



THE FINAL BEQUEST

What struck one student was the nail polish. “When I looked down and saw her red fingernails,” says second-year medical student Sandhya Rangarajan, “that’s when it hit me that she was a real person who’d had a family and friends and a life.”

Student Lucie “Tex” Ford says each one was a reminder that she pursued medicine to help others. “We couldn’t be physicians without them,” she says. “Their impact is huge.”

These students are speaking of the whole-body donors — also known as cadavers — that they dissect in anatomy lab to learn how the body works. The donors are supplied through the Virginia Department of Health’s State Anatomical Program.

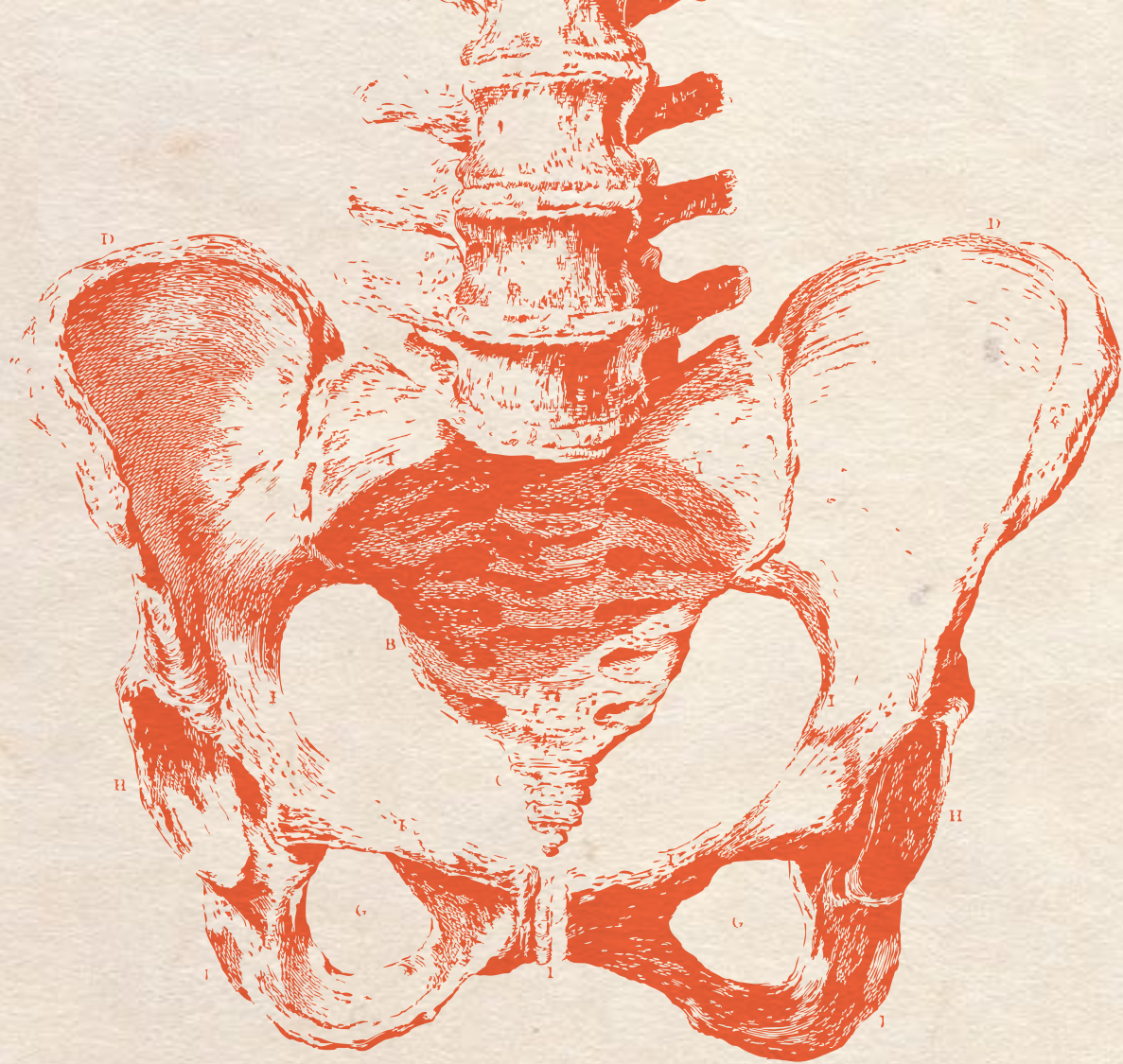
“EVMS couldn’t exist without these gifts of body donors,” says Craig Goodmurphy, PhD, Associate Professor of Pathology and Anatomy. “They are the best teachers we have.”

Before their teaching begins, most students wrestle with emotions triggered by the reality of body dissection. Some step out of the lab to regain their composure. A few faint. For that reason, until it’s time to dissect the head later in the course, students often choose to keep their donors’ faces covered.

Anatomy professors know that the way students handle these “first patients” can set the tone for how they deal with future ones. For second-year MD student Matthew Gillen, the experience was transformative. Body dissection, he says, was his first tangible encounter with the philosophy of humanities in medicine.

“It was really all about people — how we treat one

“Here death gladly surrenders to life.” — FROM A SIGN IN THE EVMS ANATOMY LAB



another, how we interact with one another,” Mr. Gillen says. “It taught me that medicine is so much more than just the science. In the beginning, I wasn’t sure what to expect because I was about to invade all aspects of a person’s life to learn about the human body. But then over time, you do have to separate yourself from your emotions and let the science take over.”

Ms. Rangarajan occasionally forgot that her donor — the one with the polished nails — couldn’t feel pain. “My initial reaction would be to hold her hand,” she says. Sometimes she couldn’t help but wonder how much pain her donor had been in before she died. “Was she able to address her pain?” she asks. “Did she know what was wrong?”

It’s been 18 years since Marissa Galicia-Castillo, MD (MD ’97, Internal Medicine Residency ’00), studied anatomy, but she still remembers her body

donor as a teaching partner. Now the Sue Faulkner Scribner Distinguished Professor in Geriatrics at EVMS and Associate Professor of Internal Medicine, she also recalls being surprised by all the variations in each body.

“There are certain commonalities, of course,” Dr. Galicia-Castillo says, “but just as it’s reflected in our practices today, there’s a uniqueness that has to be taken into account. As we say, if you’ve seen one patient, well, you’ve seen one patient.”

Ms. Rangarajan, too, was fascinated to learn how different each body is. “It’s an interesting dichotomy because the structure is the same, but just as everyone has their own personality, every body is different, too.” And she’s been amazed by how durable human bodies are. “They’re so well built. They really are fit to last a long time.”



“EVMS couldn’t exist without these gifts of body donors.”

— CRAIG GOODMURPHY, PHD



THERE IS NO SUBSTITUTE FOR A REAL BODY

During an anatomy class about the arm's brachial-plexus nerve, a faculty member explains to a group of Health Professions students dissecting the nerve how easily it can be damaged by using crutches.

Across the room, another professor asks a different group what a shooting pain in the nerve would tell them. Dr. Goodmurphy circulates and reminds students, "Out of respect for the donors, please keep your area tidy and your instruments organized." A sign in the lab says, "Remember that your cadaver is your first patient."

About a decade ago, some medical schools began moving away from dissecting cadavers to teach anatomy virtually. But the trend didn't catch on, and it was never adopted at EVMS. "There is no substitute for a real body," says Paul Aravich, PhD, Professor of Anatomy and Pathology.

Ms. Rangarajan agrees. Being able to hold a real heart and see it from all angles, she says, deepens a student's understanding of the organ. "It's an invaluable experience."

Donors who died from conditions like cardiac disease or metastatic lung cancer, Dr. Aravich explains, are more than teachers of anatomy. Unlike digital representations of bodies, he says, "These donors can help educate students about aspects of medicine that relate to pain and suffering."

Ms. Ford, a first-year medical student, has been a paramedic with the Virginia Beach Volunteer Rescue

Squad since 2005. Because of that work, anatomy lab wasn't her first experience with the deceased, but it was one that affected her deeply.

"From the beginning," she says, "we're told never to forget that these are people who had families and feelings. On the first day of class, we just stand there with our donors and spend a few minutes in silence appreciating them. One physician said, 'Just think about it. If that person was your family member, what would you do?'"

Several years ago, Dr. Goodmurphy, who oversees the EVMS Anatomy Lab, made the decision to donate the body of an immediate family member. "That person gave something to students that nothing else could provide," he says.

To further demonstrate their respect and appreciation, EVMS students hold a memorial ceremony for the body donors each spring. This year's ceremony was in April, and family members of the donors were invited for the first time ever.

"We wanted to show our gratitude to these donors and their families," Mr. Gillen says, "for this tremendous gift they gave us." □

"These donors can help educate students about aspects of medicine that relate to pain and suffering."

— PAUL ARAVICH, PHD



To view a video about how EVMS anatomy students learn from body donors, visit evms.edu/magazine.



LIVE ON THROUGH SCIENCE

The State Anatomical Program, established in 1919, is the only agency in Virginia legally authorized to receive donations of human bodies for scientific study. Unless a donor specifies a certain medical school or university, bodies typically are sent to an institution in another part of the state to reduce the possibility of being recognized.

Rick Sikon is the program's Operational Director. He says that about 600 bodies are donated each year, but the program accepts only between 325 and 350 of them. This is well below the 500 that are needed, a number that has grown in recent years as new medical schools have opened in Virginia. Excessive weight, amputations, contagious diseases and other restrictions preclude about 40 percent of donated bodies from being accepted.

Mr. Sikon hopes more people who inquire about the program, such as Hampton Roads-based writer Bobbie Fisher, will complete the paperwork to donate. Ms. Fisher, who contributes articles to two regional health publications, specified in her paperwork that upon her passing, she wants her body donated to EVMS.

"It's like doing a good deed after you're gone," Ms. Fisher says. "It's how doctors and other health professionals learn. I don't want someone performing surgery on me who's only ever seen a body in a book."

Not only do body donors teach medical and health professions students, they're also used at Virginia universities to help advance medical research, surgical techniques and even safety restraint systems in vehicles.

"They benefit our lives in so many ways," Mr. Sikon says. "We will always try to find places for people who wish to donate their bodies."

A few years ago, Ms. Fisher lost her mother to lung cancer. "I watched her die," she says, "but I also watched her have a year she wouldn't have had if people hadn't chosen to donate their bodies and advance medical knowledge."

To learn more about body donations and how to donate your body, visit evms.edu/magazine