



Gustavo Doncel, M.D., Ph.D., professor of obstetrics and gynecology at EVMS, is the pre-clinical research director for EVMS' Contraceptive Research and Development (CONRAD) program. The program recently received a \$100-million grant to further research—the largest individual grant in the school's 35-year history.

# EVMS at 35

## Improving Hampton Roads Health in the Past, Present and Future

*More than a medical school, Eastern Virginia Medical School is a thriving research facility and financial powerhouse for the region.*

WRITTEN BY BRENDA H. WELCH | PHOTOS COURTESY OF EVMS

**WHITE**—despite its simplicity, the color can have myriad meanings depending upon its application. It can be a forum for creativity on an artist's canvas; symbolic of purity and new beginnings on a christening gown or wedding dress; or a mark of pristine cleanliness on fresh snow.

For the 115 students who participated in a ceremony held at Eastern Virginia Medical School (EVMS) in Norfolk in late August, white symbolized power—the power and potential impact of a medical education that EVMS can provide.

The school's White Coat Ceremony marks a medical student's entry as a junior colleague into the field of medicine. As these men and women donned their crisp white coats, they became a part of EVMS' 35-year history, as well as its promising future.

"I've been teaching at this school since 1978, and although there have been periods of growth throughout the years, EVMS is now in a position to skyrocket," enthuses Dean and Provost Dr. Gerald Pepe, who led the procession of faculty into McCombs Auditorium at the start of this year's White Coat Ceremony.

Pepe's assertion comes on the heels of the Virginia General Assembly allocating \$59 million in financing to the school in April as part of a statewide education bond. EVMS will use the money to construct a new building that will expand student capacity by 30 percent, increase laboratory space to support broader research efforts and renovate outdated facilities.

The decision to appropriate these funds marked the first time state officials agreed to contribute toward a capital project at the school—a hard-won victory for EVMS President Harry Lester, who hired lobbyist Kay Kemper on behalf of the school in late 2007 to help him navigate the intricacies of the legislative process in Richmond.

“With baby boomers reaching retirement age, Hampton Roads—along with the rest of the country—is going to experience a dramatic increase in the need for quality health care,” warns Lester. “To educate future health care professionals we need space, and that takes money. We needed to convince the state that things are different than they were 25 years ago.”

### Garnering community support

Although EVMS opened in 1973, the push to bring a medical school to Norfolk had begun more than a decade earlier due to a shortage of doctors in the region. After years of debate, studies and reviews, the General Assembly eventually passed a resolution to give the school a public charter, but no state money. This meant the school had more freedom from state regulations, including the tedious purchasing regulations that Virginia’s two public medical schools at the University of Virginia and Virginia Commonwealth University have to adhere to under Virginia’s Public Procurement Act.

The resolution also meant that local officials had to find a different source of funding to get the school built.

Community leaders forged ahead in 1970, launching a \$15-million community fundraising campaign. By the time students cracked open their textbooks in 1973, the EVMS Foundation had attracted \$17 million in gifts and pledges.

Over the past 35 years, EVMS came to be included in state budgets, but due to the ambiguity of its state/public status, it has never received as much as Virginia’s other medical institutions. That has left school officials dependent upon contributions from the community for continuous financial support.

As Lester notes: “The people, organizations and health care facilities throughout Hampton Roads have financially come through for EVMS since its inception. I believe that is because residents understand the impact EVMS has on our region.”

According to the 2007 study, *An Economic and Medical Springboard: Eastern Virginia Medical School*, conducted by Dr. James V. Koch, past president of Norfolk’s Old Dominion University (ODU), on behalf of the ODU Research Foundation, the school’s impact is significant: “All things considered, the observation...that it would be ‘disastrous’ for Hampton Roads if EVMS did not exist is very much on target,” writes Koch. “EVMS is the centerpiece of the region’s health care system. Both the quantity and the quality of health care would deteriorate significantly.”

Koch writes that one-quarter of the region’s doctors have some connection to EVMS, either because they are alumni of the school or because they are involved in one of its many community-based, hospital, research or teaching programs. More than 1,200 area doctors have adjunct, community faculty status at EVMS, including 256 in internal medicine and 135 in pediatrics.

The study goes on to say that if the school did not exist, there also would be significant economic costs imposed upon the region—an estimated \$711 million annually. Writes Koch: “While this is an impressively large number, it does not begin to capture the tremendous contribution the medical school makes to the welfare of the region.”

### Learning from the bumps along the road

It was only less than a decade ago that the prognosis for the nation’s youngest medical school didn’t look very promising. Garnering national acclaim in 1981 as a pioneer in the field of in-vitro fertilization and for producing the nation’s first “test-tube baby,” the school made headlines



From right to left: EVMS President Harry Lester; Dr. Jerry Nadler, chair of EVMS’ Department of Internal Medicine; EVMS Dean and Provost Dr. Gerald Pepe; and John Malbon, chairman of the board of Sentara Health System.



*One-quarter of the region’s doctors have some connection to EVMS, either because they are alumni of the school or because they are involved in one of its many community-based, hospital, research or teaching programs.*

# EVMS at 35

Continued from page 23

again in 2001—though less positive ones then—after withdrawing from the scientific realm of embryonic stem-cell research following a public thrashing of its research practices from President George Bush, even though the program had been privately funded.

In 2003, long-time partner Sentara Healthcare decided against developing a high-tech cancer center with EVMS—a move that weakened the school's already struggling fundraising efforts. That same year, EVMS Dean Evan Farmer resigned because of differences with other school officials; the school's president, Dr. J. Sumner Bell, garnered criticism for his vocal disapproval of Farmer and for publicly airing the school's internal disagreements; and fundraising efforts suffered considerably, despite the fact that the school had just received \$19 million for rights to the profits from the birth-control drug Seasonale, which was developed by EVMS researchers.

It wasn't until 2005, when new leadership came on board, that the tide began to turn. After Bell resigned Lester was appointed to serve as interim president, and Dr. Gerald Pepe was named dean and provost for a five-year term.

Lester's appointment offered EVMS the opportunity to launch a new strategic initiative developed by Navigant Consulting, Inc. In 2007, Lester was named to continue as president, and he, along with other faculty, were entrusted with creating the learning environment necessary to keep up with the nation's health care projections and demands.

## State funding helps school increase enrollment

In 2006, the Association of American Medical Colleges and the Committee on Graduate Medical Education requested that all U.S. medical schools increase enrollment 30 percent by 2015. Virginia Governor Tim Kaine's Health Reform Commission reaffirmed that request, recommending enrollment increases for students training to be physicians and physician assistants.

During the past year, Lester relayed to state officials and legislators the school's commitment to meet this request and stressed the need for increased state funding to help the school create more classrooms in which to train more students. When the General Assembly decided last spring to include \$59 million in a state bond package for EVMS to construct a new building, Lester was thrilled.

"This project is historic in scope and promises to be truly transforming for EVMS," says Lester. "EVMS exists to improve the health of the community, and with the state's help, we are in a better position to meet our goal of a 30-percent increase in M.D. class size and a 60-percent increase in our Physician Assistant program."

In its issuance of the \$59 million, the General Assembly requested—to keep a closer eye on the school's procedures and processes—that EVMS voluntarily follow Virginia's regulations for the new building and asked the state's Council of Higher Education to review the school's purchasing procedures, academic research and clinical programs. In September, the council suggested an increase in annual state funding for the school but also asserted

that EVMS should still maintain some of the same freedoms as a private institution.

"This is a step in the right direction," says Lester. "Although the proposed increase of our annual funding is modest, I'm happy that EVMS' funding will be formalized by legislation, which it hasn't been up until now. Having the phrase 'state-assisted' attached to our name opens up doors that have been closed to us in the past."

If the higher education council votes to pass the review's recommendation, it must then be sent to the General Assembly and governor for approval before it can become law.

"Right now we are primarily focused on raising the additional funds necessary to complete the construction projects," says Lester. "We need to get

*In 2006, the Association of American Medical Colleges and the Committee on Graduate Medical Education requested that all U.S. medical schools increase enrollment 30 percent by 2015.*



these classrooms built, fill the seats with students, teach them and get them practicing medicine in our community as soon as possible."

## Education and beyond

Koch's study shows that there is more to EVMS than education. It says that in addition to teaching, the school—along with local hospitals—draws and retains top-notch professors and doctors, provides access to the latest medical treatments, offers vital critical-care services such as trauma surgery and high-risk obstetrics, provides gratis public health services that improve community health and helps provide care for people who are not able to pay for services.

EVMS enrolls more than 700 students annually in its various academic programs and offers a range of doctoral and graduate degrees and certificates in medical and health professions, with an emphasis on early clinical experience and community service. The school also trains medical school graduates in their chosen medical specialty (referred to as residency training) and offers further specialized training in the form of fellowships. Physicians and other health professionals also participate in continuing medical education at the school to keep up-to-date on advances in

Students and faculty participate in EVMS' 2008 White Coat Ceremony, an annual event that marks a student's entry as a junior colleague into the field of medicine.

Please turn to page 26

# EVMS at 35



At left: An aerial view of the campus taken in 2003.

Continued from page 25

treatment options and revised practice standards.

While in school, students are matched with community physicians who serve as their long-term mentors. Students rotate through clinical practices in a variety of hospitals and outpatient settings throughout Hampton Roads, which provides them with an exceptional array of educational experiences.

Residency training in pediatrics at Children's Hospital of The King's Daughters (CHKD) in Norfolk is an integral arm of EVMS' Department of Pediatrics. Currently, EVMS has 58 resident physicians working in the CHKD program, 17 of whom graduated from the school. Medical residents also have the opportunity to participate in clinical or laboratory research projects with the EVMS faculty.

"Our residency program provides both the breadth and the depth of pediatric experiences that prepare our graduates for success, whether they plan on fellowship programs or plan to directly enter the primary care arena," says Dr. Donald Lewis, chair of EVMS' Department of Pediatrics and CHKD's senior vice president for academic affairs. "An indication of that balance is that approximately one-third to one-half of our residents enter fellowship training each year at top fellowship programs across the country. Our residents also must become teachers to students, fellow residents and, most importantly, to their patients. Ample opportunities are given to permit our residents to become confident and skilled clinician-educators."

CHKD is one of several hospitals throughout Hampton Roads that have established educational ties with EVMS. In 2005, Sentara Healthcare signed an affiliation agreement that established a renewed partnership between the two institutions and pledged to provide EVMS with \$25 million over the next five years. The school receives \$5 million each year, which includes \$3 million to support the school's residency programs and \$2 million to assist the medical school in recruiting additional faculty. Says Lester: "Sentara has been one of our greatest supporters and champions, and we are grateful to them for their vision. Our partnership offers our community access to more doctors, more research and better health care."

A component of the agreement involves regularly

scheduled senior level management meetings with representatives of both EVMS and Sentara in attendance. Together, officials develop and monitor all joint projects, and joint working committees oversee EVMS' residency program, operations and research.

According to Mary Blunt, corporate vice president and administrator of Sentara Norfolk General Hospital: "At any given time, we have approximately 110 EVMS residents working throughout our health system. They help us and we help them—it's a perfect marriage."

## Research is key to EVMS' bright future

Research is an integral component of EVMS' mission, and as dean, Pepe has led faculty in developing a strategic initiative to grow EVMS' research enterprise. His *Strategic Initiative for Research Development: 2006–2011* calls for EVMS to cluster new faculty recruitment in four areas where the school and its partners have specific strengths and the local community has specific health needs: heart and vascular disease; diabetes, metabolism and obesity; women's health and infant development; cancer biology; and infectious diseases.

Pepe, with financial support from Sentara Healthcare, recently recruited Dr. Jerry Nadler to become chair of EVMS' Department of Internal Medicine. Nadler, a nationally renowned physician-scientist, was the Kenneth R. Crispell Professor of Medicine and chief of the Division of Endocrinology and Metabolism at the University of Virginia School of Medicine before joining EVMS on July 1 this year. "He is the best in his field and brings specific expertise in two of the four research focus areas," raves Pepe. "He also brings a proven track record of success in leading clinical and research teams that get results."

Nadler's work has furthered the medical community's understanding of how diabetes develops and how it can lead to cardiovascular disease. Under his leadership, the University of Virginia's endocrinology program became one of the leading programs in the country, ranking eighth in the nation in a 2007 survey published by *U.S. News and World Report*. He and his team secured substantial research funding from the National Institutes of Health, the American Heart Association, the American Diabetes Association, the Ella Fitzgerald Charitable Foundation and the Juvenile Diabetes Research Foundation, among others.

At EVMS, Nadler will expand ongoing research in the school's Strelitz Diabetes Center and help establish a premier cardiovascular research center.

Nadler is also conducting research in the hopes of developing new medications that can prevent the body from destroying insulin-producing cells. Cells need insulin to convert food into energy. In people with diabetes, insulin-producing cells are destroyed when the body's immune system mistakenly identifies these essential cells as foreign invaders. Nadler's research could one day help people with both adult (Type 2) and juvenile (Type 1) diabetes. In addition to his administrative, research and teaching responsibilities, Nadler provides clinical care to patients through EVMS Health Services—the school's not-for-profit physician practice.

Two months after Nadler joined the school's faculty, more good news followed. The U.S. Agency for International Development awarded the school's CONRAD (Contraceptive Research and Development) program \$100 million—the largest grant in EVMS' history—to continue its development work on microbicides—agents that destroy microbes, or organisms that are too small to be seen by the naked eye. Microbicides may one day become a means to prevent sexually transmitted infections, including HIV/AIDS. An effective microbicide for this purpose is not currently available, although clinical testing and trials are being conducted.

CONRAD, which is a program of the EVMS Department of Obstetrics and Gynecology, is focused on developing affordable products and methods for women that provide contraception and/or prevent the sexual transmission of HIV/AIDS and other infections.

Microbicides will eventually be available in a variety of forms including topical gels, creams, tablets, films (thin, dissolvable squares) and pills; and they may become an important HIV prevention option for women, who

account for approximately half of all people living with HIV globally.

## Patient care at the heart of the institution

According to Koch's 2007 study, *An Economic and Medical Springboard: Eastern Virginia Medical School*, EVMS annually provides almost 100,000 young people with unbilled medical services that include counseling, vaccination and illness/disease prevention. Approximately 7,500 adults benefit from similar gratis services. "Public service is one of the most important tasks of a medical school, and EVMS shines in this regard," writes Koch. "EVMS personnel provide impressive amounts of unbilled public service to the Hampton Roads community."

The school delivers these services to residents through various avenues, including its not-for-profit physician practice, EVMS Health Services, as well as

*"Public service is one of the most important tasks of a medical school, and EVMS shines in this regard."*

— Dr. James V. Koch, past president of Old Dominion University, in a report on EVMS' regional impact.

in concert with various health care facilities, including those of CHKD and the Bon Secours Hampton Roads Health System.

EVMS Health Services is comprised of more than 150 physicians with full-time clinical practices in 20 specialties in primary care, medical and surgical care and radiation oncology. Most specialties of EVMS Health Services are available on the EVMS campus, while other offices are located throughout the greater Hampton Roads region.

The school's medical practice also uses an electronic health record (EHR) system developed by Allscripts, a Chicago-based software company, which replaces paper medical charts with secure computerized records. The managing software acts as a centralized care system that allows instantaneous appointment scheduling, entry of patient records and retrieval of information from any of the practice's specialties and locations. The software also ensures safety in prescribing, legibility of records, quick response to medication recalls and the ability to easily identify early outcome indicators in chronic disease management.

For the past two years, Allscripts has given EVMS Health Services the "Inform Award," which it presents to one of its 40,000 clients that demonstrates the most innovative use of clinical information to improve quality of care and operational performance.

EVMS Department of Pediatrics, located at CHKD, is staffed by eight faculty members who focus on disease prevention and health promotion and education within the community. These faculty members provide free services that include asthma intervention, obesity reduction, immunizations and child booster seat safety checks.

It is not just faculty who are committed to providing free services to the community. EVMS students offer their services as well; for example, on Tuesday nights students can be found at Bon Secours Maryview Foundation Healthcare Center, a free clinic in Portsmouth. The mission of the free clinic is to promote a sustainable community service that benefits the uninsured, low-income residents of Portsmouth while providing a unique educational experience for members of the EVMS community. On Tuesday nights, the Maryview Center stays open late to host the My HOPE free clinic. Created by EVMS students in 2006, this after-hours clinic is staffed by some of the school's students under the direction of Dr. Amy Price, an assistant professor of family and community medicine at EVMS, who works at the clinic part-time.

One Saturday in April, EVMS students and faculty hosted their annual Community Care Day at the Norfolk YMCA, where they work to increase

health awareness among local residents. The event features free screenings, health information and kid-friendly entertainment.

On the same day in April, students and faculty from the Physician Assistant program hosted their first Children's Health Fair at Norfolk's Chesterfield Academy. The elementary school's students learned about nutrition, safety and general health. Financial assistance from the Physician Assistant Foundation allowed the program to purchase bicycle helmets and car booster seats to give away at the event, and the

American Academy of Physician Assistants provided 500 children's books to be handed out. The Norfolk Fire Department also was on hand to conduct car seat safety checks and teach kids about fire safety.

At free health clinics and community events such as these, in campus research labs and area hospitals where residents train, and in the medical practices of alumni around the region, EVMS is proving the power of a quality medical education, improving health both today, and in the future, for the Hampton Roads region. ■