The Study of Medicine
Preparing the next generation of leaders in biomedicine
“When I first entered Washington University School of Medicine I was excited and a little nervous to be entering a medical school known worldwide for its academic excellence. I couldn’t wait to get my medical training started, surrounded by an impressive group of fellow students and distinguished faculty. As I studied here, stayed here and eventually built my career here, I could not have predicted the profound impact that this university would have on my development as a physician. It has been like a “home” to me. I’m not sure that I could have found this supportive medical community anywhere else.”

Sandra Klein, MD, ’01, associate professor of orthopaedic surgery, Washington University

“When I came to interview, I, of course, knew of Washington University School of Medicine’s academic prowess — but being an international student, I knew nothing about St. Louis; being used to the hustle and bustle of Mexico City, I wasn’t sure I’d fit in here. Now, I can’t really picture myself anywhere else. St. Louis has so much to offer that it will definitely grow on you as much as it has grown on me. WUSM’s supportive community, approachable faculty, diverse student body and incredible wealth of opportunities for professional and self-development all contribute to make this place unlike any other.”

Jorge Zarate Rodriguez, WUSM M2, class president

“When I was choosing a medical school, I wanted to go to a place that had a strong historical presence but would allow me to mold my own form of medicine. The community at Washington University strives to create a nurturing environment so you can determine what medicine means to you in the context of a prolific medical history. The deans, the professors and my classmates have helped me to explore the different facets of medicine in ways I could not have imagined and have provided endless support through the process. The culture of the institution and its many strengths in science, medicine, public and global health, community involvement and entrepreneurship enable students, faculty and staff to reach their full potential. This environment is truly unique to Washington University School of Medicine.”

Miriam Ben Abdallah, WUSM M3, class president; co-coordinator, Saturday Neighborhood Health Clinic

Contents
A Student-Centered Environment | 1
Contemporary Curriculum | 2
Outstanding Clinical Training | 4
Student Involvement | 6
World-Renowned Research | 8
Impressive Facilities for Clinical Training | 10
Outstanding Career Preparation | 12
Active Student Life | 14
St. Louis: Sophisticated and Friendly | 16
Ready to Apply? | 18
Contact Us | 20

COVER: First-year students (left to right) Julian Clarke, Maeve Woeltje, Tanvi Subramanian, Yusef Jordan and Patricia Lu stand in front of the BJC Institute of Health at Washington University.
A Student-Centered Environment

Join our community of scholars

Washington University School of Medicine has a long history of academic excellence. High standards distinguish the school, but what truly sets Washington University apart is its collegiality and an enduring commitment to providing a welcoming and supportive environment in which to learn the practice of medicine. Joining the community of scholars here puts you amid

• extraordinary students who bring out the best in each other,
• faculty who show their passion for teaching every day and
• administrators who respond to students’ needs.

We invite you to discover our student-centered approach to education and become a part of our global health enterprise.
Our faculty recognize that students have various learning styles. For that reason, our dynamic curriculum incorporates:

- interactive lectures and laboratory sessions,
- small-group interaction with case-based discussions,
- self-directed learning and — of course —
- broad clinical training at the bedside led by master clinicians, starting from first year.

Online syllabi, notes, recorded lectures, a learning-management system and access to detailed images result in an enriched environment that supports our students’ learning in the ways that work best for them as individuals.

Our core educational resource is people; students learn by working together.
and by trading insights with caring faculty who relish the opportunity to teach the best minds who will become the future leaders in medicine. Surrounded by colleagues who celebrate learning and discovery, classmates find support in one another, joining as colleagues in collaboration.

Working together in small groups, students and faculty continually refine the curriculum to ensure that it remains current and effective. Pass/fail grading in the first year levels the playing field for highly selected and recruited students from diverse backgrounds and encourages collaborative learning. Integrated longitudinal threads in the curriculum cover issues of medical humanities, professionalism, patient safety and quality improvement, cultural competency, public health and ethics throughout the four years of study.

**Curriculum Overview**

**First Year:** Patient contact begins in the first month and continues during the pre-clinical years through the Practice of Medicine course. Courses address normal human structure and function, neuroscience, physiology, cell biology and genetics. Selectives offer exposure to diverse aspects of medicine and subspecialties.

**Second Year:** Studies focus on the effects of disease on body structure and function. Expanded clinical experience is integrated with courses in pathology, pathophysiology and pharmacology.

**Third Year:** Core clinical clerkships occupy the whole year and include ambulatory care.

**Fourth Year:** Elective with a one-month required Capstone course.
Washington University’s extensive clinical facilities, large patient population and superlative clinical teachers provide an environment for exceptional clinical training. Our students have early access to hands-on patient care, working in small groups with master clinicians, residents and fellows. In the process, they learn how the areas of medical science interrelate and how leading-edge technology is applied.

In addition to early patient exposure, our students benefit from a flexible curriculum that allows them to customize their medical school experience. Students are taught by an accessible, supportive faculty that is among the most prestigious in the country. Our faculty often perform dual roles as basic scientists and clinicians, bringing the most current knowledge and methods of inquiry from the laboratory to the bedside and supporting translational research.

Clinical training emphasizes both the science of medicine and the art of effective communication with patients. Under the watchful eyes of seasoned clinicians, medical students begin learning to take histories and to examine patients soon after starting medical school. A fourth year of electives allows students to customize their preparation for the years of professional development that follow medical school.
Mark Manary, MD, professor of pediatrics, developed a ready-to-use, peanut-butter-based therapeutic food that is now the World Health Organization’s standard for treatment of malnutrition worldwide. WUSM students help Manary enroll thousands in his Project Peanut Butter each year.
Our students can participate in more than 50 student-run activities, many of which focus on the community — local, national or global. This commitment to service, strongly supported by the administration, provides an environment in which students can contribute to their community, develop leadership skills and enrich their academic experience.

Demonstrating their outstanding character and motivation, classmates join forces through student organizations to find outlets for self-expression and to devise practical solutions to real problems — many of them related to medicine.
STUDENT ORGANIZATIONS

GOVERNMENT AND POLITICS
• The American Medical Student Association is a student-run national organization dedicated to representing the concerns of medical students.
• The American Medical Women's Association sponsors mentor programs and seminars.
• The Asian-Pacific American Medical Student Association promotes awareness of Asian-American health issues.
• Medical Student Government shapes the school's future and has been the impetus for many curriculum changes.
• Physicians for Human Rights promotes health by working to protect human rights via education.
• The Student National Medical Association is committed to supporting underrepresented minority medical students and addressing the needs of underserved communities. The position of Latino Medical Student Association (LMSA) representative was created to cover the important and expanding field of Latino health.

SERVICE AND SUPPORT
• The Saturday Neighborhood Health Clinic, in conjunction with Family Care Health Centers, provides free medical care to the uninsured in the nearby Forest Park Southeast neighborhood.
• The Student National Medical Association is committed to supporting underrepresented minority medical students and addressing the needs of underserved communities. The position of Latino Medical Student Association (LMSA) representative was created to cover the important and expanding field of Latino health.

WELLNESS
• The Culinary Medicine Program is a student group that teaches St. Louis families the principles of healthy eating.
• The Perinatal Project matches medical students with high-risk expectant mothers to improve prenatal care.
• The Pediatric Outreach Program matches children suffering from chronic illnesses and their siblings with medical student big brothers and big sisters.
• The Smoking Cessation Project trains students to help patients stop smoking through group and individual counseling using the American Lung Association's program.
• Students Teaching AIDS to Students delivers AIDS awareness to junior high schools.
• The Young Scientist Program works to attract high school students from disadvantaged backgrounds to scientific careers through hands-on research and individualized contact.

THE ARTS
• The Student Arts Commission fosters artistic expression by students, faculty and staff, adding richness to the medical school community.
• The annual student-sponsored art show is prominently featured in a major teaching facility.
• Students showcase performance talent in twice-yearly coffeehouses.
• The annual student musical is a Broadway-style, student-produced performance.

JUST FOR FUN
• Washington University Medical Plunge is a week-long orientation in public health, community medicine and neighborhood nonprofits.
• The Student Support Services group promotes health, happiness and overall well-being in the medical school community.
• Cori, Erlanger-Graham and Lowry-Moore Academic Societies provide a forum for students and faculty to interact in informal settings.

For a comprehensive list, please visit mdstudentaffairs.wustl.edu/student-groups

STUDENT PUBLICATIONS
• Dis-Orientation Guide: A survival guide to the school and city
• Hippocrene: The literary magazine of Washington University School of Medicine
• Student Yearbook
World-Renowned Research
Rich in the discovery and application of new knowledge

Washington University’s research enterprise is among the most extensive in the world. The school conducts internationally renowned clinical and basic research in neuroscience, diabetes, diagnostic imaging, cardiovascular diseases, genetics, immunology and many other fields. Gifted faculty investigators help students learn how these discoveries influence practice at the bedside.

Research opportunities for medical students are abundant and encouraged, although not required. Funding and training opportunities are available for those who aspire to develop themselves as clinical researchers. The Summer Research Program for second-year medical students has generated more than 1,000 student publications since its inception.

The 680,000 square-foot BJC Institute of Health at Washington University School of Medicine is an 11-story research building housing laboratories and support facilities for BioMed 21, the university’s multidisciplinary research initiative dedicated to rapidly translating basic research findings into advances in medical treatment. The university has dedicated more than $300 million to BioMed 21, including private support and NIH funding. A $30 million gift from BJC HealthCare helped to construct the Institute, which opened in December 2009. It is the school’s largest building.

At the Institute, medical students join seasoned investigators to conduct research in areas such as high-throughput imaging and genomic technologies for cancer research, diabetic cardiovascular disease, neurodegeneration, women’s infectious diseases and membrane excitability disorders. The facility also houses several other key research initiatives and academic departments and divisions.

Faculty Highlights

- 19 Nobel laureates have been associated with the School of Medicine.
- 11 faculty members are fellows of the National Academy of Sciences; 25 belong to its Institute of Medicine.
- 93 faculty members hold individual career development awards from the National Institutes of Health.
- Four faculty members are Howard Hughes Medical Institute investigators.

For more information, visit mdstudentresearch.wustl.edu
Groundbreaking research efforts currently include:

• Seeking new ways to diagnose and treat stroke as part of a national network of state-of-the-art stroke treatment centers.

• Decoding the genomes of hundreds of cancer patients to identify mutations underlying the disease.

• Leading an international research collaboration to study inherited forms of Alzheimer’s disease and conducting one of the first clinical trials to evaluate whether the disease can be prevented before memory loss and dementia develop.

• Developing and using nanoparticles for molecular imaging and targeted drug delivery for cancer and heart, lung and vascular diseases.

THIS PAGE: Students showcase their research at a poster presentation event held annually in the atrium of the Farrell Learning and Teaching Center. OPPOSITE: Pictured with Koong-Nah Chung, PhD, associate dean for medical student research (center left), and Roz Robinson, program coordinator for the Office of Medical Student Research (center right), are Howard Hughes Medical Institute fellowship recipients (from left) Kow Essuman, Julia Wagner, Amy Xu and Jessie Ge.
Impressive Facilities for Clinical Training
Experience a broad patient base in an intimate mentoring environment

The state-of-the-art Farrell Learning and Teaching Center (FLTC) includes flexible and convenient classroom and lab settings, a simulation center, computer rooms, study carrels and inviting social areas. The facility serves medical and graduate students, providing an inspiring learning environment that helps students bring out their best.

Washington University Medical Center is one of the nation’s largest academic medical centers. Its on-site hospital affiliates provide 1,547 licensed beds; two of those affiliates, Barnes-Jewish Hospital and St. Louis Children’s Hospital, are members of BJC HealthCare, the first integrated health care system in the country.

- Washington University Physicians, the school’s clinical practice group, handles a volume of roughly 1 million outpatient visits and 90,000 hospital discharges annually.
- Barnes-Jewish Hospital has been ranked among the nation’s best hospitals on the U.S. News & World Report Honor Roll since 1993.
- St. Louis Children’s Hospital is on the U.S. News & World Report Honor Roll of America’s Best Children’s Hospitals.
- The Alvin J. Siteman Cancer Center at Barnes-Jewish Hospital and Washington University School of Medicine is also nationally ranked.

Despite the size of the medical center, clinical education occurs largely at patients’ bedsides and in one-on-one or small group settings. It’s the best of all circumstances: a broad base of patients and an intimate mentoring environment.
The school uses simulation training, which allows students and trainees to treat lifelike mannequins that can breathe, sigh, blink and simulate medical conditions.
Outstanding Career Preparation
Supporting you to become the physician you want to be

As a student at Washington University School of Medicine, you will be free to individualize many components of your medical education. At the same time, you will be challenged to earn an education that is among the best in the world.

Our students are exceptional, both academically and personally. Our faculty are fully committed to excellence in teaching and are eager to share their experience and passion for the profession. Students find that faculty members are accessible for questions or discussion. Graduates advance to residencies at top university-affiliated hospitals and medical centers around the country.

Our students go on from training to pursue successful careers in primary care, all of the clinical specialties, academic medicine, public health, and clinical and basic research. No matter what your definition of success — seeing patients in a primary care office in an underserved region or pushing the boundaries of medical science at a major academic medical center — you can craft your direction and gain the necessary foundation at Washington University School of Medicine.

BELOW: Maeve Woeltje, medical student, examines a patient with Tom De Fer, MD, professor of medicine. De Fer’s mentorship program allows students to shadow community physicians.
Fourth-year students hone clinical skills in the Capstone course, which they rate as highly valuable for residency preparedness.
Active Student Life

Great energy characterizes students who “study hard, play hard”

The faculty and administration of Washington University are extremely proud of the school’s medical students. They meet the highest academic standards in the country and also possess many talents and interests outside of medicine including visual arts (painting, drawing, sculpture, photography), writing, dancing, music, literature, singing and athletics. Each class is diverse; current students come to the school from 45 states plus the District of Columbia and Puerto Rico, and from 13 foreign countries.

Although the medical curriculum is rigorous, our students still find time to relax and have fun. “Study hard, play hard” is their unofficial motto, reflecting the intensity, drive and sense of exploration they share. Camaraderie is an overriding quality of the school; classmates provide a built-in source of personal support and friendship.
The School of Medicine is located in the city’s Central West End, where student lifestyles are accommodated by sidewalk cafes, coffee houses, bistros, bookstores and affordable apartments with timeless character.

Tennis and basketball courts on campus are used day and night. Forest Park’s golf courses, jogging/bike path and athletic fields are just across the street. The university’s Danforth Campus athletic facilities, accessible by MetroLink light rail (free to full-time Washington University students), include an Olympic-size pool, indoor track and training equipment. Medical school teams in the university’s intramural program have won championships in co-ed basketball, softball, swimming and Frisbee."
St. Louis: Sophisticated and Friendly
A home base for a global School of Medicine

The “Gateway to the West” is a thriving metropolitan area of 2.8 million people that retains the friendly character of the Midwest. The fun and culture of a big city are readily available, but living here is easy and affordable.

Forest Park, located adjacent to the Medical Center, is a haven for students. Home to St. Louis’ zoo, science center, art museum and the Missouri Historical Society, the park also offers public tennis and golf courses, an outdoor ice rink, a 12-kilometer paved trail, picnic areas, athletic fields and a system of scenic lagoons and waterways.

St. Louis is a sports-minded city that enthusiastically supports Cardinals baseball, Blues hockey and a number of semi-pro teams. Many other types of entertainment also are available. The Missouri Botanical Garden offers beautiful displays year round. The Saint Louis Symphony is among the country’s best, and the city is home to
several first-rate theater companies. The historic Fox Theatre presents Broadway shows, dance performances and concerts. Blues, jazz and rock bands are hot attractions in local clubs, and a large outdoor venue draws major concerts.

Washington University helps make getting around St. Louis easier: Full-time students are eligible to receive a free Metro pass that provides unlimited access to the entire transit system, including buses and light rail (MetroLink) that serve St. Louis City and County as well as Madison and St. Clair counties in Illinois.

Outdoor activities can be found within and around the metropolitan area; bike trails line both the Mississippi and Missouri rivers, and the Ozark mountains and river valleys are perfect for backpacking, camping, fishing and canoeing. St. Louis’ central location makes exploring nearby cities easy and inexpensive.

Learn more at www.explorestlouis.com
Ready to Apply?

Washington University School of Medicine offers its students several pathways leading to the Doctor of Medicine degree:
• Four-year MD degree program (Doctor of Medicine).
• Five-year MD degree program with a research year (Doctor of Medicine).
• MD/MA degrees program (Doctor of Medicine/Master of Arts), which provides 12 months of research.
• MD/MSCI degrees program (Doctor of Medicine/Master of Science in Clinical Investigation), which provides training in clinical research.
• MD/MPH (Doctor of Medicine/Master of Public Health)
• MD/MPHS (Doctor of Medicine/Master of Population Health Sciences)
• MD/PhD degrees program (Medical Scientist Training Program): One of the oldest, largest and most successful programs of its kind in the nation; admits up to 25 students for each entering class.

Personal Requirements for Admission
Standards for admission are high. Applicants must possess personal qualities of character, aptitude, integrity and motivation suitable for a career in medicine. Other personal attributes considered include extracurricular accomplishments and avocational interests.

Academic Requirements
Applicants must present evidence of superior intellectual ability and scholastic achievement as demonstrated by their academic record and performance on the Medical College Admission Test (MCAT).

Applicants must complete at least 90 semester hours of college courses in an approved college or university.

Required course work includes a minimum of one year in biological science, general or inorganic chemistry, organic chemistry, physics and calculus through integral and differential equations. Statistics can be substituted for one semester of calculus, and one semester of biochemistry can be substituted for one semester of organic chemistry. A course in biochemistry, though not required, is encouraged. In selected instances, one or more of these prerequisites may be waived by the Committee on Admissions, but applicants are strongly advised to pursue their interests in these and other areas of science. Although many applicants will have majored in one of the natural sciences, applications from those who have majored in the humanities or social sciences are equally welcome.

How to Apply
The first step is to submit an application to the American Medical College Application Service (AMCAS) of the Association of American Medical Colleges (AAMC). The AMCAS electronic application is available at the AAMC website, www.aamc.org.

Important Admission Information
• Applicants are encouraged to apply early. The application deadline is December 1.
• In addition to the AMCAS application, applicants must submit letters of evaluation, complete a secondary application and pay a $80 application service fee. Visit wumsapply.wustl.edu
• Following an evaluation of applicants’ credentials, carefully selected applicants are invited to St. Louis for an interview with a member of the Committee on Admissions.
Campus visits include extensive time with current students and tours of the hospitals, laboratories, Bernard Becker Medical Library, residence hall and other facilities of Washington University Medical Center.

- Admission decisions are made and the applicant is notified of the decision following a timetable that begins October 15 and continues until the entering class is filled.

**Merit Scholarships and Fellowships**

Merit-based scholarships are given annually to members of the first-year class. These scholarships, up to full tuition, are awarded without regard to financial need to students of proven academic excellence and distinguished personal achievements. All accepted students are considered for merit scholarships.

**Cost of Education**

Under the Tuition Stabilization Plan, tuition remains the same for the entire four-year program of study. Furthermore, tuition is comprehensive; there are no additional fees for health care coverage, hospitalization or disability insurance, and each student is provided a laboratory-grade microscope to use during the first and second years of study. The listed expenses provide an estimate of the cost for a single student in the 39-week first-year class for the 2016–17 academic year. Allowances for entertainment, travel, clothing and other miscellaneous items must be added to the estimate.

**Financial Assistance**

The ability to finance a medical education does not influence the student selection process. Because all students accepted for admission have proven scholastic ability, financial assistance is awarded solely on the basis of documented financial need. Students eligible for financial aid may request an application after they are accepted to the school. Decisions usually are announced within one week of receipt of the processed financial aid statement.

### Annual Expenses 2016-2017

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Technical Standards Statement

Graduates of Washington University with a Doctor of Medicine degree are expected to have broad competence in the basic skills that underlie the general practice of medicine and surgery. All graduates must be able to take a history, examine a person, synthesize the findings into a diagnosis and plan of evaluation and treatment independently. Thus, medical students must possess the requisite sensory, motor, communicative and cognitive capabilities to accomplish these requirements in a reliable manner in order to be competent and safe medical practitioners.

Nondiscrimination Statement

Washington University encourages and gives full consideration to all applicants for admission, financial aid and employment. The university does not discriminate in access to, or treatment or employment in, its programs and activities on the basis of race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information. Inquiries about compliance should be addressed to the university’s Vice Chancellor for Human Resources, Washington University, Campus Box 1184, One Brookings Drive, St. Louis, MO 63130. The School of Medicine is committed to recruiting, enrolling and educating a diverse student body.

Crime Awareness and Campus Security Act

The Protective Services Department of the School of Medicine is committed to developing and providing integrated services which promote the safety of people and the security of real and intellectual property. Information regarding the department and its services as well as the federally required annual security report can be found at wusmproserv.wustl.edu. For a printed copy of the annual security report, contact Protective Services, Biotechnology Center, Room G40, 4559 Scott Ave., St. Louis, MO 63110, (314) 362-4357.

Information in this brochure is current as of March 2016.
“To choose Washington University for medical school, I relied on advice from a mentor and friend who told me to surround myself with the brightest, most motivated people I could for my education and training. Although WUSM has been a humbling experience, it has allowed me the chance to learn and grow from incredible faculty, residents, and students. By the time I finish my MD and MPH, I will have traveled to four countries, an American Indian reservation, and several conferences. The Midwest hospitality here sealed the deal: warm faculty and staff, generous financial aid, a grounded work ethic, and a prioritization of balance in life. I am so happy I entrusted my MD training to Washington University.”

**Austin Wesevich, WUSM M4, MPH candidate**

“As a minority undergraduate student at The University of Maryland Baltimore County in The Meyerhoff Scholars Program, I was exceptionally educated and supported. When choosing a medical school, I was looking for an institution that would further allow me to pursue my aspirations. I sought an institution that would provide me with incomparable education, a diverse student body and an enriching learning experience to develop as a physician scientist. Washington University School of Medicine has surpassed all my expectations. I am amazed by my growth and the knowledge I have gained thus far and I look forward with excitement to the numerous experiences to come.”

**Chinwendu Amazu, M2, MSTP program**

“Washington University School of Medicine has the feel of a small liberal arts college in the setting of a world-class academic hospital. There is a sense of community and collaboration that makes the student experience more productive and more enjoyable. The school is committed to continually improving medical education, and you will probably graduate from a better medical school than when you enrolled.”

**Robert Brophy, MD ’01, associate professor of orthopaedic surgery, Washington University**

**Produced by the Office of Medical Public Affairs**

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For more about the study of medicine and the daily experiences of medical students at Washington University, visit mdadmissions.wustl.edu.