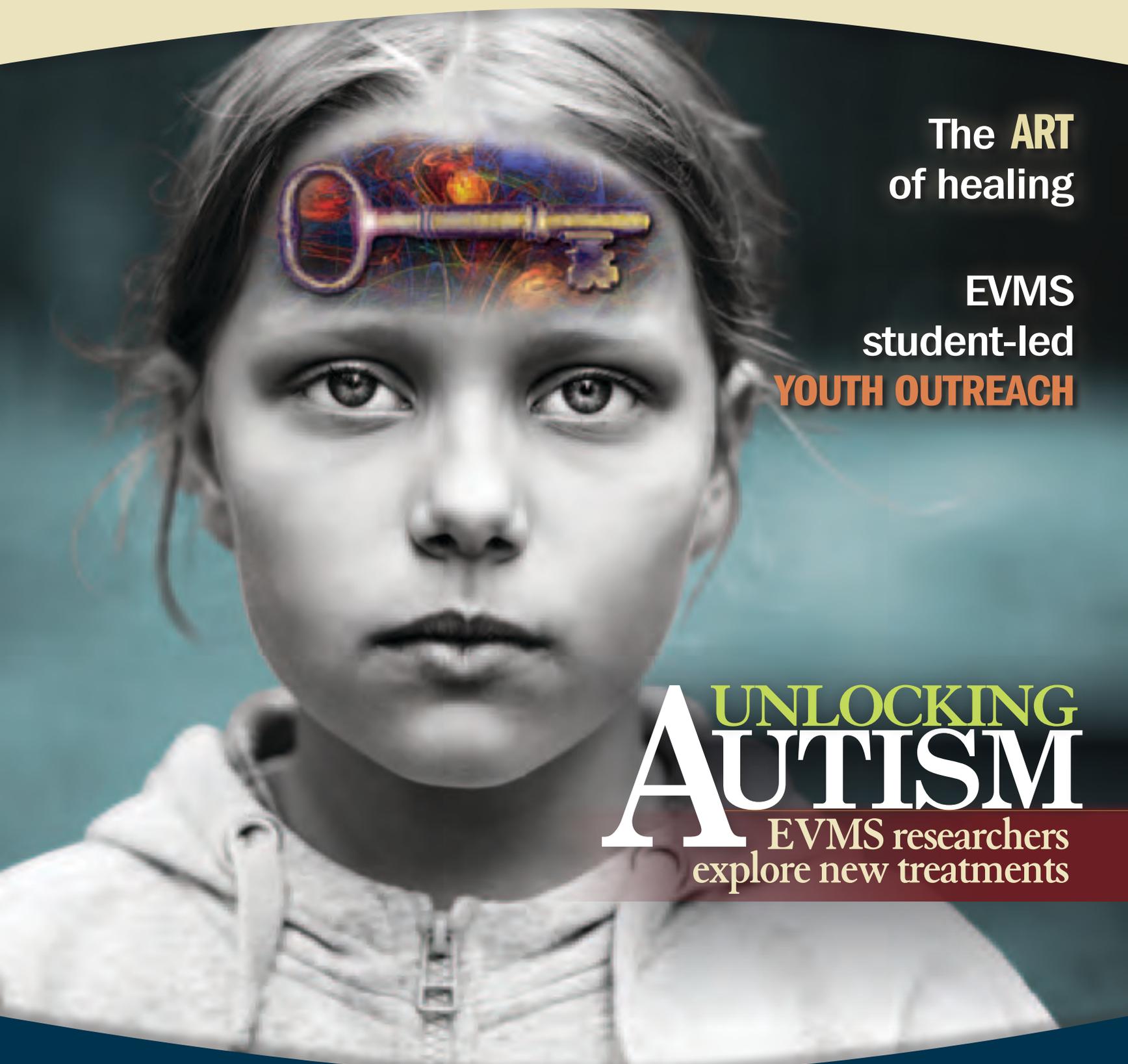


TEACHING. DISCOVERING. CARING.™

The **ART**
of healing

EVMS
student-led
YOUTH OUTREACH

UNLOCKING
AUTISM
EVMS researchers
explore new treatments



credits

Harry T. Lester
President

Gerald J. Pepe, PhD
Dean

Claudia E. Keenan
Chief of Staff

EDITORS

Vincent Rhodes
Editor-in-Chief
Director of Marketing & Communications

Doug Gardner
News Director

Jina Gaines
Account Executive

Annie Panno
Account Executive

Daniel Shuman
Account Executive
Photo Editor

EDITORIAL BOARD

Melissa Lang
Director of Alumni Relations

Connie Hedrick
Director of Development

Theresa Hamlin
Director of Marketing
EVMS Health Services

John Comerford, Joy Ellinor
Art Directors

Kerry Jones, Craig Kimberley,
Kim Lewandowski
Office of Marketing & Communications

Serena Amerson, Denise Cohan, Megan
Christopher, Chris Dagley
Office of Development

Julianne E. Heath
Paige B. Scheinberg
Students

Cammi Mosiman
Graphic Designer

CONTRIBUTORS

Jessica Carlson
Alison Johnson
Jason Liebler
Joy Vann
Stacey Webster

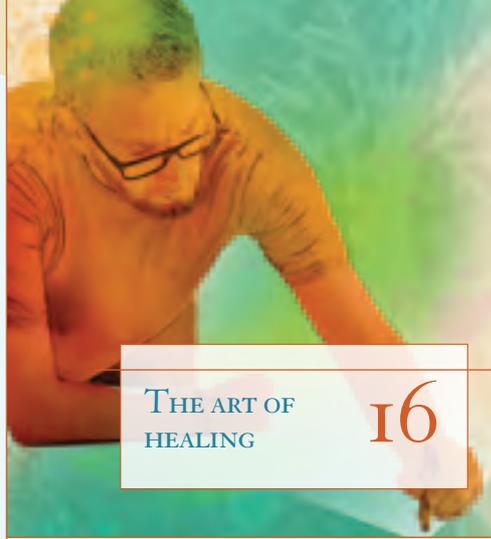
EVMS Magazine, the flagship publication for Eastern Virginia Medical School, is published three times a year. Copies are available on campus, in Hampton Roads doctors' offices and by mail. To request a copy of this issue, suggest a feature story or share EVMS news for consideration, please contact Doug Gardner, News Director, at 757.446.7070 or gardneda@evms.edu.

EVMS

Eastern Virginia Medical School

P.O. Box 1980
Norfolk, VA 23501-1980

2 | SPRING 2011 | WWW.EVMS.EDU



THE ART OF
HEALING

16



Cover Story

UNLOCKING
AUTISM

22

departments

4

News

Glennan Center welcomes new director □ Students open Virginia's first student-run free clinic
□ Grant supports development of virtual medical office □ Child born from 20-year-old frozen embryo
□ Diabetes physician receives \$1 million grant to study link to obesity
□ Dermatologist diagnoses laptop-induced skin condition □ Pediatrics grant enhances training and public-health education □ EVMS researchers employ new tactics in battle against sepsis

10

Around Campus

World impact: international outreach efforts □ MSV award winners □ Technology offers a way to teach anatomy □ EVMS physicians save an employee's life

15

To Your Health

Say what? Hearing loss: more common than you may think

34

Alumni

Group supports aspiring minority health professionals □ Alumni Relations seeks feedback on proposed Black Alumni Chapter □ EVMS alum brings new smiles to children in Kenya
□ Inaugural EVMS White Coat Retirement Ceremony wins AAMC award

36

Philanthropy

Community partners support EVMS □ EVMS hosts first annual Scholarship Reception
□ Bacteria expert delivers Mansbach Lecture □ Dr. Mohit Bhasan discusses "Unraveling the Aorta" at Drew Lecture

41

Upcoming

Graduation □ EVMS Charity Golf Classic □ Cookout for the Cure □ Coach Ray Barlow Memorial Golf Tournament □ Wine, Women & Fishing □ Education and research building dedication ceremony

42

In FOCUS

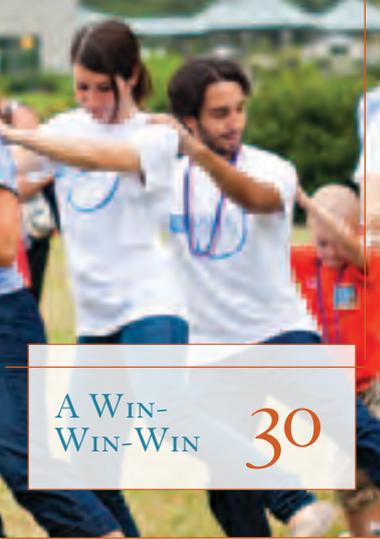
Match Day □ Campus Visitation Day □ Scholarship Reception □ Mansbach Lecture
□ PA White Coat Ceremony □ Dr. Martin Luther King Jr. Day Celebration



Subscribe to EVMS Magazine – it's FREE!

Go to www.EVMS.edu/magazine

or scan the barcode using your smart phone and any QR Reader app.



A WIN-WIN-WIN 30



35 EVMS White Coat Retirement wins award

EVMS BOARD OF VISITORS

John P. Rathbone
Rector

Maurice A. Jones
Vice Rector

Anne B. Shumadine
Secretary Treasurer

Frank Batten, Jr.
Rosemary Check
Randolph J. Gould, MD
Derwin P. Gray, MD
James J. Izard, II
James V. Koch, PhD
Christina W. Prillaman, MD
Robin D. Ray
P. Ward Robinett, Jr.
John O. Simpson, PhD
Kenneth W. Stolle
Bruce L. Thompson
Theresa Whibley, MD
Richard C. Zoretic

EVMS FOUNDATION BOARD OF TRUSTEES

G. Robert Aston, Jr.
Chairman and President

Vincent J. Mastracco, Jr., Esq.
Treasurer

Andrew S. Fine
Secretary

R. Bruce Bradley
L.D. Britt, MD, MPH
Paul J. Farrell
Charles P. Fletcher, DDS
The Honorable Paul D. Fraim
Thomas R. Frantz, Esq.
Richard S. Glasser, Esq.
Robert C. Goodman, Jr., Esq.
Edward L. Hamm, Jr.
Paul O. Hirschbiel, Jr.
Charles W. Moorman
Priscilla Trinder Roady
Thomas V. Rueger
Toy D. Savage, Jr., Esq.
Alan L. Wagner, MD
Stanley Waranch
Wayne F. Wilbanks
John O. Wynne

from the president



As you know, we are making historic investments in the future of the school, and this spring, in particular, has heralded significant growth and change for EVMS.

We are making progress toward the goals outlined in our strategic plan. A major component of these efforts is the implementation of EVMS' first comprehensive marketing campaign. We will no longer be the "best-kept secret in Hampton Roads." Our efforts started with the launch of this magazine. Now, you can see billboards, print ads and television commercials sharing what great work EVMS is doing in the community and how we are impacting health care. I hope you are as proud of our accomplishments as we are.

One way we make a difference is by reaching out to people in need both here at home and abroad. EVMS students participate in youth-education initiatives throughout Hampton Roads (see page 30), and our faculty, staff and students bring desperately needed health care to some of the world's poorest nations (see page 10).

Our research and education programs also contribute to the health of our region — whether exploring treatments for autism spectrum disorders (see page 22) or training the next generation of caregivers in our nationally known Art Therapy and Counseling Program (see page 16).

All our accomplishments are made possible through your support. Thank you.

Harry T. Lester

President

Teaching. Discovering. Caring.™

New director wants to strengthen Glennan Center ties to community

Robert M. Palmer, MD, a national leader in geriatrics and geriatric safety, joined Eastern Virginia Medical School in February as professor of internal medicine and director of the EVMS Glennan Center for Geriatrics and Gerontology.

A former head of geriatrics at the Cleveland Clinic, Dr. Palmer comes to the school from the University of Pittsburgh, where he was the clinical director of geriatric medicine and gerontology and vice-chair for quality improvement and patient safety in the Department of Internal Medicine. His innovations in education, research and clinical care have influenced geriatric care in the U.S. and abroad.

“Dr. Palmer brings unique and unmatched qualifications to his position as director of the Glennan Center,” says Jerry L. Nadler, MD, chair of internal medicine and the Harry H. Mansbach Endowed Chair in Internal Medicine.

Dr. Palmer, who also holds the John Franklin Chair in Geriatrics at EVMS, says the central focus of the Glennan Center is to help older patients maintain their physical independence and enjoy optimal quality of life.

For clinical care, that means an emphasis on collaboration. For instance, Dr. Palmer’s vision is to establish multidisciplinary teams for assessing and managing chronic conditions, particularly among patients who have been hospitalized many times.

In education, Dr. Palmer wants to enhance the curriculum and “infuse geriatric principles of practice” into other specialties that care for elderly patients. “The challenge is to offer students

a meaningful experience in geriatric medicine,” he says.

Dr. Palmer also wants to build the center’s research programs, targeting funding sources such as foundations and the National Institutes of Health.

Dr. Palmer says he was attracted to EVMS because of the Glennan Center’s reputation as a leader in the community as an advocate for geriatric patients and research. “The selling point was the collegiality that I sensed immediately with faculty and administrators,” he says, “along with the obvious commitment to excellence in geriatric care.

“Ultimately, what got me most excited about EVMS was the opportunity to take advantage of the wonderful relationships, both historically and continually, that EVMS has with the community. It is clearly a built-in, hard-wired mentality to be engaged with the community,” Dr. Palmer says.

“With geriatrics, in particular, it’s important to interact with local agencies and organizations in the community,” he says. “For instance, we have great opportunities to partner with our local health systems, such as Sentara, to improve transitions of care for the elderly.”

Dr. Palmer earned his medical degree from the University of Michigan. He completed his residency and served as chief resident at the Los Angeles County-University of Southern California Medical Center. He completed a fellowship in geriatric medicine at the University of California, Los Angeles, where he also earned a Master of Public Health degree.

Early in his career, Dr. Palmer demonstrated a dedication to patients. Fresh from his residency training, he created a network of ambulatory health centers in the San Gabriel region of Los Angeles. He also established a blood-pressure screening and referral program in a nearby medically underserved community.

Dr. Palmer has been a highly productive researcher and scholar. He was the principal investigator on a landmark study of an intervention, the Acute Care for Elders (ACE) Unit, that is shown to enhance the health outcomes of hospitalized older patients and has been widely adopted in the U.S., Canada and Europe.

Dr. Palmer also has had extensive experience in education. He has played a leading role in curriculum development for medical students, residents and fellows in both primary care and geriatrics.

He has held a variety of positions at prestigious universities and medical centers across the country. In addition to his posts at the University of Pittsburgh and the Cleveland Clinic, he has served on the faculties at the University of Southern California, the Oregon Health Sciences University and Case Western Reserve University. He is board certified in internal medicine and geriatric medicine.

“Providing thoughtful, compassionate care to our aging population and using the latest research in age-related illnesses are priorities at EVMS,” Dr. Nadler says. “Our students and the community will benefit greatly from Dr. Palmer’s guidance and experience.” □



Bruce S. Britton, MD, associate professor of clinical family and community medicine, examines a patient alongside first-year medical student Aileen X. Wang and third-year medical student Christine Nguyen-Buckley.

EVMS students **BRING HOPE** *to Norfolk residents*

Eastern Virginia Medical School students recently took one more step toward fulfilling the school's vision of being the most community-oriented medical school in the nation with the opening of the state's first student-run free clinic.

The Health Outreach Partnership of EVMS Students (HOPES) Clinic also is the first no-fee clinic in the City of Norfolk. Located on the first-floor of the Norfolk Public Health Building at 830 Southampton Avenue, HOPES Clinic is by appointment only and open Thursday evenings 6-9 p.m. EVMS students, residents and faculty physicians staff the clinic.

Caitlin Valentino, MD Class of 2012 and student director of HOPES Clinic, saw the need to offer medical assistance to the nearly 15 percent of Norfolk residents who are uninsured.

"HOPES Clinic gives students a chance to practice medicine in a way that embodies so many of the reasons we came to medical school in the first place — community outreach, service

to others and helping those people most in need of our help," she says.

The clinic, made possible with the help of the City of Norfolk and the Virginia Department of Health, features a reception area, four exam rooms and two rooms for private patient interaction. The student-led teams pair third- and fourth-year medical students with first- and second-year students and are overseen by attending faculty physicians and residents.

"It is a good opportunity to share what I've learned in my experiences with some of the younger medical students while being able to participate in decisions about patients' treatment," says fourth-year medical student Nathan S. Lanham.

Patients are eligible to be seen at the clinic if they are uninsured (no Medicaid, Medicare, or private insurance), meet income guidelines, are residents of the City of Norfolk and are between



HOPES Clinic is led by EVMS students (left to right) Fuad B. Bohsali, Nicole L. Whatley, Caitlin Valentino, Jonathan W. Lee, Daniel C. Parker and Astrid Pilgrim.

the ages of 19 and 64.

"The creation of an EVMS student-run free clinic is a very telling example of the tenacity of EVMS faculty and students to make a healthier Hampton Roads," says Terri W. Babineau, MD, EVMS assistant dean for community outreach and medical director of the HOPES clinic.

For Ms. Valentino, the clinic is an outlet for her desire to help others.

"Experiences like the free clinic continually re-ground my outlook on medical school and life. It's not about the memorizing of facts or the upcoming test, it's about the patients and real-life impact," Ms. Valentino says. □

For more information about the HOPES Clinic, visit www.evms.edu/magazine.

GRANT SUPPORTS DEVELOPMENT OF *'virtual' family practice*

Eastern Virginia Medical School is developing a virtual medical office that will prepare students to help lead the way in 21st-century primary care.

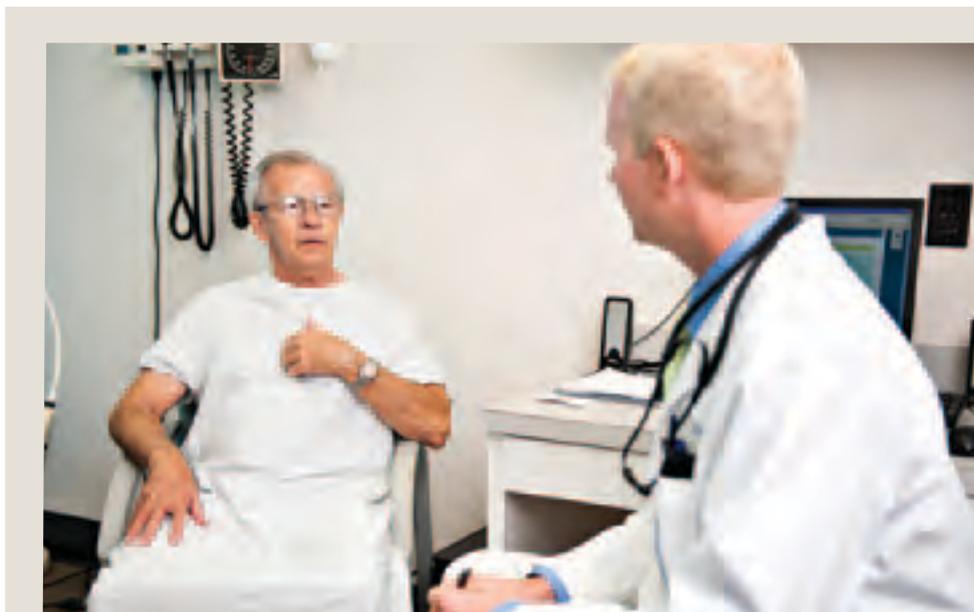
The Predoctoral Education for Advancing Community Health (PEACH) project, backed by a five-year, \$2.1 million federal grant, will create a simulated community-health center where medical students will learn how to manage complicated cases effectively within a busy practice. It will include elements of the latest models of primary care to give students experience that is as close to the real world as possible.

"The goal is to teach not just primary-care medicine, but to teach primary-care practice systems that are necessary to achieve success for the patients," says Bruce S. Britton, MD, associate professor of family and community medicine and PEACH project leader.

Once the program is running, students will go to their simulated medical office to care for standardized patients every week, similar to what they would do in a family-medicine residency.

EVMS' Theresa A. Thomas Professional Skills Teaching and Assessment Center will house the program. The center is renowned nationally for pioneering the use of standardized patients — people specially trained to mimic illnesses and provide detailed feedback to students and doctors.

"It's getting them ready for 21st-century primary



A student works with a standardized patient in the Theresa A. Thomas Professional Skills Teaching and Assessment Center. As part of the PEACH project, students will interact more regularly with standardized patients, as if they were patients of a real family practice.

care," Dr. Britton says. "If they go into primary care, they'll be better prepared. If they go into a specialty, they'll be better prepared to interact with the primary-care physicians that are in their community."

"What we're trying to do is reflect a day in the life of a physician in practice," says Gayle A. Gliva, the center's director. She says some other institutions have training programs that incorporate parts of

a real practice, such as using electronic medical records, but "none are presenting a total picture like this," she says.

The basic framework of the PEACH project stems from the Electronic Health Record Laboratory (EHRL) program led by Christine C. Matson, MD, chair and professor of family and community medicine, and supported by

Continued on page 9

Child born from 20-YEAR-OLD FROZEN EMBRYO

The Jones Institute for Reproductive Medicine at EVMS made history again last year when an embryo frozen for almost 20 years resulted in a healthy baby boy.

The embryo was donated by a couple who underwent a successful in-vitro fertilization treatment in 1990. For nearly 20 years, the embryo remained frozen in storage at the Jones Institute. Sergio C. Oehninger, MD, professor of obstetrics and gynecology and director of the Jones Institute, implanted the embryo into the womb of a 42-year-old woman who was infertile. She gave birth in May 2010.

Jacob F. Mayer, PhD, professor of obstetrics and gynecology and director of the embryology



laboratory at EVMS, and Dr. Oehninger published an article about the case with the patient's doctor.

Drs. Mayer and Oehninger, along with their

colleagues, have been researching the storage time of frozen embryos and its impact on a pregnancy's success. One of their earlier reports, published in 2008, found that the duration of storage showed no effect on the embryo's post-thaw survival and had no impact on pregnancies, miscarriages, live-birth rates or implantations.

The discussion about long-term embryo storage fascinated the world as the case of the 20-year-old embryo quickly spread across the globe. Newspapers and websites from China to the United Kingdom covered the latest medical milestone at EVMS. □

Go to www.evms.edu/magazine to see some of the international news coverage.

Grant helps diabetes researcher study obesity

Yumi Imai, MD, is investigating whether a particular protein may prevent obese people from developing Type 2 diabetes. The National Institutes of Health (NIH) awarded her a \$1.15 million grant to support her work.

Obesity is believed to cause inflammation in fat, liver and muscle — all the places where insulin works, explains Dr. Imai, assistant professor of internal medicine and physician at the EVMS Strelitz Diabetes Center. Obese people require more insulin to regulate their blood sugar. However, inflammation in their fat tissue makes their bodies produce less insulin, and the insulin they do produce is less effective.

But not all obese people develop Type 2 diabetes. Over the next five years, Dr. Imai hopes to learn why.

Her research seeks to understand the process that makes insulin-producing islet cells weaken in some obese individuals but not in others. She suspects the key is a regulatory protein called adipose differentiation-related protein (ADFP)

that facilitates the efficient use of lipids — fatty molecules that the body uses to store energy. There are high lipid levels in fat, and when people are obese, those lipids eventually move into the blood. When that happens, those lipids then circulate throughout the entire body and wreak havoc, Dr. Imai explains.

Obesity is believed to cause inflammation in fat, liver and muscle — all the places where insulin works.

Lipids are not inherently bad, Dr. Imai says, because they help provide the body with energy. “You need a certain amount. You simply should not have too much.”

Her research is based on the theory that ADFP creates a pathway for lipids to flow safely

through islet cells. She thinks that in dangerously overweight people with too little ADFP, lipids can stray from that path and damage the cells over time. This, she says, may lead to poor insulin production and eventually diabetes.

It may be that people who are overweight but don't develop diabetes have naturally high ADFP levels.

“We don't know if increasing ADFP in islets would help prevent diabetes — but it could. That's what we hope to discover with this study,” Dr. Imai says.

ADFP would be a new target for diabetes treatment and prevention, Dr. Imai says. This protein has been studied in the liver and in belly fat as it relates to obesity, but no one has looked at how it works in islets and how that might relate to Type 2 diabetes.

Her research team will use tissue cultures and mouse models to determine what happens when ADFP levels are manipulated and how these are affected by a high-fat diet. □

EVMS dermatologist diagnoses

LAPTOP-INDUCED SKIN CONDITION

When EVMS assistant professor of dermatology Kimberly S. Salkey, MD, first examined a patient with skin discoloration on her legs, she couldn't immediately determine a cause. The patient, a 24-year-old law student, reported irritation and mottling that was slowly spreading on top of her thighs. Under a microscope, the skin looked as if it had been damaged by long-term exposure to the sun.

Then the patient revealed that she used her laptop computer almost six hours every day — a telling clue that allowed Dr. Salkey to peg the diagnosis. The heat of the laptop on the patient's legs had resulted in toasted-skin syndrome, a rare condition caused by prolonged exposure to heat. Clinically named *erythema ab igne*, toasted-skin syndrome also has been seen in people who sit too close to a fireplace for an extended period of time. Dr. Salkey's diagnosis of laptop-induced toasted-skin syndrome is one of just 10 such cases reported in the last six years.

Since laptop temperatures sometimes reach upward of 120 degrees, placing the laptop directly on the skin for a long period of time eventually can cause the skin to burn, similar to sunburn. Dr. Salkey says there are even reports of toasted-skin syndrome leading to skin cancer, although she says it is very rare.

Because of the widespread use of laptops and curious nature of this condition, toasted-skin syndrome brought the international spotlight to Dr. Salkey and EVMS. Dr. Salkey appeared on a segment of "Good Morning America" and was quoted by news organizations around the globe. □



Second-year pediatrics resident Amanda Del Re, MD, left, and Carolyn Moneymaker, MD, director of the Resident Practice Group clinic at Children's Hospital of The King's Daughters, interact with 19-month-old Micah Nixon-Collins following a checkup. EVMS and CHKD work together closely in training the 55 pediatric residents.

Pediatrics grant bolsters EVMS LEADERSHIP IN *public-health education*

An \$800,000 federal grant to enhance the training of future pediatricians reinforces EVMS' leadership role in public-health education.

The five-year grant from the U.S. Department of Health and Human Services' Bureau of Health Professions Health Resources and Services Administration (HRSA) will support efforts in the EVMS Department of Pediatrics to incorporate public-health concepts throughout the three-year pediatric residency. Residents will graduate with a certificate in public health that they can apply toward a full public-health degree.

The grant comes shortly after the Graduate Program in Public Health, a joint effort of EVMS and Old Dominion University, received \$2.5 million to create a statewide public-health training center. The Commonwealth Public Health Training Center aims to develop a highly trained public-health work force.

Department of Pediatrics leaders will work closely with David O. Matson, MD, director of the EVMS/ODU public-health program.

The HRSA-supported training will teach budding pediatricians to look beyond the exam

room to appreciate how home life and other factors can dramatically impact health, says C.W. Gowen, MD, associate professor of pediatrics and director of the EVMS pediatrics residency program.

"We've always wanted the residents to be good pediatricians," Dr. Gowen says. "But at the same time, we want them to go out and be leaders in their community in terms of being able to assess the health-care needs of kids in their community and understand how, as pediatricians, they can effect change.

"Public health is perfect for pediatrics because you're setting the groundwork for the health of the adult," he says. "That's what public health is really all about."

Donald W. Lewis, MD, chair of pediatrics, says the additional training adds another dimension to the residency. "It's a toolbox they will have with them for the rest of their careers," he says.

The additional public-health training will be incorporated into the curriculum gradually over three years. It will include lectures but also a rich

Continued on page 38

Trying a new tack

IN THE BATTLE AGAINST SEPSIS

EVMS researchers are taking aim at one of the most deadly, elusive conditions found in American hospitals: sepsis.

Sepsis, the body's out-of-control immune response to infection, is one of the top causes of death in U.S. intensive-care units. According to the National Institute of General Medical Sciences (NIGMS), sepsis impacts roughly 750,000 Americans each year and kills up to half of them, making it one of the nation's leading killers overall. The cost to fight the quick-striking condition totals nearly \$17 billion annually, the NIGMS reports.

That's where research underway at EVMS comes in. Claretta J. Sullivan, PhD, research assistant professor of surgery, is using state-of-the-art equipment to hone in on a little-understood part of bacteria — membrane vesicles. "Because they're so small, they've been flying under the radar," Dr. Sullivan says.

Two big questions are driving the research: Do vesicles play a role in starting the "protein

cascade" associated with sepsis? If so, can a test be developed to detect vesicles in the blood and catch sepsis at its earliest phase?

Using a tool called an atomic force microscope, Dr. Sullivan is analyzing certain kinds of bacteria often linked to sepsis to see how they produce vesicles and under what conditions they make them. The research team is also interested in the impact of the vesicles on endothelial cells, which line blood vessels and are the first to react to bacterial infection.

While there have been new drug treatments developed over the past century, success has been limited. "Mortality is still roughly 30 or 40 percent if a patient is in septic shock," says L.D. Britt, MD, MPH, Brickhouse Professor, chair of surgery and president of the American College of Surgeons. Dr. Britt established the research program in which Dr. Sullivan is working to address clinical challenges such as sepsis.

The problem is detection. In its earliest stages,



Bacteria make and slough off tiny pieces of cellular material called vesicles from the cell's outermost membrane. In the atomic force microscope, vesicles can be seen on the outside of the cell. For years, vesicles have been identified in autopsies of septic patients. Because of their minute size, however, scientists have not been able to determine whether the vesicles are a cause or effect of sepsis. The problem is that they can't be detected in tests routinely used to identify infectious agents. Fortunately, the development of technology like the atomic force microscope makes it possible to study vesicle activity in living bacteria, giving scientists the opportunity to study processes underway within the organisms.

the symptoms of sepsis can look like many other conditions. By the time it's caught, the devastating cascade of inflammation, clots and plunging blood pressure might be wreaking havoc on internal organs.

"We're trying to score points in the fourth quarter, and we're down by 60," Dr. Britt says.

If the hypothesis that vesicles do help trigger sepsis proves correct, it will translate directly to a fundamental shift in the way sepsis is diagnosed and treated. □

'VIRTUAL' FAMILY PRACTICE

continued from page 6

an internal grant from the Office of the Vice Provost for Planning and Health Professions, C. Donald Combs, PhD. The EHRL trains health-care providers how to balance the use of electronic health records with the need to establish a strong doctor-patient relationship.

PEACH's virtual office builds from that

foundation to incorporate concepts of the patient-centered medical home model, a relatively new approach within family medicine that establishes the primary-care physician as the point person for all of a given patient's medical needs. The doctor is, in essence, the coach of the team of caregivers, coordinating

with specialists and marshaling resources to ensure the best outcome for each person.

"The idea is for the primary-care physician and the community specialists to coordinate care better so that every patient gets what he or she needs," Dr. Britton says. □

EVMS STUDENTS, FACULTY *make international impact*

Community service abroad is a long-standing commitment for students and faculty at Eastern Virginia Medical School, whether they're delivering much-needed medication and equipment, diagnosing and treating common illnesses or conducting important health-research projects. And EVMS is growing its outreach efforts every year.

"The experiences are absolutely invaluable for our students," says Terri W. Babineau, MD, assistant dean for community outreach. "They see cases they've never seen before and learn to practice without all of the extras we have in this country. They see how much they can help just by using all of their senses, listening carefully and having a good stethoscope in their hands."

Students have eagerly embraced the opportunities. In the Graduate Program in Public Health, for example, degree candidates can choose to do their required research project locally. But as program graduate and current medical student Eric Chow puts it, "If you get a chance to do international work, why would you ever pass that up?"

Here are four examples of how EVMS is touching the lives of people far from Hampton Roads:

Haiti

Among the toys and supplies that three EVMS students took to Haiti over winter break were coloring books created with an ambitious goal: keeping the children who draw in them healthy.

Instead of animals or cartoon characters, the books have images of proper and improper hygiene practices. Accompanying text, in Haiti's native Creole language, describes the importance of regular hand washing and using toilets or burying waste to prevent parasitic or bacterial infections. Those painful, potentially deadly infections are among the biggest health concerns in developing countries.

Second-year medical students Matthew G. Balderston, James S. Coulter and Jonathan Gellman distributed 150 books to children at the Maison Fortune orphanage in Hinche, a city in Haiti's central plateau region. The three lived at the orphanage for a week and hope to return in the future on a medical mission.



During their trip, Mr. Balderston, Mr. Coulter and Mr. Gellman visited patients at a local hospital and hospice center, including about 70 people infected with cholera. "I learned what a truly underserved population looks like," Mr. Balderston says. "The hospital didn't have running water or enough beds, but the doctors still were saving lives. I came back from this trip recharged."

The students also played soccer, chess and other games with eager children at the hospice and orphanage, some of them refugees from the 2010 earthquake. The coloring books, which EVMS leaders believe could be a low-cost but effective tool in developing countries, were a hit, Mr. Balderston reports: "I could tell they were reading them."

Mr. Gellman was impressed by the Haitian people's resilience, despite grinding poverty, a lack of electricity and unsanitary solid-waste and trash disposal. "People are very willing to help one another," he says. "There's a real camaraderie there. I definitely want to go back."

Separately, EVMS students raised more than \$15,000 for Haiti by connecting more than 40 medical schools worldwide via Facebook and selling T-shirts. The money benefited Partners in Health, a non-profit organization that serves impoverished areas.

Peru

For two medical and nine graduate students who traveled to Pucallpa, Peru, in the spring of 2010, the living quarters weren't exactly luxurious:

wooden slats or concrete floors served as beds, with mosquito nets draped from the ceiling. But in exchange, participants got to conduct vital public-health research and help 1,100 people at a medical clinic.

"You see how grateful people are, showing up in the middle of the night after walking for miles," says Drew Bolton, a second-year student in EVMS' dual MD/Master's of Public Health (MPH) program who organized the effort. "You also come to understand how to effectively utilize all the resources you have at hand to deliver medical care. It gives you confidence and a better ability to adapt in different situations."



Peru is the latest addition to the Graduate Program in Public Health's push to incorporate more international work into students' training, sometimes in partnership with medical students. Students also have traveled to the Democratic Republic of Congo, where research has focused on complications of childbirth, malaria transmission and malnutrition.

In 2008, David O. Matson, MD, PhD, director of the public-health graduate program, committed to at least four years of work with the non-governmental organization (NGO) Touch of Love: Peru. Last spring, MPH students helped conduct a survey of more than 600 homes in two so-called "invasion" communities, formed by squatters on unused land. "We hope to help the NGO focus its efforts and deliver more strategic health interventions," Mr. Bolton says.

Students observed poor infrastructure and a high rate of parasitic infections that might be prevented by basic steps, such as wearing shoes in mud-floored huts. This spring's public-health intervention will include a mass de-worming effort.

"The Peru trip provides an opportunity for public-health students to conduct significant public-health projects in the most difficult setting," Dr. Matson says. "At the same time, public-health



students and medical students are working in partnership to address the needs of persons lacking their own, as well as their country's, resources."

Honduras

Some patients never fade from memory. Eric J. Chow, who holds a master's degree in public health from EVMS and is a second-year medical student, has an enduring image of a 100-year-old woman in Honduras who walked three miles — barefoot — to get to a medical clinic. Sitting next to her was a 3-year-old child who had made the same journey.

"Traveling internationally opens your eyes in a way that classroom work just can't," says Mr. Chow, who has made two trips to the Central American nation. "You see people who haven't had access to health care in a year. You see the power of medicine."



capital city, for a week and travels out to clinics in different towns.

In 2010, they treated more than 2,000 patients at five clinics. Because of the language barrier and technological gaps, students must rely on their senses and basic equipment, such as stethoscopes, to diagnose patients.

"People literally line up by the hundreds up the mountains," says Terri W. Babineau, MD, assistant dean for community outreach and a trip participant. "It truly is life- and practice-changing."

Students, who organize the trips and fundraise to cover expenses, also distribute anti-parasitic medications, other needed pharmaceuticals and the same coloring books on good hygiene practices that went to children in Haiti. Public-health students, meanwhile, collect data on patient symptoms, ages and diagnoses to study differences among cities and population groups. "In the future, that will allow us to better tailor medications and treatments," Mr. Chow explains.

As for that 100-year-old woman, she got her check-up — and a pair of shoes for the walk home.

Delivery of ultrasound technology

In many developing countries, pregnancy-related deaths are the number one killer of women of childbearing age. The availability of ultrasound equipment, along with physicians and technicians skilled at reading the results, can save lives by identifying women with high-risk pregnancies and bringing them into hospital settings for safer births.

Alfred Z. Abuhamad, MD, chair of obstetrics and gynecology at EVMS, is leading an international effort to deliver donated equipment and offer training sessions in underserved communities. Dr. Abuhamad already has traveled to Haiti three times, Ghana and Somaliland and hopes to add Ethiopia, Sierra Leone and Liberia to the list of missions soon. If possible, he also would like to take EVMS students along with future teams of volunteers.

Ultrasound can identify many high-risk situations, including multiple pregnancy, abnormal fetal growth and problems with the placenta, enhancing prenatal care and reducing the number of dangerous home births. "We can have a significant impact on maternal health worldwide," Dr. Abuhamad says.

Dr. Abuhamad works with the International Society of Ultrasound in Obstetrics and Gynecology, or ISUOG, to organize the trips. As an ISUOG board member, he started a committee that focuses specifically on spreading ultrasound technology to developing nations. Companies that manufacture ultrasound equipment donate machines, and volunteers pay their own expenses.

On each trip, teams of five to six experts, physicians and sonographers, work with non-governmental organizations and at hospitals and clinics. They generally stay for a week on their first visit and then return twice more, at six months and one year, to review training. "We want to be sure the best practices are in place," Dr. Abuhamad says. □



Alfred Z. Abuhamad, MD



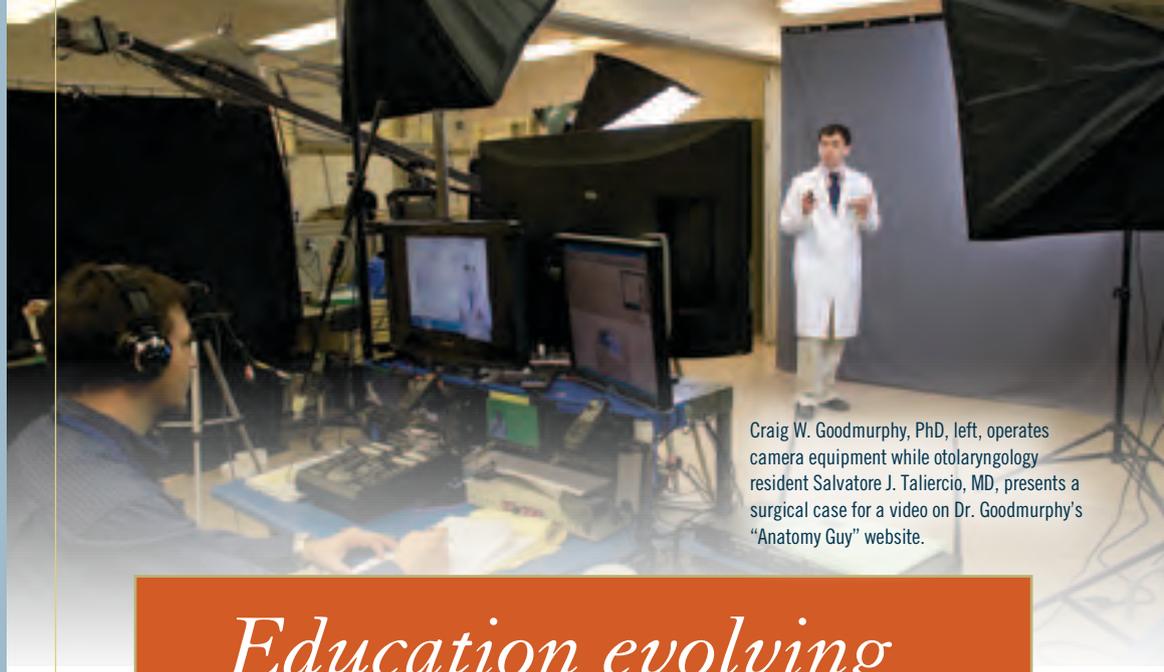
Cynthia S. Kelley, MD

The Medical Society of Virginia Foundation HONORS FACULTY

The Medical Society of Virginia Foundation honored Alfred Z. Abuhamad, MD, professor and chair of obstetrics and gynecology, and Cynthia S. Kelly, MD, professor of pediatrics, at the 2010 Salute to Service Awards.

Dr. Abuhamad received the award for service to the international community. He has undertaken medical missions to Ghana and Haiti and was in Haiti during the devastating 2010 earthquake. Dr. Abuhamad has coordinated training curriculum, the provision of state-of-the-art equipment and a pool of experienced volunteer professionals.

Dr. Kelly received the service award for advancing patient safety and quality improvement. She has received more than \$3 million in grant funding to improve the quality of local asthma care and is renowned for developing and spreading clinical best practices. □



Craig W. Goodmurphy, PhD, left, operates camera equipment while otolaryngology resident Salvatore J. Talierno, MD, presents a surgical case for a video on Dr. Goodmurphy's "Anatomy Guy" website.

Education evolving WITH NEW GENERATION, NEW TECHNOLOGY

For medical students learning anatomy, the three-dimensional view into the intricacies of a real body is a unique part of training and one of medicine's oldest educational traditions. At EVMS, educators are combining that tradition with some of the latest learning methods.

As classes at Eastern Virginia Medical School grow larger and lab sizes remain the same, professors are developing innovative ways to supplement the educational experience. Chiefly, they're taking advantage of video and web technology to create a detailed website filled with videos on anatomy dissection, histology, neuroanatomy, pathology and surgical procedures, which is expanding to include interactive components and virtual cases that tie together both basic and clinical sciences.

"The program is expected to help our students and those around the world who don't get as much time in the laboratory and to link clinical relevance with the basic structures and functions," says Craig W. Goodmurphy, PhD, associate professor of pathology and anatomy. Students at EVMS also will work more with prosected or plastinated specimens, which have been dissected and preserved by replacing water with non-toxic silicone.

"We will maintain a cadaver-based course, but we will be creating ways that allow students the ability to accomplish some of the work of learning outside of the laboratory," Dr. Goodmurphy says. "As always, our goal will be to ensure that each

student gets the step-by-step instructions and guidance needed to be competent and confident medical students and, one day, successful doctors."

Dr. Goodmurphy is working with the surgery department, the otolaryngology department and a wide range of other EVMS educators and specialists to build the online site "Anatomy Guy." The site continues to grow and will offer a complete set of video presentations outlining each step of the dissection process on specific areas of the body, from the head to toes. Already, "Anatomy Guy" draws viewers in 126 countries.

As class sizes grow with the addition of the new education and research building, faculty will move anatomy students into an A/B teaching model, where one group works in the laboratory one day and the other group on a second day. When students are not in the lab, they will be reinforcing what they learn by working with standardized patients, people specially trained to mimic illnesses and provide feedback, at the Theresa A. Thomas Professional Skills Teaching and Assessment Center. Dr. Goodmurphy hopes the split will make for smaller groups per cadaver, giving each student significant hands-on experience, practical reinforcement and more opportunities for peer-to-peer teaching.

In addition to changing the experience of first-year students, there are also plans in motion to develop even more opportunities for integrating clinical and basic sciences. Long term, Dr.

Continued on page 39

EVMS physician helps employee survive deadly scare

Last year, when EVMS employee Susan Conner suddenly found herself in a desperate struggle for life, an EVMS faculty physician came to her aid.

Susan was at her Norfolk home when she began to feel dizzy and passed out. Fortunately, her sister, Betsy, also an EVMS employee, was there and called an ambulance.

Betty Chidester, MD, an assistant professor of emergency medicine at EVMS, was on duty in the emergency department at Sentara Leigh Hospital when Susan was brought in. The emergency physician remembers the case well.

“Ms. Conner was acutely ill. She wasn’t breathing on her own and had no cardiac activity,” Dr. Chidester recalls.

Susan had suffered a massive pulmonary embolism, and her heart stopped on three occasions – once for nearly 30 minutes. Under Dr. Chidester’s guidance, the emergency team was able to restart Susan’s heart. Once she was stabilized, the primary concern became the long-term effect on her brain.

“When I found out she was being discharged, I just had to see her for myself,” Dr. Chidester says, “I can’t explain how I felt. It was a miracle that she was alive, and her mental function was normal. She told me about her job at EVMS and was using such technical terms that I couldn’t quite follow. That degree of mental function is clearly a miracle.”

Dr. Chidester says a lot of credit goes to her colleagues who performed CPR and kept Susan’s brain alive.

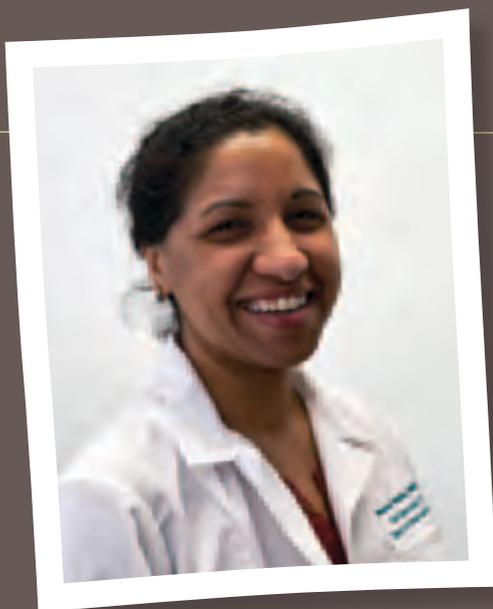


Susan Conner, left, and her sister, Betsy Conner, right, relive Susan’s life-threatening ordeal with emergency physician Betty Chidester, MD. Dr. Chidester works for Emergency Physicians of Tidewater.

Susan, who works in the EVMS Department of Physiological Sciences, says she’s feeling better than ever.

“I was in the hospital for 18 days. I know that Dr. Chidester saved my life,” she says. She credits two other EVMS providers, Jennifer L. Ryal, MD, assistant professor of internal medicine, and Serina A. Neumann, PhD, associate professor of psychology, with overseeing her recovery.

“I’ve always felt a sense of community at EVMS and even more so after being cared for by EVMS physicians,” she says. “It was not just doctors who helped me, but also staff not involved with medical treatment trying to do anything to help with my recovery. I found that I have more friends than I ever knew, and I have a whole new perspective on life.” □



MEET MEENAL K. WALIA: EVMS Values Award winner for excellence

On any given day, Ms. Walia, MPA, MPH, can be found mentoring physician assistant students at Lake Taylor Transitional Care, helping internal medicine residents from EVMS and Portsmouth Naval Hospital during their geriatric rotations or providing high-quality care to patients at the EVMS Glennan Center. □

To learn more about Ms. Walia, view her video profile at www.evms.edu/magazine.

EVMS recognizes faculty, staff, students and residents that are living the core values of excellence, collegiality and integrity in this new addition to the EVMS Magazine.

BEYOND CLINIC WALLS PROGRAM

brings together students and seniors

DOCTOR HONORED *by* *grateful patient*

Last year, Raymond Rivers of Elizabeth City, N.C., lost a leg to peripheral vascular disease and was treated by the specialists at the EVMS Department of Physical Medicine and Rehabilitation.

To help others like himself, Mr. Rivers plans to establish a resource center in northeastern North Carolina. It's tentatively named the Raymond Rivers Senior Resource Center for Amputees, Diabetics and Cardiovascular Patients. Plans call for a headquarters, including offices, classrooms, a fitness center and a library. To honor one of his favorite doctors, Mr. Rivers intends to name the library in honor of Robert Walker, MD, assistant professor of physical medicine and rehabilitation at EVMS.

"Dr. Walker is a terrific guy. He is a remarkable, cool dude. I was so impressed by him. He and so many people in the therapy department got me 'back on my feet,' so to speak, back to living," Mr. Rivers says.

Though physicians routinely receive thanks from patients, rarely does it come in such a public way.

"Mr. Rivers' kind gesture was such a surprise and is very special to me. The accolade is shared by the entire rehabilitation service. It speaks volumes to the type of care that Mr. Rivers and all of our patients receive," Dr. Walker says. □

If you'd like to make a gift to honor your physician, please contact the EVMS Office of Development at 446.6070.

Madeline Jones loves eating sushi, going out to bars, getting her hair done and talking about her boyfriends. Most people know the spunky 66-year-old by her nickname, MJ. Unfortunately, Ms. Jones also suffers from congestive heart failure and has been blind for three years due to glaucoma and cataracts. She lives alone in Norfolk.

Every few weeks, students from Eastern Virginia Medical School visit Ms. Jones as part of the Beyond Clinic Walls program, a project of the Students for the Advancement of Geriatrics Education. They bring lunch (usually sushi, her favorite), talk about their day, go for a walk and even help arrange her medical appointments.

Daniel Parker, a second-year medical student, started Beyond Clinic Walls at EVMS last year after leading a similar program at the University of North Carolina at Chapel Hill. With a meager budget of \$200, the program has almost 30 students who volunteer their time with six seniors. Mr. Parker is hoping to double the size of the program in 2011.

"EVMS students are always looking for an opportunity to get involved and make an impact in the community," Mr. Parker says. "That's why a lot of students come here in the first place."

Mr. Parker says he received instant support from the Glennan Center for Geriatrics & Gerontology, as well as Senior Services of Southeastern Virginia, an organization that

supports area seniors through advocacy, education and comprehensive services. The organization provided a list of potential clients as well as advice and information on serving the senior community.

Beyond Clinic Walls gives medical students first-hand experience with older patients and allows them to witness the obstacles facing seniors outside the doctor's office. The frequent visits also can help improve the students' patience and relationship-building skills, along with their ability to deal with a diverse group of patients.

The program also supports the Glennan Center for Geriatrics and Gerontology's overall mission to provide patient education as well as thoughtful and compassionate geriatric care.

Viann N. Nguyen, a first-year student working toward her master's in public health, has been visiting Ms. Jones for almost a year. She says volunteering for Beyond Clinic Walls has shown her the "reciprocal joy of giving." One of her favorite moments with Ms. Jones is when they took her to downtown Norfolk to explore.

"She repeatedly told me that she felt as though she had won the lottery. It was great," says Ms. Nguyen.

There are many of these moments during a typical visit, and Ms. Jones is grateful for the young students taking an interest in her life. "I need some company," she says.

Continued on page 40

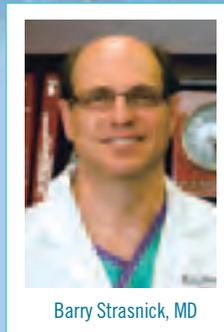


EVMS students Arun Chubra, Nihan Kaya and Viann Nguyen visit with Madeline Jones as part of the Beyond Clinic Walls program.

“IDENTIFY, TREAT, *Cure*”

More than 32 million Americans suffer from some form of hearing loss. Yet only 20 percent of those who would benefit from a hearing aid actually wear them.

These numbers are the impetus behind hearing research at the EVMS Department of Otolaryngology — Head and Neck Surgery. Barry Strasnick, MD, professor and chairman of the department, answers some questions about hearing loss and discusses innovative approaches to its identification and management both in Virginia and nationwide.



Barry Strasnick, MD

How prevalent is hearing loss in the United States?

The incidence of hearing loss is now 11.3 percent in the United States, and it's anticipated to go up by 3 percent by 2050. It is the most common birth defect in the United States. It's more common than Down syndrome, heart disease — all the diseases we screen for at birth.

What is the financial impact of hearing loss?

To educate a hearing impaired child in a special-needs setting costs the state about \$450,000 over the course of a 12-year education. For the individual, the lifetime cost of being hearing impaired is about \$1 million. Before beginning newborn hearing screenings, in Virginia, we found we were spending more than \$22 million a year for deaf and hearing-impaired education.

Why is it important to catch hearing loss at a young age?

The average age that we were identifying kids as being hearing impaired was about three years of age. And our studies show us that, by then, we're already missing the boat; we have to intervene with hearing aids or with speech-language therapy by one year of age to allow those children to have the same opportunities you and I do. And when we do that, we see those children no longer need to be in a boarding school. They can be mainstreamed into classrooms.

What advancements in medical technology have enabled this improvement?

The change was the development of technology that allows us to detect hearing loss at birth. Two devices — the Otoacoustic Emissions Test and Automated Auditory Brainstem Response Test (AABR) — allow us to test a baby while they're just sleeping in the nursery.

How has EVMS contributed to the early detection of hearing loss?

We were the test site for a number of the newborn hearing screenings, including the Otoacoustic Emissions and the AABR. We were the place where people came to test the device and work out the kinks. We were the place that developed the automated hearing testing that's now being used across the country.

Now, all 50 states screen for hearing loss, and I worked with U.S. Rep. Lois Capps (Maine) and U.S. Sen. Olympia Snowe (Calif.) last year to get President Obama to sign the bill mandating early hearing intervention and detection implementation nationwide. It is now a national program with government support and government backing.

What do you see as the future of hearing loss and impairment treatment?

I've always envisioned this as a three-phase process: the first being identification, the second phase being linkage between the hearing-impaired population and the rehabilitative resources, and the third being research and development to try to cure hearing loss.

We have an expressed goal that we're going to cure hearing loss in the next 10 years. While that may not seem credible, it's actually highly plausible. □



Art therapists help people express and cope with emotions relating to life experiences, mental-health issues, psychiatric disorders or physical conditions. They work with clients across the spectrum of care, from children undergoing cancer treatment to teenagers living with autism to soldiers returning from war.

The Art *of* Healing

Graduate Art Therapy
and Counseling
Program teaches the
power of creativity in
tackling emotional and
physical problems

At first glance, the woman who came to Abby C. Calisch, PsyD, for counseling seemed perfectly in control. But her calm exterior belied a terror of making mistakes and disappointing other people. When Dr. Calisch asked her client to create a three-dimensional mask, all those feelings surfaced.

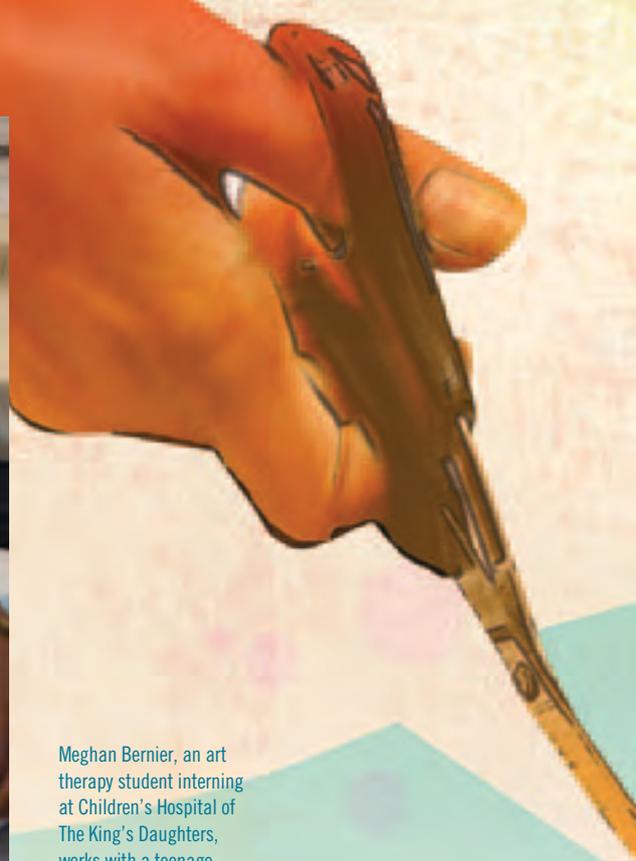
The patient glued the words “fear,” “embarrassment” and “shame” onto the inside of the mask. For her, art was a powerful way to express her emotions without inhibition.

“It gave a whole different realm of understanding to me — and to her — about what was really going on,” says Dr. Calisch, professor and director of the Graduate Art Therapy and Counseling program at Eastern Virginia Medical School. “We were able to talk about how



Art therapy and counseling students, from left, Jessica Ropars, Lauren Burinsky and Stefanie Scannel experiment with art-making materials in the d'Art Center in downtown Norfolk.

As mental-health professionals increasingly accept art therapy as a valuable addition to treatment plans, EVMS is preparing graduates with its hands-on and intensive training program.



Meghan Bernier, an art therapy student interning at Children's Hospital of The King's Daughters, works with a teenage patient undergoing dialysis.

afraid she is of doing the wrong things and of not being accepted. There were also a lot of memories that came up.”

As mental-health professionals increasingly accept art therapy as a valuable addition to treatment plans, EVMS is preparing graduates with its hands-on and intensive training program. In addition to courses and studio time, all students in the two-year, master's-level course of study complete a research thesis as well as three semesters of clinical internship in different community settings. During that time, they work with children, adolescents and adults dealing with anxiety, depression, substance abuse, relationship issues, domestic violence, trauma, illness and chronic pain.

“Each student has the opportunity to experience a range of developmental issues and problems,” Dr. Calisch says. “We have a very demanding program, but they get to see exactly how they can apply the principles they have learned in the classroom to healing and intervention with clients.”

Launched in 1973, the year EVMS opened its doors, the program trains students to become art therapists and licensed professional counselors; graduates earn a master of science degree in art therapy and counseling. The program has approval from the American Art Therapy Association, a designation reserved for programs that meet high

educational, ethical and professional standards, says Susan Corrigan, the association's executive director. “It's a very rigorous process,” Ms. Corrigan says. Fewer than 40 programs in the U.S. are approved, and EVMS' is the only one that operates from within a medical school.

With a maximum of 20 students per class, the atmosphere is both supportive and challenging. Students work together in the classroom and in an art studio open 24 hours a day, seven days a week in the d'Art Center in downtown Norfolk. There, they can practice applications and techniques with paper, clay, paint, felt, collage, sculpture and many other media for use with their clients, either with a professor's guidance or on their own.

Hands-on projects can be powerful aids for therapists seeking to understand clients' thoughts and emotions, says Shannon Trewartha, MS, a 2004 graduate of the EVMS program, who now works with a psychotherapy practice in Norfolk. Ms. Trewartha remembers one case in particular: two teenage boys, one white and one black, both with behavioral issues at school. The two didn't really start communicating until they built a large sculpture together.

“They got to ask each other questions and find out they had a lot of misperceptions about each

“Often children don't know what to do with this feeling or how to get rid of it. They just know it doesn't feel good. Having a trained art therapist working with families really enhanced our program.”

Anne Chisman Abraham, MSW, Edmarc Hospice for Children



other and each other's races," Ms. Trewartha says. "They learned how important it is to take the time to get to know other people. It was that artistic process that unified them and allowed them to speak freely. It's a great example of how art therapy is just one more tool that we have to help people."

Art therapists have many such anecdotal success stories. Only recently, however, has scientific evidence emerged in outcome-based studies. For example, brain scans now can pinpoint specific regions activated as a client creates artwork — the same regions they also might use to re-process painful or traumatic memories. "We're at the beginning of a place where we can actually image what's going on neurologically," Dr. Calisch says. "It's still a young field, but generally it's becoming much more accepted."

And EVMS students have produced important research as they complete the program's rigorous thesis requirements, says Sarah P. Deaver, PhD, associate professor and research director. "Work they have done has been published and added to literature in the field," says Dr. Deaver, who earned a master's degree from EVMS in 1982. "Our students have made a real contribution to the field, which in turn is attractive to many

of our applicants." The tiny number of doctoral programs in art therapy nationwide makes those contributions even more essential. "A lot of the research now is coming out of master's degree programs like ours," she says.

Art therapy students spend their first semester in the classroom, studying theories and research methods as part of a core curriculum focused on mental health. During the next three semesters, they add clinical internships. Possible work sites include hospitals, schools, shelters, detention centers and domestic violence programs. Interns might encounter everything from a young student facing bullying to a military veteran with post-traumatic stress disorder.

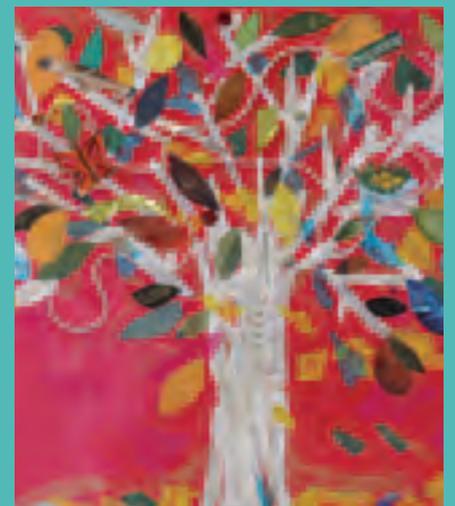
Each student works 18 hours a week for 15 weeks during an internship, including at least nine hours per week with direct client contact. Interns also must give formal presentations at their work sites, whether they discuss clinical cases or educate the staff about art therapy.

Sarah Bufogle, MS, art therapist with the Norfolk-based YWCA Women in Crisis program, supervises an EVMS intern working with survivors of domestic violence. "Art therapy is oftentimes a last resort when other verbal therapies have failed, and it is for this reason that art therapy helps to heal on a deeper symbolic level," Ms. Bufogle says. "The EVMS program has become influential in the surrounding community by placing its students in hospitals, schools, shelters, outpatient centers and other psychiatric settings and making it a necessity to have such a training program in the area."

Art therapy also can be a powerful tool for children who need to release feelings of grief, fear or anger, says Anne Chisman Abraham, MSW, Bereavement Program director for Edmarc Hospice for Children in Portsmouth, which hosted a student intern last fall. The creative process can help even very young kids "purge" emotions that they may not have the vocabulary to express through conversation. That includes children who are very ill or dying and those who have lost a sibling.

"Grief is just so heavy to carry around," Ms. Abraham says. "Often children don't know what to do with this feeling or how to get rid of it. They just know it doesn't feel good. Having a trained art therapist working with families really enhanced

The art of learning



Art therapy and counseling students create artistic works as part of a portfolio they build throughout their education, as they learn how to use different mediums in treatment settings. The pieces were created by students Ashton Sullivan, Joanna Tarr and Meghan Bernier. See more student work at www.evms.edu/magazine.



Art therapy students Stefanie Scannell and Lauren Burinsky help a child create art during the 2010 Community Care Day in Norfolk. Image courtesy Kevin Belen.

our program. It gave the kids such a wonderful outlet to express themselves without having to find words.”

As they complete internships and pursue research for thesis projects, students also keep private “visual journals,” which combine art and writing. The journals — one of a variety of assignments involving personal art-making — give students a chance to reflect on their training and process their own feelings as they begin interacting with clients. “The process of art-making is a great way to become a reflective practitioner, a quality that is so important to helping others,” Dr. Deaver says.

Artistic skills vary by student: some are gifted artists while others just know how to use a variety of materials. Many hold undergraduate degrees in fine arts or psychology. Pre-requisite coursework for the program includes 12 semester credit hours of psychology — both developmental and abnormal, with theories of personality strongly recommended — and 18 semester credits of studio art, including drawing, painting, ceramics and sculpture.

Nicholas T. Alexander, a 32-year-old student in his first year of the program, has a bachelor’s degree in studio art and worked as an elementary and middle school art teacher for more than seven years before coming to EVMS. Mr. Alexander craved more one-on-one time with kids and liked the idea of using his artistic background to reach out to those needing guidance. He was drawn to the EVMS program because of its

intensive nature, experienced faculty and unique medical school affiliation.

“It’s very powerful to think that the materials that I know how to use can help me help someone else,” he says. “It’s not just about the art product but the entire process of creating. Painting is something I’ve done forever, but now I’m thinking about it in a whole new way.”

In her years of practice, Ms. Trewartha has found paint and clay to be favorite media for many clients. Teenagers also tend to enjoy “found-object sculpture,” in which they take everyday odds and ends — boxes, coins, wire, old radios or, as Ms. Trewartha puts it, “anything you can find at a garage sale” — and glue them into different shapes.

“You can work on multiple goals at once,” she says. “Allowing for positive self-expression, creating trust and building self-esteem — those are just a few.”

Art therapy programs can be based in a variety of settings, including art schools, counseling

centers, nursing schools and university fine arts or psychology departments. Programs tend to lie along a continuum, with some more art-based and others more clinical- and research-based. “We’re very rigorous in the combination of the three — art, clinical and research,” Dr. Calisch says. “It’s a very well-balanced approach.”

Ms. Bufogle of the YWCA agrees. “It’s an intense program that requires its students to engage in a process of self-awareness in order to become better equipped to serve diverse populations.”

Second-year student Molly F. Pettit, 27, says the

“It’s very powerful to think that the materials that I know how to use can help me help someone else.”

Nicholas T. Alexander, first-year art therapy and counseling student

coursework mirrors her goal of combining a love for art — she majored in studio art and English in college — with medicine and research. “I wanted to get out and practice, rather than be a studio painter or an art teacher,” she says.

Ms. Pettit, the student who interned at Edmarc Hospice for Children, brought in materials including paint, clay and music to work with bereaved families. “It’s a way for me to understand them better and can provide a good starting point for us to talk,” she says. “One family wrote a song about what they were going through, for example. And it’s not just what they write or draw, but what they say about what they’ve created.”

After graduation, Ms. Pettit plans to spend a few years in practice before possibly pursuing a master’s degree in public health or a doctorate in counseling psychology. “I’m interested in both health care and the educational system,” she says. “I do enjoy working with children and adolescents, but really I’m open to almost everything. There are so many directions this can take you.”

The EVMS program has three full-time professors as well as community adjunct faculty members, all with extensive experience in the field. Each full-time faculty member has taught for between 18 and 30 years. Two hold doctorates, and the third is in the process of earning his. Together, they lead students in a peer- and group-oriented approach to learning. “Everyone supports one another,” Dr. Calisch says. “It’s a very tight program.”

Students and graduates say that support is crucial. “It feels just like a family,” says Ms. Trewartha, one of the program’s instructors. “You get to see and be part of a real group dynamic, which is always important in therapy. This is not a place where you can miss class and nobody notices. If you’re absent, a professor will be calling you to find out why and ask if you are OK.”

Perceptions of art therapy have changed dramatically in the years since she graduated, Ms. Trewartha says. “For a while, not many people understood what it was,” she says. “Now people in the mental-health community are willing to give art therapy a chance, and I think that’s great.” □



Student Crystal Menicola constructs a project alongside her classmates in the program’s 24-hour studio in d’Art Center in downtown Norfolk.

Varied career options for art therapists

So where do art therapists work? The simplest answer is: all over the place.

Therapists can find jobs in private offices and in hospitals, residential- or day-treatment centers, halfway houses, schools, battered-women’s shelters, correctional facilities, elder-care centers, pain-management clinics and more. Patients range from young children to seniors.

Art therapists might have private practices and/or team up with physicians, psychiatrists, nurses, marriage and family therapists, social workers or teachers, particularly in special-education classrooms. Some practice full time, while others with a degree in art therapy might practice as part of another profession, such as social work or family counseling.

“There really isn’t a ‘most common’ for where people get hired,” says Susan Corrigan, executive director of the American Art Therapy Association, which represents more than 5,500 professionals, students, educators and health-care providers

nationwide. “People are in multiple settings.”

Although average salaries fall between \$30,000 and \$50,000, earnings can vary significantly by location and type of practice, according to the American Medical Association. Credentialed art therapists must have at least a master’s degree in art therapy and complete supervised clinical internships.

Finding a job still isn’t easy. The market remains limited, and obtaining a license can be difficult depending on the state, says Cathy A. Malchiodi, an art therapist, author and internationally recognized expert in the field. “Medicine will begin to accept art therapy when there is substantial evidence-based research to support its application on a wide scale; that just has not happened yet,” Ms. Malchiodi says. “I am hopeful it will someday.”

Ms. Corrigan believes acceptance is growing now since many hospitals offer some kind of art or music therapy to help patients manage stress and pain. Two particular expansion areas, she says,



are helping veterans with post-traumatic stress disorder and seniors with dementia and other health challenges as the population ages.

EVMS students are optimistic about the future. “The research behind this field is still growing,” says Nicholas T. Alexander, a first-year student. “It’s a very exciting time for the profession, and it’s neat to be a part of that.” □



Unlocking Autism

EVMS
researchers
explore new
treatments

Autism presents a challenge for doctors and medical researchers. Because the developmental brain disorder cannot be medically diagnosed, cured or effectively treated, it is one of the most complicated health problems to treat — and the causes are unknown. Unfortunately, it's also common. In the U.S., one in 110 children is diagnosed with autism, and that number is growing as much as 17 percent each year.



AUTISM

by the

NUMBERS

- 1.5 million people in the U.S. have an autism spectrum disorder.
- 13 percent of U.S. children have a developmental disability.
- 10 percent of children with ASD have an identifiable genetic, neurologic, or metabolic disorder, such as Down syndrome.



Researchers at Eastern Virginia Medical School are working to develop new, effective ways to treat children and adults with autism. In February 2010, professors in the Department of Psychiatry and Behavioral Sciences started the Autism Spectrum Disorders Program for Older Adolescents and Adults. In a year, the program has hosted a successful conference and unveiled major research that could help develop a new medication treatment for autism.

Stephen I. Deutsch, MD, PhD, professor and chair of the department and the Ann Robinson Chair of psychiatry and behavioral sciences, believes the medical school has no choice but to play an important role in autism research.

“We have treatments that are less than fully effective,” Dr. Deutsch says. “In fact, sometimes we have no treatment. So there is a moral imperative to do research. We can do things as a medical center that are unique and a service to our community.”

A spectrum of needs

Autism is a common term used to describe a spectrum of developmental disabilities — including autistic disorder, Asperger’s syndrome, Rett syndrome, childhood disintegrative disorder and pervasive development disorder — not otherwise specified. Autism spectrum disorders (ASDs) affect each person differently and result in extremely varied symptoms; although, impaired sociability is a common trait among all ASDs.

Autism affects all socioeconomic groups and races. Autism is more common than pediatric cancer, juvenile diabetes and childhood AIDS combined, yet it receives significantly less funding for research. While little is known about what causes autism, boys are four times more likely than girls to be diagnosed with an ASD.

Although doctors have developed methods to assess behavior and development, these screenings are not entirely accurate until a child is at least 2 years old. Most treatment plans call for a combination of special education,

medication, dietary changes and behavior therapies among other interventions, but still do not eliminate symptoms.

Early intervention is effective in improving development, and most pediatricians screen for autism symptoms during well-child visits as early as 9 months old. Unfortunately, the focus on early intervention results in limited resources for older adolescents and young adults. Maria R. Urbano, MD, associate professor of psychiatry and behavioral sciences, saw the gap in services and designed the program at EVMS to address the needs of the older ASD population.

“Patients with autism are growing up, and the resources for older adolescents and young adults are minimal,” Dr. Urbano says. “This sector of our community is not being adequately treated so our clinical program has been thrust in that direction.” Her goal is to evolve a full-spectrum program that serves patients from childhood to middle age.

Challenges for older adolescents with autism persist, particularly as they reach the age where they may be able to work or establish some independence. Health-insurance benefits also are vulnerable in these situations, as young adults may not be able to rely on their parents’ health plans. Connecting these patients with community resources and vocational programs is an integral part of the EVMS program.

The key to a cure

Medications treat related issues, like anxiety, depression, irritability, temper outbursts and symptoms of Obsessive-Compulsive Disorder (OCD), but there are no medications that address the most common symptom of autism — social impairment.

That’s where EVMS comes in. Dr. Deutsch introduced autism research upon his arrival in July 2010. His team was one of the first to study and confirm that a specific strain of mouse used in research exhibited impaired sociability. According to Dr. Deutsch, these mice are less active and less engaged with other mice, which he says is just as unnatural for mice as it is for humans and dogs.



“Patients with autism are growing up, and the resources for older adolescents and young adults are minimal.”

Maria R. Urbano, MD
associate professor of psychiatry
and behavioral sciences



Since the research and clinical trial were revealed, Drs. Deutsch and Urbano have received inquiries from around the world.

While it remains unknown how the mice got that way, the impaired sociability of the mice mirror similar characteristics in humans who have ASD. Thus, the mice can serve as a model for testing whether medications can effectively treat social impairments.

Dr. Deutsch and his team gave the mice a medication called D-Cycloserine, which traditionally has been used as a treatment for tuberculosis. D-Cycloserine stimulates a receptor in the brain. It has already been tested as a treatment for other brain disorders, including schizophrenia and OCD.

The results were dramatic and surprising. After taking the D-Cycloserine, the mice socialized and acted normally when put in cages with other mice.

Dr. Urbano is using this finding to develop a human clinical trial. Still in the early stages, the trial is designed to test people between the ages of 14 and 25 who have been diagnosed with ASD. The participants must be healthy and on stable medication and therapeutic regimens for four weeks prior to starting the study. They also must have IQs of 70 or above, which generally means having sufficient language skills to express themselves. These parameters are important in the initial phases of testing so the effects of DCS can be clearly elucidated.

The trial also will test two different dosing administration strategies to see how frequently a patient must take D-Cycloserine. To judge its effectiveness, Dr. Urbano will be using multiple



AUTISM *by the* NUMBERS

- 40 percent of children who have ASD also have intellectual disability, or an IQ lower than 70.
- 40 percent of children with ASD do not talk at all.
- 5 years is the average age at which children are diagnosed with an ASD.

AUTISM *by the* NUMBERS

- **\$3.2 million**
is the estimated
lifetime cost to
care for an
individual
with an ASD.
- **\$60 billion**
is the annual cost
of autism spectrum
disorders in
the U.S.
- **60 percent**
of costs are in
adult services.

This information was gathered from statistics from the Centers for Disease Control and Prevention and the Autism Society.

tests to measure social impairment and interaction.

Since the research and clinical trial were revealed, Drs. Deutsch and Urbano have received inquiries from around the world. Other researchers have contacted Dr. Deutsch about the medical breakthrough, and parents of children with autism are inquiring about how to get involved in the clinical trial.

An interdisciplinary approach

The Autism Spectrum Disorders Program for Older Adolescents and Adults is poised to become a leader in autism research and treatment in the



When patients enter the EVMS Autism Spectrum Disorders Program, they tap into a network of providers and community services.

they remain few in number.”

Comprehensive care for autism patients could include diagnostic assessments, medication, speech and language therapy, occupational therapy, vocational rehabilitation, nutritional therapy and behavior analysis.

community, as well as on a national scale. Dr. Deutsch says the medical school is in a unique position to bring community services together and provide an interdisciplinary approach to autism care in our region.

“If you think of a treatment plan, it’s really an individual life-care plan, a total plan,” Dr. Deutsch says. “I think it’s very important for a medical school and for a physician to lead the team, but a multidisciplinary team is essential for the best treatment as ASD affects so many aspects of a person’s life. We have been creating a resource directory for our area, though

To help provide the best care available locally, Dr. Urbano has been forming alliances with many services and advocacy groups in the community and capitalizing on strengths within the department including psychiatry, art therapy, neuropsychology and behavioral medicine. When patients enter the EVMS Autism Spectrum Disorders Program, they tap into a network of providers and community services, including full evaluations, neuropsychological testing, medication management and resource referral.

Earlier this year, experts from EVMS and Children’s Hospital of The King’s Daughters

hosted the conference “Insights into Autism” to educate physicians and health-care professionals on the newest research and treatment options for ASD. The event featured faculty from both institutions, as well as speakers from local community-based programs and national autism organizations.

With the daunting autism statistics, both Drs. Deutsch and Urbano say more needs to be done to help those with autism. Increased funding is needed to support critical research, clinical trials and community programs. The D-Cycloserine finding and upcoming clinical trial are only the beginning of what EVMS researchers hope to achieve in unraveling these complicated disorders.

“We have an obligation to step up to the plate,” Dr. Deutsch says. “We have to stimulate interest in the community and make EVMS a center of excellence research and treatment in autism.” □

For more information about the EVMS Autism Spectrum Disorders Program or the clinical trial, call 757.446.5888 or go to www.evms.edu/autism.



a

“Win-
win-
win”



EVMS students from Project S.M.I.L.E. (Students Making It a Little Easier) interact with young cancer patients and their siblings during an outing organized by the pediatric oncology program at Children's Hospital of The King's Daughters. Photo courtesy Kevin Belen, MD Class of 2013.

EVMS student-led youth outreach programs benefit all involved

At the beginning of the academic year, first-year students at Eastern Virginia Medical School are introduced to various clubs and service organizations they can join.

For biomedical master's student Natalie M. Walck of Virginia Beach, selecting a service organization to become involved with was

simple. As a cancer survivor treated at Children's Hospital of The King's Daughters a decade ago, Project S.M.I.L.E. made sense. The volunteer organization stands for Students Making It a Little Easier, and it's based on the "big buddy/little buddy" model, pairing medical students with CHKD's pediatric oncology patients.



First-year medical student K.C. Puaa works with Maury High School students Ashley Stevenson, left, and Mari Green, in the back, to repair used wheelchairs bound for donation overseas by Physicians for Peace.



Tenth grader Jasmine Thompson leads an interview with a mock patient during a gathering of the medical explorers. EVMS students host high school-age kids interested in medicine and careers in health care.

Students plan monthly events for the children and their families. Big buddies also visit their little buddies at the clinic on treatment days.

“We do arts and crafts, play video games and try to make the long treatment day a little more fun,” Ms. Walck says.

For Ms. Walck and her fellow students, that kind of community interaction is much more than something to put on a resume.

“EVMS encourages its faculty and students to participate in community outreach programs by making them accessible, organized and rewarding,” she says. “There is an energy in the EVMS family that makes volunteering at the top of everyone’s list.”

Terri W. Babineau, MD, an EVMS alumna and assistant dean for community outreach, oversees student outreach groups. She refers to EVMS students as “one of the most precious commodities in Hampton Roads,” and says that anyone under the impression that today’s youth are self-centered should see EVMS students in action.

Among the many youth-oriented volunteer opportunities are the EVMS Mentoring Society, the Medical Explorers Program and a summer externship program for Norfolk Academy students.

One of the longest running is the Medical and Health Specialties Program at Maury High School. The magnet program began in the

mid-1980s as a collaboration between Norfolk Public Schools and EVMS.

Anne Christie, medical- and health-specialties program director at Maury High School, says the program started with 20 students but has grown to nearly 180 students.

“The exposure to rigorous classes and extraordinary enrichment opportunities has supported the academic growth of the students in this program,” she says. “This year, nearly 90 percent of the graduating seniors plan to continue their studies with a health or medical focus. With the ever-increasing need for professionals in the medical and health fields, this program was at the forefront in recognizing an emerging need and supporting the educational

development of its students.”

K.C. Puaa, a second-year medical student from Seattle, works with the magnet school students in a variety of ways, including facilitating volunteer opportunities with Physicians for Peace (PFP), a Norfolk-based nonprofit that provides international medical relief.

PFP often needs workers to help sort crutches, wheelchairs and prosthetics so they can be refurbished and sent to places in need, providing real-world, hands-on experience for the students.

“We have had ‘packing parties’ where we’ve sorted a couple thousand pairs of eyeglasses to donate to people in the Philippines,” Mr. Puaa says, adding that it’s a great learning experience for both EVMS and Maury students and a great help to PFP. “It’s a win-win-win situation.”

About 50 EVMS and

“If you’re in med school and don’t take advantage of working with a world-class organization like PFP, it’s like going to Paris and walking through the Louvre with closed eyes.”

K.C. Puaa, MD Class of 2013

Maury students volunteer for PFP, gaining valuable insight into how medicine is delivered internationally. When asked how it was possible for time-crunched medical students to take part in volunteer activities, Mr. Puaa laughs.

“If there’s one thing that med school teaches, it’s time management,” he says, adding, “If you’re in med school and don’t take advantage of working with a world-class organization like PFP, it’s like going to Paris and walking through the Louvre with closed eyes. It’s also nice to take a break from classes, feed our spirit and experience camaraderie with other students.”

Another program that brings together EVMS students with youth interested in health-care careers is the Norfolk Academy Medical Externship (NAME). It was established in 2006 as a collaboration between local physicians, Norfolk Academy, EVMS and Sentara Healthcare.

Over three summers, Norfolk Academy Upper School students follow a curriculum that takes them from triage to palliative care and various specialties in between. An EVMS medical student oversees orientation, scheduling rotations and mentoring of the students.

Lewis F. Affronti, PhD, chair of the Norfolk Academy science department, says the program was started to promote medicine as a career option and to address the forecasted decline in practicing physicians. He says it has received overwhelmingly positive responses from participants.

“For many, this experience is a life-changing one that motivates them to want to learn more,” Dr. Affronti says. “They realize this program provides them with a real-world experience that they cannot get in the classroom.

“From an educational point of view, this program is a wonderful example of how we should be educating our youth, where we provide them with real-world experiences involving partnership between community resources and the school,” he says. “We have already seen the benefits of this program, as several NAME participants have applied to medical school and have attributed their career choice to this program.”

A decidedly less academic, though wildly popular, EVMS outreach event is Haunted Hallway. It’s held annually to provide a safe and fun alternative to outside trick-or-treating. Last

year, more than 300 students from James Monroe Elementary School and Chesterfield Academy attended.

Kevin G. Belen, a second-year medical student from Detroit, helped organize last year’s event.

“Close to 100 volunteers came from all different programs to provide activities for the kids. Some people passed out candy, art therapy students did arts and crafts and face and pumpkin painting and others created games for the kids to win prizes,” Mr. Belen says. “In addition to the manpower, it takes a lot of brain power to thrill today’s elementary students.”

The EVMS Mentoring Society, established in 2007 and consisting of about 50 members, also partners with James Monroe Elementary. As former president and co-founder, fourth-year medical student Erika S. Chambliss helped to establish the program in which mentors meet weekly with elementary-school students for various activities including field days, outings, health fairs and bowling.

“I understand the importance of seeing positive role models at an early age, to have someone to admire and something to strive for,” Ms. Chambliss says, adding that she was attracted to EVMS because of such opportunities. “Community service was clearly woven into EVMS’ DNA from its inception, and I couldn’t have selected a better place to pursue my degree in medicine with opportunities to give back.”

The Medical Explorers Program of the Boy Scouts of America brings high-school students to EVMS for monthly educational sessions. EVMS students arrange the lectures, which are open to all Hampton Roads high-school students.

“They are introduced into the world of medicine,” Dr. Babineau says. “One night, they do a ‘CSI’-type class in the pathology department. They have ‘anatomy night,’ in which teams of EVMS students take the Explorers into labs where they see cadavers. We’re very specific in those situations, with young people in the lab, to make them understand the importance of respect given to the people who’ve donated their body to science. It’s a very powerful night.” □

To learn more about the Medical and Health Specialties Program at Maury High School, Norfolk Academy Medical Externship or the Medical Explorers, visit www.evms.edu/magazine.

From magnet program to patient’s bedside

Marissa C. Galicia-Castillo, MD, Sue Faulkner Scribner Distinguished Professor in Geriatrics, knows first-hand the value of programs partnering EVMS and high-school students.

Having spent several years studying in the magnet program, known as the Medical and Health Specialties Program, at Maury High School, she graduated from Norfolk’s Booker T. Washington High School in 1990. The magnet program, a collaboration between the Norfolk Public Schools and EVMS, seeks to fulfill the increasing need for health-care professionals locally and nationwide.

During Dr. Galicia-Castillo’s time in the program, students spent the morning at their home schools and afternoons at EVMS, where they attended lectures and gained clinical experience.

She liked the opportunity to leave Booker T. Washington after morning classes and meet other Norfolk high-school students on the campus of EVMS. “The program was geared toward science with medical applications,” she says. “I thought science was fun, and it was cool as a high-school student to be at a medical school.”

Upon graduation, Dr. Galicia-Castillo enrolled in a joint-degree program between Old Dominion University and EVMS. “I did three years at ODU and then came to EVMS and started my first year of med school as my fourth year of college,” she says.

At EVMS, Galicia-Castillo found her “home” and completed both her residency and fellowship here.

As part of her commitment to the community, Dr. Galicia-Castillo lectures throughout the area, providing education on a variety of topics in geriatrics, including Alzheimer’s disease, common medical problems such as diabetes and hypertension, falls, medications, advance directives and palliative care. □



Marissa C. Galicia-Castillo, MD

Group supports aspiring minority health professionals

African-American students navigating the waters of medical academia have a friend in the Association of African-American Healthcare Providers (AAAHP).

Paulette Brown, MPA, a 2004 graduate of the EVMS physician assistant (PA) program, and other EVMS graduates established the group in 2003 as a way to give back to the school that helped shape their careers. The group guides applicants through the rigorous application process and provides support during the course of the 27-month program.

The goal of the AAAHP is to help educate minority students about the different health professions available — important information for those who are interested in the medical field, but for whom a career as a nurse or doctor may not be the right fit.

A gathering of the AAAHP in January brought together physician assistant alumni and current students with a number of applicants. Speaking at that event, Mrs. Brown, director of the association and a board member of the EVMS School of Health Professions Alumni

Association, said she benefited from a support program as a student, but she felt more could be done to prepare and assist students.

The students are strong academically, Mrs. Brown says, but they are under a lot of pressure and they may not be prepared for it.

April Foust-Ward worked as a chemist for 17 years. With the help of the AAAHP, she was accepted into the physician assistant program last year.

“I felt it would be a good fit for me,” Mrs. Foust-Ward said. “I enjoy the interaction with people and being able to be on the forefront of health care. The AAAHP has been very supportive and very informative because there are a lot of questions that you didn’t realize you had until you actually talk to somebody who has been in your shoes.”

Jessica Bethea graduated from Norfolk State

University in 2010 with a degree in chemistry. She wanted to become a doctor, but she recently started a family of her own. She now aspires to be a PA because she believes it offers greater flexibility than being a doctor.

“It’s less school, of course, but I can do a lot of different fields. I can explore the entire world of medicine,” she said.

At the January gathering, Mrs. Bethea networked with practicing PAs. “I got to meet the other PAs, and they were very willing to answer any questions I had,” she said. “It’s very nerve-racking. In filling out the application, you want everything to be perfect. It was good to have the opportunity to chat about that with others.” □

For more information about the AAAHP, email Mrs. Brown at kecoughtan@msn.com, and to learn more about EVMS’ MPA program, visit www.evms.edu/magazine.

Paulette Brown, MPA, left, a board member of the EVMS School of Health Professions Alumni Association, speaks with applicant Jessica Bethea, right, and her mother, Dianne Allen, at a meeting of the Association of African-American Healthcare Providers.

EVMS ALUMNI RELATIONS

seeks feedback on proposed Black Alumni Chapter

As part of EVMS’ commitment to fostering a diverse and inclusive environment, the Office of Alumni Relations is working to establish a Black Alumni Chapter Steering Committee. The Chapter will operate as a component of the EVMS Health Professions and MD Alumni Associations. The Steering Committee will help to establish

goals for the Chapter such as improving students’ educational experiences, serving as a resource for student recruitment and retention and promoting diversity in medicine. □

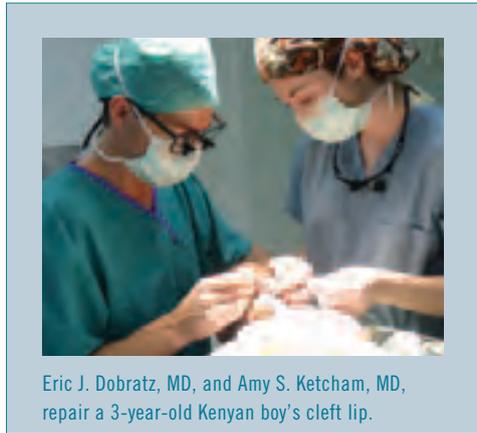
Visit www.evmsalumni.com/chapter.cfm to take a brief survey, and offer your feedback or volunteer to serve on the steering committee.

EVMS GRAD BRINGS NEW SMILES TO CHILDREN IN KENYA

Three-year-old Simon traveled 14 hours with his mother, Ruth, to reach the AIC-CURE International Children's Hospital in Kijabe, Kenya, so he could receive life-altering surgery. Smartly dressed in a tie and orange sneakers, Simon met with 2003 EVMS graduate Eric J. Dobratz, MD.

Dr. Dobratz, director of the EVMS facial plastic surgery division in the Department of Otolaryngology-Head and Neck Surgery, with the help of third-year resident Amy S. Ketcham, MD, performed the two-hour surgery to repair Simon's cleft lip. The toddler went home the next day, his life forever changed.

In a country where people with such deformities often are shunned and sometimes killed, these types of medical missions can have a tremendous



Eric J. Dobratz, MD, and Amy S. Ketcham, MD, repair a 3-year-old Kenyan boy's cleft lip.

impact on lives previously marked by shame and isolation.

Dr. Dobratz and Dr. Ketcham traveled to Kenya in November with a team of eight other

health-care providers organized by Smile Train, a non-profit organization dedicated to helping people living with unrepaired clefts. In just two weeks, the pair performed 24 similar procedures for children ranging from three months to 20 years old.

"I feel blessed to be able to use my skills to help make such a positive impact on these kids and their families," Dr. Dobratz says. "It was nice to bring some of the EVMS commitment to community service across the world to help children who have significant deformities but minimal means to seek treatment for them. This was my first medical mission trip, but it certainly won't be my last." □

For additional photos from Kenya, go to www.evms.edu/magazine.

White coat retirement ceremony wins award

The inaugural Eastern Virginia Medical School "White Coat Retirement Ceremony" won a national award for its innovative approach to marking the transition from medical student to physician.

The Association of American Medical Colleges (AAMC) Group on Institutional Advancement presented the 2011 Award for Excellence to Melissa W. Lang, director of alumni relations, at the group's April professional development conference.

Held prior to graduation, the coat-burning ceremony is similar to that used to dispose of worn American flags. The event formalizes a tradition for graduating students.

"In previous years, the white coat burning was somewhat controversial," Ms. Lang explains. "Our

goal was to ensure the long-standing practice was safe, respectful and fun. It's also a unique way to welcome new graduates into the alumni association."

Before placing their coat on the flame, students pledged, "I commit myself to a lifelong journey of learning how to cure, to relieve and to comfort with humility and compassion. I make these promises solemnly, freely and upon my honor."

The EVMS MD Alumni Association sponsored a catered barbecue, live music and transportation to and from the event. Several alumni were on hand to welcome the new graduates.

AAMC judges called the ceremony a "beautifully integrated" and "clever approach" to instituting a dignified rite of passage and building relationships with new graduates. □

2006 GRADUATE DIES AT AGE 33



Melissa Rose Heagerty, MD, a graduate of the EVMS MD Class of 2006, died Feb. 25, 2011, at the age of 33. She suffered an apparent blood clot.

A native of San Jose, Calif., Dr. Heagerty was a first-year family medicine resident at the Arrowhead Medical Center in Colton, California, at the time of her death.

"Melissa's passions were medicine, theater arts, movies, sports and Scrabble," according to her obituary. "Her passion for becoming a doctor was inspired by her ongoing battle with epilepsy and her freshman biology class . . ."

Donations may be made in lieu of flowers to two groups particularly special to her, the San Jose Children's Musical Theater or Oakland Children's Hospital. □

ALUMNI INFORMATION

Send your class notes and news to Alumni@evms.edu

SAVE
THE
DATE:

May 13, 2011

White Coat
Retirement
Ceremony.

August 5-7, 2011

MD Alumni Reunion
Weekend celebrating the
classes of 1976, 1981, 1986,
1991, 1996, 2001, 2006.

October 28, 2011

Annual School of
Health Professions
Alumni Banquet,
EVMS campus, 6 p.m.

Have you updated your Alumni profile lately? Visit www.evmsAlumni.com to make sure your information is current.

philanthropy

Participants in the Wine, Women & Fishing catch-and-release Ladies-Only Billfish Tournament combine fishing, fun and fund-raising to benefit breast cancer research.



Generous individuals and organizations see EVMS as worthy cause

The American Association of Physicians of Indian Origin-Hampton Roads (AAPI-HR) has started a tradition of supporting EVMS with proceeds from the organization's annual gala. The most recent event brought total giving to EVMS to \$30,000 – including support for scholarships and the new EVMS student-run free clinic.

The organization selected EVMS for its community focus, says Vandana Patel, MD, former AAPI-HR president. She says the group considers its support of EVMS an investment in the future of health care in Hampton Roads.

The AAPI-HR is just one of an assortment of organizations that consider EVMS a worthy

cause. Whether hitting the links, barbecuing, bill-fishing or dancing, the people who support EVMS are an energetic group who find creative, fun and successful ways to raise money for the school.

Many are grateful patients or friends and family of people who have benefited from the life-saving care provided by EVMS health-care professionals. Others simply understand how important it is to have a top-notch medical school in their own backyard where education, advanced patient care and cutting-edge research are a constant, making our community a better place to live.

Another thing that EVMS financial supporters

have in common is the belief that funding for medical education, research and care should stay local. While there are many worthy national organizations, EVMS community fundraisers say, "This is our school and we want to support our hometown hero."

Denise Cohan, EVMS director of community engagement, said the support from these organizations is vital to the school's financial well-being and a testament to the passion people have for the school.

"Without a doubt, the strides EVMS physicians and scientists are making every day are a direct result of the time, energy and enthusiasm shared by our generous friends throughout the

community,” she said.

Each year, organizations across Hampton Roads and beyond contribute more than \$120,000 to EVMS through a variety of fundraisers, some designated for specific departments and areas of research, while others are earmarked for the general fund. Following are but a few of the events aimed to raise funds for specific areas.

Cancer research

To honor Ray Barlow, a legend among Virginia Beach high school coaches, friends and family created the Coach Ray Barlow Believe in Yourself Foundation in 2008, shortly after Coach Ray Barlow passed away from prostate cancer. The mission of the foundation is to raise awareness about the importance of early detection tests for prostate cancer and to raise money for research with the hopes that a cure will be found. Through an annual golf tournament, the foundation has donated more than \$35,000 to EVMS and established an endowment in Coach Barlow’s name.

Kevin Walck, foundation president, was a student and friend of Mr. Barlow.

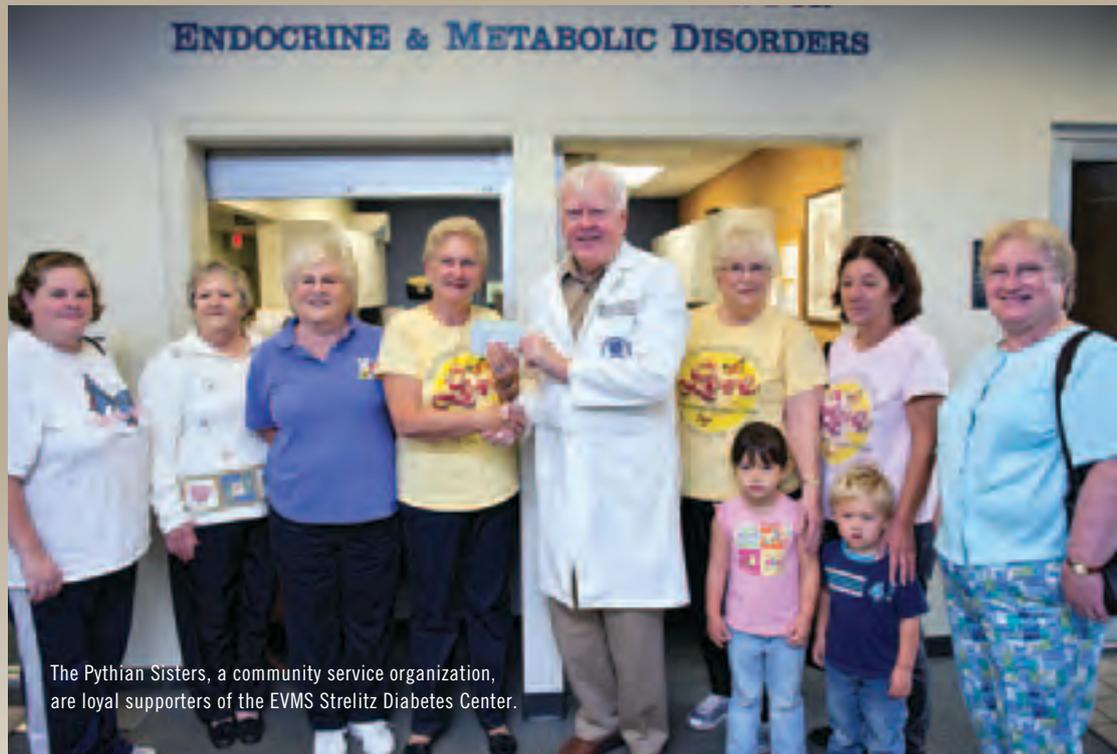
“Coach Barlow was a great man. He was a big

Whether hitting the links, barbecuing, bill-fishing or dancing, the people who support EVMS are an energetic group who find creative, fun and successful ways to raise money for the school.

man and had a big personality. He commanded respect, was fun and a great guy to play for. The foundation is a way to honor Coach Barlow and to have former classmates working together to give back to the community,” Mr. Walck said.

“We had considered donating to a national organization, but we felt that since we had a medical school here, with a prostate cancer research department, it made more sense to keep the money local and give to EVMS.”

Another event geared toward duffers is the David Rosenberg Charity Golf Tournament for Cancer Research. Mr. Rosenberg, of Virginia Beach, established the tournament after being diagnosed with cancer in May 2009. During



The Pythian Sisters, a community service organization, are loyal supporters of the EVMS Strelitz Diabetes Center.

treatment, he said, he was unable to work and needed something positive to do. The first tournament was held in November 2009 and raised \$3,100. This past year, more than \$7,000 was raised.

“I didn’t want to give the money to a national charity because I couldn’t be sure that the money wouldn’t just go to administrative costs and salaries,” Mr. Rosenberg said. “I wanted to make sure it was going to be put to good use, and I

know that will happen by keeping it local and giving to EVMS,” he said.

The Chesapeake Bay Wine Classic Foundation hosts the annual Wine, Women & Fishing catch-and-release Ladies-Only Billfish Tournament to benefit EVMS’s breast cancer research. The tournament has raised more than \$150,000 for EVMS. Last year, in addition to the 45 marlins hooked, more than \$20,000 was netted for EVMS.

Continued on page 38

Last summer, the EVMS Strelitz Diabetes Center was a beneficiary of donations collected at area 7-Eleven stores.





Dave Rosenberg, a cancer survivor, gathers his friends and colleagues each year to host a golf tournament with proceeds to benefit cancer research at EVMS.

Generous individuals and organizations

continued from page 37

“EVMS was chosen as the beneficiary of the tournament because we were very interested in keeping the research dollars local and it was clear that EVMS has an amazing pool of talent dedicated to our cause,” said Jennie Capps, executive director of the foundation.

Diabetes:

The Strelitz Diabetes Center is the beneficiary of numerous events throughout Hampton Roads, from 7-Eleven canister collections started by the family of long-time patient Natalie Saunders of Virginia Beach to dances and fashion shows presented by the Pythian Sisters community service organization.

Cookout for the Cure is an annual fundraiser that features a grilling competition, children’s activities and live music. Last year Cookout for the Cure raised more than \$40,000 for the center, bringing the total raised over its 16-year history to nearly \$750,000.

The cookout, held at Fleet Park in Norfolk, is hosted by The Hampton Roads Shipping Association and the International Longshoremen’s Association. It was established by Ed Brown Sr., a trade-union leader and strong advocate for EVMS, in honor of his mother who had diabetes.

The annual Mike Cavish Charity Golf Tournament has raised \$295,000 for the Strelitz Diabetes Center over the course of its 12-year history. The tournament was established by friends and family of Mr. Cavish, a well-known restaurateur and Ghent advocate. Last year’s

event drew 144 golfers and brought in more than \$27,000 for the center.

Hearing/balance impairment

CHEAR—Coalition for Hearing and Education and Research—is comprised of multiple interests including EVMS, Old Dominion University and community service organizations that aim to provide resources and care for disorders of the ear, hearing and balance.

Barry Strasnick MD, professor and chair of otolaryngology head/neck surgery at EVMS, is CHEAR president and founder. He’s grateful that the coalition has been successful in its fundraising efforts for the school.

“Last year, through the generosity of the Sertoma Club of Norfolk, and on behalf of CHEAR, \$18,000 in direct financial support was directed to EVMS, to enable the purchase of cutting-edge hearing-testing technology. In addition, CHEAR has provided infrastructure support to assist EVMS in establishing the regions only recognized Donor Hearing Aid Bank,” he said.

For the past two years, CHEAR has hosted the Soundsation gala fundraiser. Stephanie Moody Antonio, MD, assistant professor in the department of otolaryngology, said the event helps in a variety of ways, in addition to assisting EVMS in providing hearing aids to people with who cannot afford to buy them.

If you would like to host an event to support EVMS, please contact the Office of Development at 757.446.6047. □

PEDIATRICS GRANT

continued from page 8

experiential aspect, says Natasha Sriraman, MD, MPH, an assistant professor of clinical pediatrics who earlier this year helped secure a public-health grant from University of California, Los Angeles, that formed the foundation for the larger, most recent grant.

There is the potential for the EVMS residency program, a cooperative effort with Children’s Hospital of The King’s Daughters, to share classes or resources with other educational programs at EVMS, including the master of public health program and the family-medicine residency,

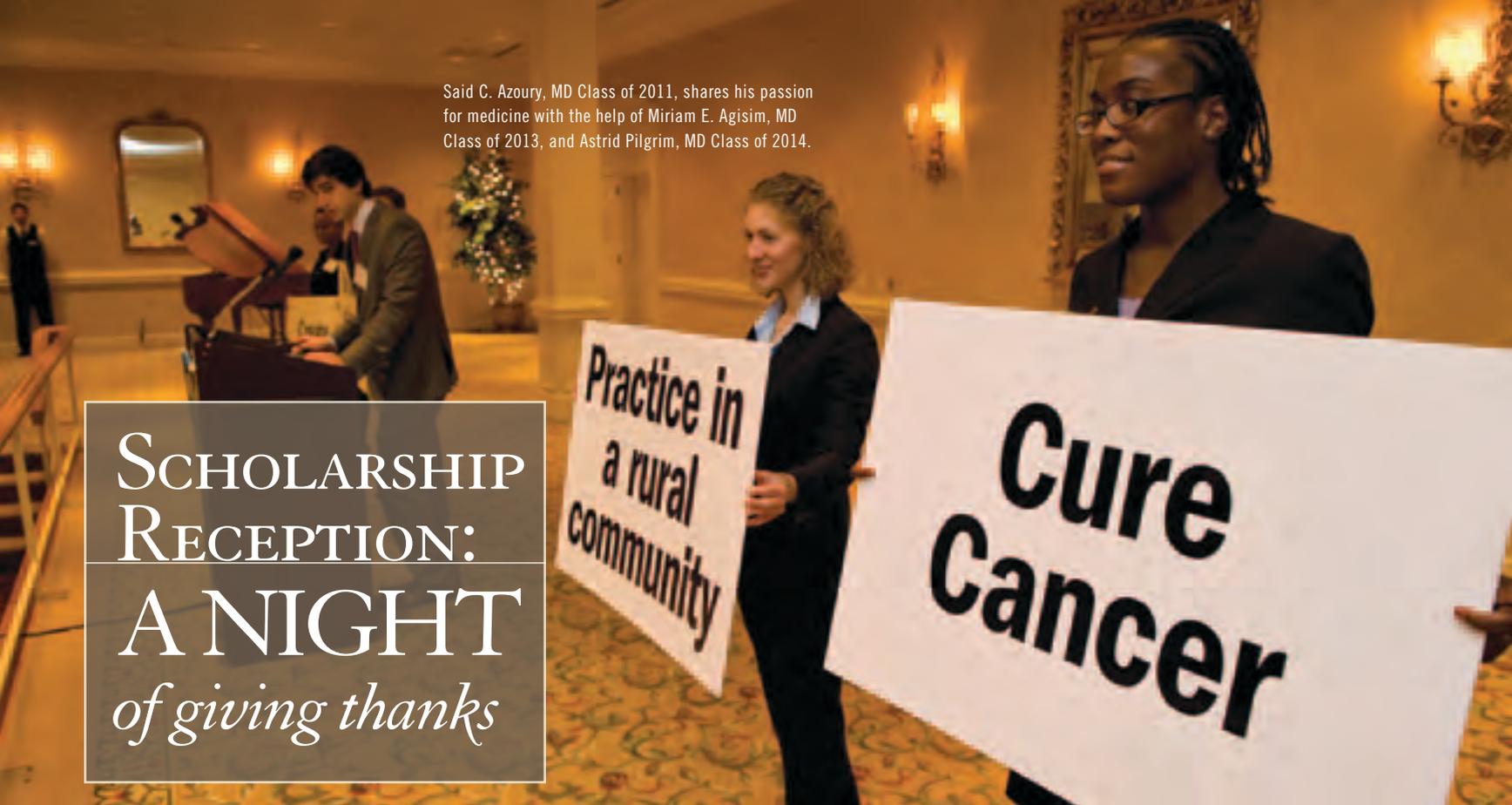
which has undertaken a similar focus on public health, says collaborator Kaethe P. Ferguson, EdD, director of the Division of Community Health and Research, who wrote the HRSA grant.

Residents may spend time in public-health departments to learn how the system works. They also may shadow lawmakers to learn about public policy, visit the Eastern Shore to better understand the unique challenges of children’s health in rural Virginia or take part in a poverty simulation.

“[Health care] is not just about the child or the adolescent,” Dr. Sriraman says. “We have to be concerned about the mother and her health, the family and the family situation because all of that impacts health in terms of whether there is domestic abuse, lack of insurance, lack of social support or educational issues. All of that impacts the health of the child.”

As they modify the curriculum, Dr. Sriraman is careful to follow the mantra of colleagues at UCLA. “Public health is not poverty health,” she says, “It affects us all.” □

Said C. Azoury, MD Class of 2011, shares his passion for medicine with the help of Miriam E. Agisim, MD Class of 2013, and Astrid Pilgrim, MD Class of 2014.



SCHOLARSHIP RECEPTION: A NIGHT of giving thanks

For the first time in Eastern Virginia Medical School's history, donors and scholarship recipients came together for a night of reflection and gratitude.

"EVMS has made me who I am and I am forever grateful for my medical education," Said C. Azoury, MD Class of 2011, told the audience of nearly 175 people. "I will do all in my power to make the institution proud and to give back in the future."

Students, faculty and donors shared the state of student indebtedness and the ways supporting scholarship funds can ensure that the best and

brightest students are able to pursue their dreams without looming debt dictating their future. The average EVMS medical student graduates with \$169,000 of education-related debt. Physician assistant students have an average debt of \$94,000, and other health professions students graduate with a debt of \$40,000.

Claudia E. Keenan, chief of staff, announced that, starting Fall 2011, a medical student will receive a full scholarship to EVMS through the Dorothy M. Middleton Memorial Scholarship. This will be the school's first endowed, full-ride scholarship.

"The impact of scholarships will be felt by not only the student recipients, but the communities each will serve," Ms. Keenan said.

Three new scholarship funds also were introduced to help lessen the burden of debt and allow students to concentrate on their areas of study: EVMS School of Medicine Scholarship Fund, EVMS Physician Assistant Scholarship Fund and EVMS School of Health Professions Scholarship Fund. □

Visit www.evms.edu/magazine for photos and videos from the event, and for more information about contributing to scholarship funds.

Education evolving

continued from page 12

Goodmurphy hopes to develop a Clinical Anatomy and Surgical Training Center. Residents and senior students would use this space to revisit and refocus their anatomical training in more clinically relevant ways as they start to get more experience with patients. "It's a work in progress, but we think we can go a little lighter on anatomy in the first year and then come back in the fourth year and do very specialized training," says Donald H. Sussman, PhD,

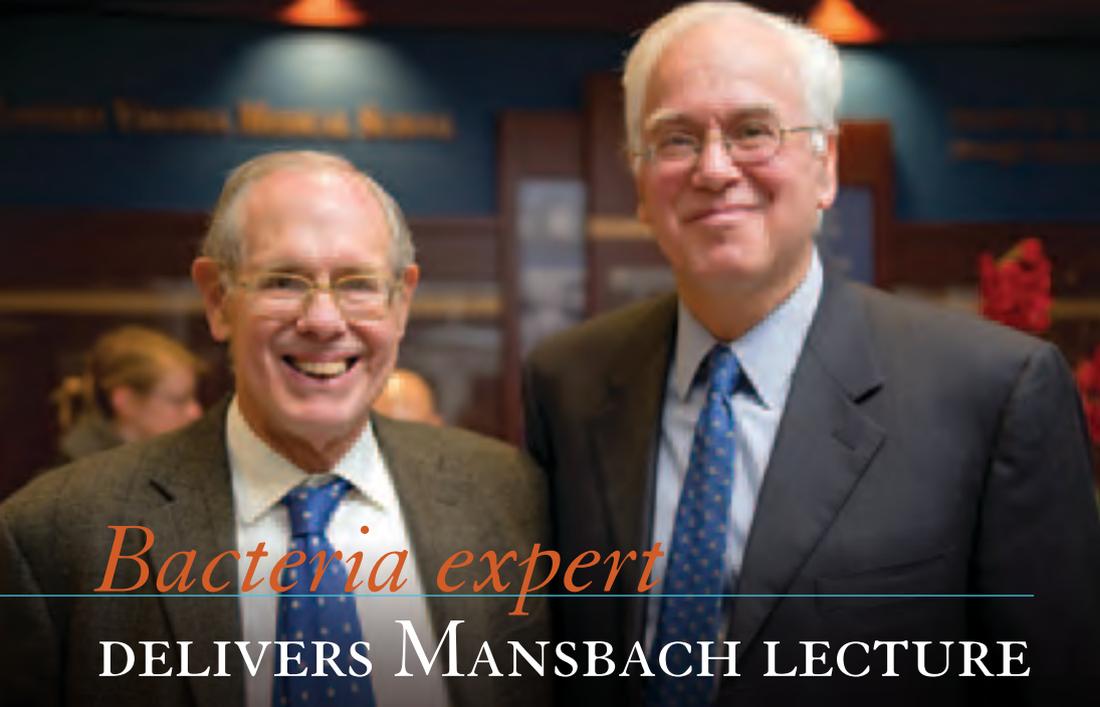
assistant professor of pathology and anatomy.

EVMS is well equipped to integrate technology into its curriculum. The school already has a virtual operating room in partnership with Old Dominion University, where students learn basic skills such as suturing and central line placement. EVMS' new education and research building will have large rooms that could transform into simulated operating, hospital or emergency rooms for

students to practice complex treatments and surgeries while interacting with virtual patients.

"The more real we can make it, the better," says Rebecca C. Britt, MD, assistant professor of surgery. "We are dedicated to finding and developing creative ways to deliver the same high-quality curriculum to a greater number of students." □

Visit www.evms.edu/magazine to learn more about changes in the way we teach students.



Bacteria expert DELIVERS MANSBACH LECTURE

Americans spend billions annually on medicine to fight bacteria within the human body, but research is demonstrating that bacteria can be both friend and foe.

The human body routinely hosts many types of bacteria in places such as the skin, mouth, esophagus, stomach and colon, according to

Martin J. Blaser, MD, guest speaker at the Feb. 10 EVMS Mansbach Lecture.

Dr. Blaser, chair of medicine and professor of internal medicine and microbiology at New York University School of Medicine, told the audience of nearly 175 guests about his own 30-year study of the bacteria known as *Helicobacter pylori*.

H. pylori has lived in human stomachs for millennia, but the microbe's disappearance over the last century has provided scientists with clues about its complicated relationship with the body.

For instance, its decline coincides with a steady decline in the incidence of stomach cancer. But during the same time period, humans have experienced a surge in asthma, gastro-esophageal reflux disease and cancer of the esophagus. Dr. Blaser said the evidence suggests that *H. pylori* can be at once both dangerous and protective.

The discovery may lead to new treatment strategies. Clinicians might introduce *H. pylori* in young children — when asthma is most common — and eradicate it as people age to protect against stomach cancer, Dr. Blaser said.

The Mansbach Lecture is an annual tribute to Harry H. Mansbach, one of the visionaries responsible for the creation of EVMS. He helped lead the drive that raised money to open the school in 1973, and he continued to serve EVMS well into the 1990s. The lecture, started by his children in 1996, brings some of the nation's leading physicians and researchers to Norfolk. □

FAMILY LAUNCHES LECTURESHIP TO HONOR DR. DONALD W. DREW

Mohit Bhasan, MD, assistant professor of clinical internal medicine /cardiovascular diseases at EVMS, presented "Unraveling the Aorta: Insights from Imaging" at the first annual Donald W. Drew, MD, Lecture. The Donald W. Drew Lecture was endowed with a gift from his wife, Barbara Drew, and his sons, Donald W. Drew, Jr., a Virginia Beach businessman, and Peter A. Drew, MD, an EVMS graduate and Florida physician, pictured above with other family members and Dr. Bhasan.



Students and seniors

continued from page 14

Mr. Parker believes Beyond Clinic Walls also can help students understand how community resources factor into care for older adults or underserved patients.

"Communities often have the resources available to overcome these obstacles, but we need to bring them to the person," he says.

Ms. Nguyen and fellow students Sophia Kaur

Sandhu and Arun S. Chhabra now have direct experience with these community resources, even arranging some teeth extractions for Ms. Jones at the free dental clinic. Other students in the program have helped a senior find a primary-care physician.

"The most important service that students provide clients is their time," says Mr. Parker. "As

people get older, they can become isolated, and we know isolation negatively impacts health. So the relationship that students develop with clients is probably the most important aspect of the program." □

Watch a video of Beyond Clinic Walls volunteers in action at www.evms.edu/magazine.

Students, faculty, alumni are “HEALTH CARE HEROES”

EVMS students, faculty and graduates were hailed as “Health Care Heroes” at an awards ceremony sponsored by Inside Business Feb. 22 in Norfolk.

This was the third year the magazine has presented the Health Care Heroes awards to recognize outstanding individuals in the community.

EVMS medical and health professions students brought home the community service award for the breadth and depth of their community outreach.

Also honored were Daniel A. Blustein, professor of family and community medicine; Silvina M. Bocca, MD, PhD (MD Class of 1998), associate professor of obstetrics and gynecology; James O. Carleo, MD, assistant professor of clinical emergency medicine; Krista R. Dobbie, MD, an alumna of the EVMS Internal Medicine Residency Program; Angela D. Hogan, MD, associate professor of pediatrics; Kathy O’Connell, MD (MD Class of 1988); Dilip



Ed Powers, left, publisher of Inside Business, poses with EVMS students who represented their classmates at the Health Care Heroes awards ceremony. EVMS medical and health professions students were singled out for their dedication to community service.

Sarkar, MD, associate professor of clinical surgery; Subir Vij, MD, MPH, assistant professor of internal medicine; and Aaron I. Vinik, MD, PhD, professor of internal medicine and director

of research at the EVMS Strelitz Diabetes Center. □

For photos from the event and more information about the recipients, go to www.evms.edu/magazine.

EVMS Magazine wins award

The Hampton Roads Chapter of the American Advertising Federation has honored *EVMS Magazine* with two Silver ADDY® Awards.

Developed to recognize creative excellence in a variety of media, the regional ADDY Awards were presented during a ceremony in Virginia Beach February 25.

The magazine’s Winter 2010 edition received an ADDY for “Magazine Design.” A feature story in the same issue titled, “Becoming a Super Patient,” took home an award in the “Editorial Spread” category.

“This acknowledgement is a testament to the effort and dedication our department puts into producing each issue,” says Vincent A. Rhodes, MA, director of marketing and communications. “*EVMS Magazine* was developed to cover health-related topics that affect our region and communicate the great work that goes on here everyday, so we share this honor with the entire EVMS community.” □

upcoming

EVMS Graduation 2011 — May 21

EVMS will hold its commencement ceremony for all graduating medical and health professions students at 10 a.m. in downtown Norfolk’s Scope Arena. Marcus L. Martin, MD, a member of EVMS’ charter class who now serves as vice president and chief officer for diversity and equity at the University of Virginia, will serve as the commencement speaker.

Additional graduation events, including military commissioning and baccalaureate, will be held earlier in the week. For more information on times and locations, visit www.evms.edu/magazine.

EVMS Charity Golf Classic — May 24

EVMS will host the annual EVMS Charity Golf Classic at Virginia Beach’s premier Bayville Golf Club. All proceeds from this exclusive tournament benefit the EVMS Foundation.

Cookout for the Cure — June 23

The 17th annual Cookout for the Cure will be held at Naval Station Norfolk’s Fleet Recreation Park from 4-8 p.m. Join the Hampton Roads Shipping Association, the International Longshoremen’s Association and EVMS for great food and music. The cookout features barbecue grilled by competing teams from organizations across Hampton Roads. Healthy options will be available. Pro-

ceeds benefit the EVMS Strelitz Diabetes Center. For more information, go to www.evms.edu/magazine.

Coach Ray Barlow Memorial Golf Tournament — June 24

Coach Ray Barlow lost his battle with prostate cancer in 2007. Since 2008, his family and friends have hosted a memorial golf tournament to help fund prostate cancer research at EVMS. This year’s tournament will be held at Oceana Naval Air Station’s Aeropines Golf Club. Visit www.evms.edu/magazine for registration information or to become a sponsor.

Wine, Women and Fishing — August 20 & 21

The Chesapeake Bay Wine Classic Foundation will host the 9th annual Wine, Women and Fishing ladies billfish tournament and gala at the south side of Virginia Beach’s Rudee Inlet. Women of all experience levels are invited to participate, and the after-party is open to all. Proceeds support breast cancer research at EVMS. For more information, visit www.evms.edu/magazine.

Building dedication ceremony and State of the School Address — September 22

Join EVMS for the dedication of its newest facility and the annual State of the School from 6-8 p.m.

IN FOCUS

Photos from the Physician Assistant White Coat Ceremony, Match Day, Scholarship reception, Campus Visitation Day, Martin Luther King Jr. Day Celebration and Mansbach Lecture.





8



9



10



11

1. Master of Physician Assistant student Ledy Davidson helps incoming student Hillary Huertas don her coat during the program's White Coat Ceremony for new students in January. 2. Mark Dexter heads to the stage dressed as the legislative bill from "School House Rocks." Mr. Dexter doesn't have to go far for his residency; he matched in pediatrics at EVMS. 3. New physician assistant student George Pattam gets a hand with his white coat from fellow student Paul Lanfranchi. 4. Ashley Zapf, dressed as the cartoon character Rainbow Bright, celebrates after learning she will spend a preliminary year at Naval Medical Center Portsmouth before completing a physical medicine and rehabilitation residency at Schwab Rehabilitation Hospital in Chicago. 5. Danea Campbell reads her match result at exactly 1 p.m. March 18. She will complete a transition year at St. Vincent's Medical Center in Connecticut before going to Miami's Jackson Memorial Hospital for training in radiology. 6. Terrance Strayhorn, Lavern Strayhorn, Brenda McMilland and MD Class of 2013 student Rachel Anazia enjoy the inaugural scholarship reception January 12. 7. Yuliya Dobrydneva, PhD, assistant professor in the department of Physiological Sciences; Paul Walker, MD, of Associates in Pediatric Care; and Eric Chow, MD class of 2013 perform a mock interview with a student volunteer at the 2011 Enhancing Diversity in Medicine: Campus Visitation Day program. 8. EVMS Vice Rector, Maurice A. Jones, Esq., performs a commemorative reading at the 2011 EVMS Martin Luther King Jr. Day Celebration. 9. Richard Blaser, MD, a physician and microbiologist at New York University School of Medicine, came to EVMS in February to deliver the annual Mansbach Lecture in honor of school patriarch Harry H. Mansbach. Dr. Blaser discussed how changes in a certain kind of bacteria in our body appears to be affecting our health. 10. Mr. Mansbach's children started the lecture in his honor in 1996. Pictured are (at left) Charles Mansbach II, MD, his wife, May Lynn, and Thomas Mansbach. 12. EVMS President Harry T. Lester (right) and Gail C. Williams (left), MA, Associate Dean for Student Affairs and Director of Minority Affairs present MD student, Erika S. Chambliss (center) with the Student Service Award at the 2011 EVMS Martin Luther King Jr. Day Celebration.



WE HELP PEOPLE STAND ON THEIR OWN TWO FEET.

REVOLUTIONIZING DIABETES CARE, ONE STEP AT A TIME.

Searching for a cure for diabetes means more than looking through the lens of a microscope. It also means looking to our patients. At the EVMS Strelitz Diabetes Center, our self-management plans help people with diabetes become active participants in their own treatment — from choosing proper shoes and avoiding extreme temperatures, to examining their own feet daily with a magnifying mirror. By sharing our world-class expertise with patients, we create a team that's dedicated to providing education, emotional support and the best clinical care. And that's the first step toward a cure.

EVMS

**Community Focus.
World Impact.**

EVMS.edu/diabetes