



Medical Education at the University of Virginia
Transforming the Landscape of Health Care



American medical education is changing and changing rapidly. The traditional model of a professor standing at a lectern in front of students in a lecture hall is largely obsolete. Preparing students for modern medical practice requires a different environment, utilizing new teaching skills and tools.

Medical schools must prepare tomorrow's doctors to respond to a constant stream of new information about disease diagnosis, treatment, and patient care. Students must be able to evaluate data, understand sophisticated reports, and be aware of emerging technologies. They must participate in a wide variety of hands-on clinical experiences. In short, they must have access to the latest information and tools in order to be effective advocates for their patients.

The University of Virginia School of Medicine is well positioned to meet the needs of the medical profession. Established by Thomas Jefferson nearly 200 years ago as one of the original schools in his University—and recognized today as a national leader in training outstanding caregivers—the School of Medicine is developing new models that will effectively transform how doctors are educated. Our **\$45 million campaign for medical education** will provide the resources for this transformation.



THE TIME IS NOW

Dr. Charles Campbell (Med '76) wants to ensure that the School of Medicine is well equipped to educate future generations of physicians. A North Carolina ophthalmologist, Medical School Foundation and UVA Health Foundation trustee, he is well aware of the challenges his alma mater faces.

“The medical education paradigm has shifted—rather than a set of immutable facts, students now learn principles and current theories that are under constant scrutiny, study, and change,” he says. “The faculty prepares students for a lifetime of learning. The new medical education facility will utilize current and anticipated technologies that will help the faculty implement the new educational paradigm.”

Dr. Campbell chairs the Medical Education Campaign Steering Committee and encourages those who share his love for the University to support the \$30 million construction project in particular. “Time is the issue,” he says. “The sooner we raise funds for the building, the sooner our students can reap the benefits that come with it.”

A New Home for Medical Instruction

In developing new models to educate physicians, the University of Virginia has consulted its own skilled medical faculty as well as experts around the University Grounds and across the nation. Research shows that many students learn best in small groups. Some retain information better when they *listen* to their instructors speak; others need to *see* what is being discussed in order to understand it. Many students benefit from hands-on learning experiences and technology-assisted presentations.

The Campaign for Medical Education will raise **\$30 million to construct the Claude Moore Medical Education Building**. The building, already supported by a \$12.5 million challenge grant by the Claude Moore Charitable Foundation and \$3 million from the School of Medicine, will feature the latest innovations to accommodate a variety of learning styles, including groundbreaking technology to aid instruction.

The state-of-the-art teaching facility will assist the School of Medicine in attracting the best and brightest medical students and ensuring them of an education informed by the latest teaching methods and technologies. In addition, the building will support a focus on clinical medical education that fosters collaboration, builds patient care skills, and teaches appropriate use of information technology in the clinic.

Embracing Innovation and Technology



artist's conceptual drawing

DESIGNED FOR LEARNING

The new Claude Moore Medical Education Building* will address the following needs:

- Consolidate programs housed in buildings across the Health System. The newest of these, Jordan Hall, is 30 years old; some date to the 1930s.
- Construct facilities for a Clinical Skills Teaching and Assessment Center and small- and large-group interaction. Currently, faculty offer clinical instruction in the University Hospital, borrowing space after hours.
- Incorporate 21st-century technologies, including individual wireless communication and classrooms with multimedia capabilities.
- Create a Medical Simulation Training Center employing virtual reality and equipped with computerized mannequins programmed to simulate illness.

* Pending approval by the UVa Board of Visitors

A student using virtual reality technology to “travel” inside the human heart. An instructor asking her students to identify a dermatological condition, as images flash on multiple high-definition screens that surround the classroom. A computerized patient complaining of chest pains suddenly going into cardiac arrest—and students scrambling to save his virtual life.

Such experiences will become powerful teaching moments in the new Claude Moore Medical Education Building. Here, the School of Medicine will design space to develop innovative new teaching models, while, at the same time, accommodating those practices that have become the gold standard in educating new physicians.

The new building will include a high-tech Medical Simulation Training Center and a Technology Enabled Active Learning (TEAL) classroom similar to one pioneered by Microsoft Research at the Massachusetts Institute of Technology. The building will also include a Clinical Skills Teaching and Assessment Center in which students can be observed and videotaped while working with standardized patients to refine their exams and interactions. Finally, the School of Medicine plans to take advantage of new virtual reality technology under development in the UVa School of Architecture to create an exciting teaching tool that will ultimately offer students a three-dimensional view of medicine.



MEDICAL SIMULATION TRAINING CENTER

In the Medical Simulation Training Center, Dr. Marcus Martin will teach using highly sophisticated computerized mannequins that can be programmed to realistically simulate a variety of illnesses. Students learn lifesaving techniques and gain the confidence to perform in high-pressure situations.

“I was fortunate to have the chance to check a patient’s blood gases while in school,” says Dr. Michael Richardson (Med ’05), “but not every student has such an opportunity. The center will make these experiences universally available.” Richardson, a former Mulholland Society president, served as a student member of the committee charged with planning the new medical education building.

Support for Faculty and Students

Each year, in its annual rankings, *U.S. News & World Report* recognizes the University of Virginia School of Medicine for the outstanding education it offers future physicians. UVa currently ranks 9th among the nation’s state-assisted medical schools.

Medical faculty members, renowned for their clinical and research expertise as well as their classroom skills, have helped to maintain the School of Medicine’s reputation at this impressive level. They also play a vital role in attracting critical research funding. Over the next 10 years, the School of Medicine will intensify its focus on faculty and teaching by endowing an Academy of Medical Educators. The school will also establish endowed mentorships and research awards to encourage greater faculty involvement in teaching and research.

Students also contribute to a school’s reputation, with medical schools competing nationally for the highest qualified candidates. Students choose their schools based on faculty, scholarship support, national rankings, and facilities. Over the years, alumni and friends of the School of Medicine have generously contributed to scholarships aimed at strengthening the student body and opening the door to all talented students. The school will continue to build its scholarship support to ensure the strongest possible corps of students graduating with the lowest possible debt burden.

As UVa develops models to transform medical education, the School of Medicine will seek **\$10 million in professorship and scholarship endowment support for extraordinary faculty and students** who give the school its enduring strength and character.



NEW MODELS OF TEACHING

Active learning assisted by technology is key to the future of medical education. With the new building, UVa will become the nation's first medical school to introduce a Technology Enabled Active Learning (TEAL) classroom. Here, students interact with the larger group through networked computers and video monitors, while instructors offer individualized help. Learning capabilities within this setting will be measured and assessed in ongoing efforts to develop an ideal environment for modern medical education.

Innovations in Medical Education

With custom-designed classrooms, high-tech simulations, realistic clinical interactions, and other inventive tools, the UVa School of Medicine is developing new ways to teach medicine that will ultimately transform the educational experiences of students and faculty nationwide. These models, which are being created and tested by the school's skilled instructors, build on the time-honored basic medical curriculum enhanced by the latest in technology. In addition, we will apply vigorous methods of evaluation to test the effectiveness of various tools and to hone our ability to instill in each student the knowledge and skills he or she will need to succeed.

It is only natural that UVa should lead such innovations in education and curriculum. Nearly two centuries ago, Thomas Jefferson created his Academical Village as a place where students and faculty could live and learn together. Today, collaboration remains a hallmark of the University's educational experience—and a force in innovation.

But collaboration and innovation cannot flourish unless they are nurtured. **To fund continued innovation in medical education, as well as ongoing evaluation and refinement, the school will seek an additional \$5 million in unrestricted private support** over the course of the campaign.

Transforming American Medical Education

The University of Virginia School of Medicine is well positioned to meet the profession's rapidly changing needs, thanks to its reputation for academic excellence. But to transform medical education as it is currently known, the school will require substantial private support. Accordingly, the UVa Health System has embarked on an ambitious **campaign to raise \$45 million** for three major purposes: \$30 million to create a permanent home for medical education, \$10 million to enhance endowment support for students and faculty, and \$5 million to fund innovation in medical education.

The need for a new education facility is especially urgent, as its construction will facilitate other advances. Because construction costs rise every year, supporting the Claude Moore Medical Education Building *now* represents the best opportunity for alumni and friends to move the campaign forward. But support of all of the campaign's priorities is important. Each affords alumni and friends of the School of Medicine a once-in-a-lifetime opportunity to contribute to the future of American medicine—and to do so at a time when the profession has never had more to gain from their assistance.



For more information or to make a gift, contact the UVa Medical School Foundation at 434-924-1734 or the UVa Health System Development Office, 800-297-0102 or 434-924-8432.

UNIVERSITY OF VIRGINIA SCHOOL OF MEDICINE HIGHLIGHTS

- *U.S. News & World Report* ranks the School of Medicine as 9th among the nation's state-assisted medical schools.
- The UVa School of Medicine, which opened in 1825, was the 10th medical school to be established in the United States and one of the original eight schools created as part of Thomas Jefferson's vision for the University of Virginia.
- The School of Medicine enrolls a total of approximately 550 students. Each entering class consists of approximately 140 students with an overall grade point average of 3.67.
- The faculty totals approximately 850, most of whom have shared clinical, teaching, and research responsibilities.
- In addition to traditional classes, the school offers several unique educational opportunities, including "Cells to Society," a course that approaches illness from both the cellular and clinical level; another course focusing on the diagnosis and treatment of the American health care system; and an integrated approach using expert faculty, standardized patients, and simulators to teach and assess clinical skills.
- The school sponsors the first and only medical student-run Medical Reserve Corps project in the nation, which assists in disaster medical response and has been recognized as a national model.



University of Virginia School of Medicine

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