Overview of the School of Medicine

Mission & Vision

University Mission

Washington University’s mission is to discover and disseminate knowledge, and protect the freedom of inquiry through research, teaching and learning.

Washington University creates an environment to encourage and support an ethos of wide-ranging exploration. Washington University’s faculty and staff strive to enhance the lives and livelihoods of students, the people of the greater St. Louis community, the country, and the world.

Our goals are:

• to welcome students, faculty and staff from all backgrounds to create an inclusive community that is welcoming, nurturing and intellectually rigorous;
• to foster excellence in our teaching, research, scholarship and service;
• to prepare students with attitudes, skills, and habits of lifelong learning and leadership thereby enabling them to be productive members of a global society; and
• to be an institution that excels by its accomplishments in our home community, St. Louis, as well as in the nation and the world.

To this end we intend:

• to judge ourselves by the most exacting standards;
• to attract people of great ability from diverse backgrounds;
• to encourage faculty and students to be bold, independent and creative thinkers;
• to provide an exemplary, respectful, and responsive environment for living, teaching, learning and working for present and future generations; and
• to focus on meaningful measurable results for all of our endeavors.

Washington University School of Medicine Mission and Vision

Our Mission

Washington University School of Medicine will lead in advancing human health through the best clinical care, innovative research, and the education of tomorrow’s leaders in biomedicine in a culture that supports diversity, inclusion, critical thinking and creativity.

Our Vision

In leading the advancement of human health, Washington University School of Medicine will:

• cultivate excellence and collegiality within an inclusive community
• attract and develop a diverse, talented, academic workforce
• lead the revolution in biomedicine
• enhance our intellectual and technological environment to foster exceptionally creative research and education
• develop and maintain excellent clinical programs to provide outstanding care
• observe the highest standards of ethics, integrity and compassionate care
• apply advances in research and medicine to the betterment of the human condition locally and globally

Approved by Executive Faculty at their September 4, 2013, meeting.

History

The education of physicians at Washington University began in 1891. Under an ordinance enacted April 14, 1891, establishing a Medical Department of Washington University, the St. Louis Medical College (an independent medical college in St. Louis) was brought under the wing of the well-established university. The faculty of the college eagerly agreed to the union, stating “Most of the great medical schools of the world have always been integrant departments of universities, and the examples which America furnishes give added testimony to the fructifying influence of the contact of students and teachers of professional schools with the workers in universities.” Eight years later, the Missouri Medical College (another independent college in the city) also joined Washington University, and thus the two most famous medical colleges in the city were merged with the university.

In 1909, Abraham Flexner began a survey of 155 medical schools in the United States and Canada for the Carnegie Foundation for the Advancement of Teaching. The survey created a national sensation. Some schools collapsed, others pooled their resources, while still others reorganized. The Medical School of Washington University did not escape criticism. In the report Flexner made to Henry Smith Pritchett, PhD, president of the Carnegie Foundation for the Advancement of Teaching and former professor of astronomy at Washington University, he said that one of two courses must be adopted: “The department must be either abolished or reorganized.”

Dr. Pritchett mailed the report to Robert S. Brookings, a St. Louis merchant who was president of the Board of Directors of Washington University. Brookings was shocked and immediately went to New York to see Flexner, demanding proof that the conditions were as bad as described. Both returned to St. Louis and the two men went through the school. In less than
two hours, Brookings was convinced that drastic action was necessary if the school was to be one of the foremost institutions of medical education and research. The meeting in 1909 of Brooking and Flexner was of unsurpassed significance in the history of the Washington University School of Medicine, for it led to the complete reorganization of the school and the establishment of the present Medical Center. Abraham Flexner inspired the dream of a model medical school; Robert Brookings accepted the challenge, and with the energy and vision which characterized all his enterprises, made the dream a reality.

No time was lost in making changes. The Bulletin of the Medical School for July 1910 made the following statement: “The Corporation of the University, becoming convinced that in no other direction could greater service be rendered than through a great, modern medical school, determined to reorganize the School and to place it in the front rank of American medical institutions. It has called to the heads of a number of leading departments the ablest men it could secure.” When Robert A. Barnes died in 1892, he left a will which directed the trustees of his estate to use $840,000 for the erection and equipment of a hospital “for sick and injured persons, without distinction of creed, under the auspices of the Methodist Episcopal Church, South.” Investigation by the trustees into the cost of building a modern hospital convinced them that the sum was not large enough to build an efficient, fireproof building, and they therefore invested the trust. By 1912 the value had increased to $2 million, a sum which permitted the building of a hospital and left an endowment greater than the original fund.

At the same time the trustees were studying hospital construction, Robert Brookings was studying medical schools. It was apparent to everyone concerned that the two projects, the building of a medical school and the construction of a modern hospital, were so interrelated that the purpose of each would be more successfully fulfilled by an affiliation. A medical school would provide a highly trained staff and would assure the most modern methods and superior laboratory facilities for the hospital. A teaching hospital would give patients superior care and, at the same time, provide the essential clinical experience consistent with modern medical teaching methods.

In the spring of 1912, construction was begun on the medical school and hospital buildings which today form the nucleus of the present center. The laboratories were moved from their old quarters in downtown St. Louis into the new buildings on Euclid Avenue and Kingshighway Boulevard during the summer of 1914, and late in the fall of the same year the activities of the Washington University Hospital were transferred to Barnes Hospital. Concomitantly, the St. Louis Children’s Hospital, then located on Jefferson Avenue, became affiliated with the School of Medicine and moved to its new quarters in the Medical Center. On April 28, 29 and 30, 1915, exercises were held to celebrate the completion of this group of buildings designed to promote the practice, the teaching and the progress of medicine. The dedication ceremonies marked what Dr. William H. Welch of The Johns Hopkins University called “one of the most significant events in the history of medical education in America.” Robert S. Brookings, the one man most responsible for the reorganization, voiced the hope that “our efforts will contribute, in some measure, to raising the standard of medical education in the West, and that we will add, through research activities, our fair quota to the sum of the world’s knowledge of medicine.” These prophetic words have been realized.

In the ensuing years, the Medical Center has continued to grow, and now its facilities are among the best in the world. With the increase in size of the physical plant there has come a substantial increase in the number of the faculty; the expansion has been made without compromise to the standards that marked the early development of the Medical Center. As a result, significant achievements in both research and clinical areas have been steadily recorded.

Statistics

Washington University Medical Center is one of the nation’s biggest academic medical centers and among the largest employers in the St. Louis metropolitan area.

2017-2018 By the Numbers (as of Fall 2017)

Total Students: 1,409
• MD, MD/PhD, MA/MD: 629
• Applied Health Behavior: 19
• Audiology and Communication Sciences: 67
• Clinical Investigation: 99
• Genetic Epidemiology or Biostatistics: 18
• Occupational Therapy: 299
• Physical Therapy: 255
• Population Health Sciences: 23

Faculty: 2,263
Staff: 7,522
Total Employees: 9,785
Clinical Faculty: 1,503
Residents and Clinical Fellows: 1,187

Faculty at a Glance (2017)

Washington University School of Medicine has one of the finest faculties of any medical school in the nation. Recognized for their distinguished achievements in original research, 15 faculty members are among the fellows of the prestigious National Academy of Sciences; 29 are members of the National Academy of Medicine. Eighteen Nobel laureates have been associated with the School of Medicine.
During fiscal year 2017, 144 members of the faculty held individual and/or institutional career development awards. Some individual faculty members may hold multiple awards:

- 101 from National Institutes of Health (including direct-pay and pass-through awards)
- 1 from Agency for Healthcare Research and Quality
- 1 from Alfred P. Sloan Foundation
- 1 from Alzheimer's Disease Association
- 1 from American Academy of Neurology
- 1 from American Association of Plastic Surgeons
- 1 from American Board of Psychiatry & Neurology
- 2 from American Cancer Society
- 1 from American College of Rheumatology
- 1 from American Gastrointestinal Association
- 3 from American Heart Association
- 1 from American Society for Radiation Oncology
- 4 from American Society of Hematology
- 1 from American Thoracic Society
- 1 from American Urological Association Foundation
- 3 from Burroughs Welcome Fund
- 1 from Central Society for Clinical and Translational Research
- 1 from Crohn's & Collitis Foundation
- 1 from Cystic Fibrosis Foundation
- 2 from Damon Runyon Cancer Research Foundation
- 1 from Dermatology Foundation
- 6 from Doris Duke Charitable Foundation
- 1 from Ellison Medical Foundation
- 1 from Endocrine Fellows Foundation
- 1 from General Hospital Corporation
- 1 from Helen Hay Whitney Foundation
- 1 from Johann Jacobs Foundation
- 1 from Leukemia and Lymphoma Society
- 1 from Muscular Dystrophy Association
- 2 from National Multiple Sclerosis Society
- 1 from NephCure Foundation
- 1 from New York Stem Cell Foundation
- 1 from North American Society for Pediatric Gastroenterology, Hepatology & Nutrition
- 1 from Research to Prevent Blindness
- 1 from Rheumatology Research Foundation
- 1 from Robert Wood Johnson Foundation
- 1 from Sarcoma Alliance for Research
- 1 from Sidney Kimmel Foundation for Cancer Research
- 2 from Society for Vascular Surgery Foundation
- 1 from St. Baldrick's Foundation
- 3 from Susan G. Komen Breast Cancer Foundation
- 1 from V Foundation
- 1 from VascularCures – The Foundation for Accelerated Vascular Research

The School of Medicine has six faculty members with Method to Extend Research in Time (MERIT) status, a special recognition given to only a few NIH grantees, which provides long-term, uninterrupted financial support to investigators who have demonstrated superior achievement during previous research projects.

In 2017, the school employed 2,155 full-time, salaried faculty members in its 20 preclinical and clinical departments. The clinical departments are further strengthened by 1,413 voluntary and adjunct faculty members, a group of physicians who practice their medical specialties in St. Louis and are members of one or more of the staffs of the hospitals in the Washington University Medical Center.

**Summary of Students in the School of Medicine 2017-2018**

**Doctor of Medicine (MD) (as of October 1, 2017)**

Graduating Class Level: 101
Five-Year Research Program or equivalent: 8
Third-Year Class: 105
Second-Year Class: 96
First-Year Class: 98
Other: 13

**Doctor of Medicine and Doctor of Philosophy (MD/PhD)**

Graduating Class Level: 20
Clinical/Third-Year Class: 11
Seventh-Year Research: 1
Sixth-Year Research: 4
Fifth-Year Research: 15
Fourth-Year Research: 24
Third-Year Research: 18
Second-Year Research: 24
First-Year Research: 18
Second-Year Class: 29
First-Year Class: 26

**Doctor of Medicine and Master of Arts (MD/MA)**

Second-Year Class or Higher: 4

**Doctor of Medicine and Master of Population Health Sciences (MD/MPHS)**

Second-Year Class or Higher: 12
Doctor of Medicine and Master of Science in Clinical Investigation (MD/MSCI)
Second-Year Class or Higher: 1

Doctor of Physical Therapy
Third-Year Class: 81
Second-Year Class: 86
First-Year Class: 88

Doctor of Occupational Therapy
Affiliation-Year: 22
Third-Year Class: 19
Second-Year Class: 34
First-Year Class: 42

Doctor of Audiology
Fourth-Year Class: 15
Third-Year Class: 12
Second-Year Class: 12
First-Year Class: 15

Master of Science in Occupational Therapy
Affiliation-Year: 73
Second-Year Class: 51
First-Year Class: 58

Master of Science in Population Health Sciences
Second-Year Class: 17
First-Year Class: 6

Master of Science in Genetic Epidemiology
Master/Certificate/SNCD: 3

Master of Science in Biostatistics
Second-Year Class: 15
First-Year Class: 10

Master of Science in Deaf Education
Second-Year Class: 8
First-Year Class: 5

Master of Science in Clinical Investigation
Fourth-Year Class: 2
Third-Year Class: 5
Second-Year Class: 9
First-Year Class: 23
Certificate: 6
SNCD (students non-candidates for degree): 54

Master of Science in Applied Health Behavior Research
Second-Year Class: 11
First-Year Class: 5

Certificate: 3
SNCD (students non-candidates for degree): 0

Medical School Total: 1,409
(629 MD of all types; 780 in Allied Health Programs)

Student Body
The School of Medicine attracts a student body of exceptional quality. The student body of the School of Medicine numbers approximately 600+ medical students. Programs also are conducted for 700+ students who are pursuing graduate degrees in applied health behavior research, audiology and communication sciences, clinical investigation, occupational therapy, physical therapy, population health sciences, biostatistics, or genetic epidemiology. The Division of Biology and Biomedical Sciences has extensive graduate training programs for more than 500+ students seeking the Doctor of Philosophy degree in areas of Biochemistry; Computational and Systems Biology; Developmental, Regenerative and Stem Cell Biology; Evolution Ecology and Population Biology; Human and Statistical Genetics; Immunology; Molecular Biophysics; Molecular Cell Biology; Biochemistry; Molecular Genetics and Genomics; Molecular Microbiology and Microbial Pathogenesis; Neurosciences; and Plant Biology.

The MD Program
The 2017 first-year class consisted of 124 students selected from a pool of 5,032 applicants. The school is a national institution with 31 home states and 6 countries represented in the current enrollment.

In the academic year 2017-18, the school planned to confer the MD degree upon 124 individuals. Graduating students who participated in the 2017 National Resident Matching Program matched in programs recognized for high quality and selectivity.

Research
Research Activities
Grants and contracts totaling more than $548.7 million supported faculty research efforts at the School of Medicine during the fiscal year ending June 30, 2017. Substantial additional support was provided directly to faculty investigators by the Howard Hughes Medical Institute. Gifts and grants from private sources, including alumni, individuals, foundations, corporations and other organizations, totaled $133 million.

During the Washington University fiscal year ending June 30, 2017, the School of Medicine received $373.9 million from the National Institutes of Health. This amount includes direct-pay and pass-through awards.

The many firsts at the School of Medicine include:
- Served as a major contributor of genome sequence data to the Human Genome Project, providing the foundation for personalized medicine.
- Developed screening tests used worldwide to diagnose Alzheimer's disease.
- Created the first positron emission tomography (PET) scanner, a device that images the brain at work.
- Helped pioneer the use of insulin to treat diabetes.
- Developed a genetic test that detects whether an individual will develop a form of thyroid cancer and would benefit from thyroid removal — the first surgical prevention of cancer based on genetic test results.
- Published the first evidence linking smoking and lung cancer.
- Proposed the now-common practice of taking aspirin to help prevent heart attacks.
- Performed the world's first nerve transplant using nerve tissue from a cadaver donor.
- Developed a blood test that quickly and safely identifies whether a patient needs invasive treatment for a heart attack.
- Decoded the entire genome of a cancer patient and used the results to alter the course of treatment, which put the cancer into remission.
- Demonstrated that severely malnourished children given antibiotics along with a therapeutic peanut butter-based food are far more likely to recover and survive than children who only receive the therapeutic food.

**Ongoing research includes:**

- Participating in a national network to determine new ways to prevent preterm birth.
- Developing new ways to diagnose and treat stroke as part of a national network of state-of-the-art stroke treatment centers.
- Making groundbreaking contributions to decoding the genetics of cancer and developing personalized treatments.
- Leading an international research collaboration to study inherited forms of Alzheimer's disease and one of the first clinical trials to evaluate whether the disease can be prevented before memory loss and dementia develop.
- Pioneering minimally invasive surgical treatments for heart arrhythmias and heart valve replacement.
- Participating in the National Children's Study, the largest U.S. study of child and human health ever conducted.
- Seeking new ways to diagnose and treat stroke as part of a national network of state-of-the-art stroke treatment centers.
- Developing and using nanoparticles for molecular imaging and targeted drug delivery for cancer and heart, lung and vascular diseases.

- Mapping the major circuits in the human brain to understand normal brain function and connectivity errors involved in alcoholism, autism and schizophrenia.
- Exploring the links that connect obesity and malnutrition to the community of microbes that live in the gut.
- Searching for clues in the brain and spinal cord to help physicians diagnose Alzheimer's disease before symptoms develop.
- Leading research, teaching and community engagement to improve population health through Washington University's Institute for Public Health.
- Investigating changes to the brain in soldiers exposed to roadside blasts and athletes who have suffered repeated concussions to understand their long-term mental and physical consequences.
- Exploring the genetic influences at play in alcohol, smoking and drug addiction.
- Leading research to improve care for heart failure and cardiovascular disease, including clinical trials to evaluate mechanical assist devices and studies to look at the link between diabetes and aggressive heart disease.

**BioMed 21**

Launched in 2003, BioMed 21 creates a multidisciplinary and translational-research imperative for basic scientists and clinician-researchers from many medical disciplines. BioMed 21 reorganizes the life sciences at Washington University to address the biggest questions about disease: their origins, how they affect us and how we can cure them. Its goal is to reshape the university culture to rapidly convert the knowledge of the genetic blueprint of human beings into effective, individualized treatments.

To successfully make those discoveries and develop those therapies, BioMed 21 advances on many fronts:

- It aims to collect and dedicate resources, including NIH support and gifts from friends and supporters. Recent grants include:
  - $53 million grant to enhance clinical and translational research
  - $42 million in three grants for neuroscience research
  - $32 million in three grants for microbiome research
  - $183 million in four grants for genomics research

It defines new spaces to house promising research and educational programs, including:

- 240,000 square feet of new research space in the new BJC Institute of Health at Washington University School of Medicine in the center of the medical campus
- the Farrell Learning and Teaching Center, an important teaching component of BioMed 21
In addition to the Center for Genome Sciences & Systems Biology, it establishes six Interdisciplinary Research Centers (IRCs) housed in the BJC Institute of Health at Washington University School of Medicine. The IRCs are central in promoting scientific and educational innovations across school boundaries. IRCs have the primary goal of promoting innovative interdisciplinary, interdepartmental research and education in the biological and medical sciences. The mission of the IRCs is to assemble talented faculty and students to address key and emerging scientific problems, and to understand fundamental biological processes with broad implications for human health.

- The BRIGHT Institute (Bridging Research with Imaging, Genomics and High-Throughput)
- Center for the Investigation of Membrane Excitability Disorders — The EXCITE Center
- Center for Study of Itch (CSI)
- Center for Women's Infectious Disease Research (cWIDR)
- Diabetic Cardiovascular Disease Center (DCDC)
- Hope Center Program on Protein Aggregation and Neurodegeneration (HPAN)

Research Training

The School of Medicine offers many degree programs focused on research training. Please visit the Departments & Programs (http://bulletin.wustl.edu/medicine/departments) section of this Bulletin for more information.

Medical Student Research

Research is a key component of the academic program at Washington University School of Medicine (WUSM). WUSM is an internationally recognized institution where an outstanding faculty directs compassionate patient care and world-class research. Although the medical students come to WUSM for the superb clinical training the school offers, approximately 95 percent of the students also conduct research during their time here. Research provides medical students with the opportunity to engage in scientific inquiry.

The vast size and broad scope of the research activities at WUSM provide many opportunities for medical students to pursue any type of modern medical research. Our academic research programs are as follows: First-year medical students conduct part-time research during the school year with a maximum of 10 hours/week; after first-year, medical students conduct full-time research during the summer and receive a modest stipend for living expenses; second- and third-year medical students conduct part-time research during the school year with a maximum of 10 hours/week; fourth-year medical students conduct full-time research for 6-12 weeks during the school year and receive credit. Medical students can also conduct full-time research in one of the yearlong research programs (YRP) during their medical school years. The YRP includes: the Master’s Degree Program for Medical Students (MA/MD), the Master of Science in Clinical Investigation (MSCI), the One-Year Research without Degree (MD5), the Master of Population Health Sciences (MPHS), and the Master of Public Health (MPH). The academic research programs prepare medical students for careers in academic medicine.

Fellowships in basic science or clinical areas will be awarded each year to selected students who undertake research projects under the direction of faculty members. Research allows students to discover firsthand the problems and rewards of obtaining and assessing new information, thus adding another dimension to their experience as investigators.

Most students take the opportunity for research during the summer after their first year of classes. All research must be conducted at the School of Medicine. Students will be awarded a fellowship for the 2.5-month program.

Inquiries should be made to:

Koong-Nah Chung, PhD
Associate Dean for Medical Student Research
Director of the Office of Medical Student Research
Instructor of Cell Biology and Physiology
Washington University School of Medicine
Email (chungk@wustl.edu)

Roz Robinson
Project Manager/Research Administrator
Email (robinsonrb@wustl.edu)

Pharmacy Student Research Training Program

A key academic institution in our biomedical and clinical health center environment is the St. Louis College of Pharmacy. It is one of the premier institutions in the country for the teaching and training of pharmacists. The college’s extensive pharmaceutical sciences curriculum has generated interest by a number of their students in laboratory biomedical research. Students beyond their fourth year at St. Louis College of Pharmacy who demonstrate interest in science and research, and are recommended by the college faculty, will have an opportunity to complete 10- to 14-week fellowships in any of the laboratories at the School of Medicine. Students can, with consent of their advisers at the College of Pharmacy and the laboratory principal investigator, extend their stay. This joint research collaboration should encourage those students in the program to pursue
graduate degrees in the Division of Biomedical Sciences at the School of Medicine.

**Student Life**

Students at Washington University School of Medicine meet the highest academic standards and also possess many talents outside of their studies. With full support and encouragement from the School of Medicine, its students initiate and run a number of student organizations; their missions run the gamut from serving the community to professional development to pursuing personal interests in the arts. Students also participate in intramural sports and fully enjoy all that the city of St. Louis has to offer.

**Student Wellness**

Student overall health and wellness is of paramount importance to us. The Office of Student Affairs and the Washington University School of Medicine provide a number of services and opportunities to help students maintain wellness in all aspects of their lives. The Student Support Services (SSS) group is a student-led organization charged with carrying out an ongoing focus on promoting these services and opportunities, as well as creating their own. Opportunities span all facets of wellness (mental, physical, emotional, spiritual, etc.) and include weekly yoga, weekly mindfulness meditations, mental health panels, and more. Each incoming class selects a student representative (OSR) that serves as their longitudinal wellness liaison. In the spring of each academic year, a Wellness Week is held to engage students in wellness activities of all sorts.

Visit the Office of Medical Student Affairs for more information about maintaining wellness (https://mdstudentaffairs.wustl.edu/services/wellness-support).

**Student Groups**

Students at Washington University School of Medicine are active participants in medical student organizations on the local, state and national levels. The American Medical Student Association (AMSA), the Student National Medical Association (SNMA), the American Medical Women’s Association (AMWA), the Asian-Pacific American Medical Students Association (APAMSA), the Medical Student Section of the American Medical Association (AMA-MSS), the Missouri State Medical Association (MSMA), the Organization of Student Representatives (OSR) in the Association of American Medical Colleges (AAMC) and the Student Organized Community Clinic (SOCC) provide forums for addressing the educational, social and political concerns of medical students. The School of Medicine supports student participation in these national organizations and provides partial funding for travel and other expenses on an annual basis. The Medical Student Government (MSG) represents student interests, supports social and educational activities, and expands the perspectives of the future graduates of the medical school.

Visit the Office of Medical Student Affairs for a complete list of student groups (https://mdstudentaffairs.wustl.edu/student-groups).

**Academic Societies**

To foster communication between students and faculty, three academic societies — The Joseph Erlanger and Evarts Graham Society, The Carl and Gerty Cori Society, and The Oliver Lowry and Carl Moore Society — meet independently throughout the academic year to enjoy a social hour, dinner and conversation. The societies promote a collegial environment for the medical school’s diverse faculty and student body. Medball, held in March of each year, is hosted in part by the academic societies and provides a formal social evening with medical faculty and medical students.

For a complete list of academic societies (https://mdstudentaffairs.wustl.edu/academic-support/academic-societies), visit the Office of Medical Student Affairs.

**Major Events**

Many events mark a student’s passage through medical school. Browse the Calendar (https://mdstudentaffairs.wustl.edu/events) to learn more.

**Community Service Experience**

Participation in a host of community service projects nurtures students’ altruistic nature and provides an alternative educational experience. University-sponsored, student-run, community-based service activities include the Perinatal Project, which provides information concerning well-baby care and prenatal care to women from lower socioeconomic groups.

Students Teaching AIDS to Students (STATS) allows trained medical students to provide sixth and seventh graders with information about AIDS. The combined efforts of medical students, faculty, middle school teachers, parents and speakers with AIDS have made STATS a very successful program. The Geriatrics Outreach Program helps prepare students for the challenges and rewards of working with older patients.

Pediatric Outreach Program (POP) matches children in the St. Louis area who are suffering from chronic illnesses and the siblings of these children with big brothers and big sisters from Washington University School of Medicine. Community CPR trains medical students to become instructors in CPR for the medical school curriculum and in the community of St. Louis.

The Mental Health Outreach Program (MHOP) works to increase the awareness of mental health issues among medical students and the general public. The Family Medicine Interest Group works with the local community by providing health screenings and nutritional classes. SPOTS (Sun Protection Outreach Teaching by Students) is piloted to teach middle school students about the dangers of skin cancer and how to protect themselves from the sun.
A newer group, the Public Health Interest Group (PHIG), is a student organization committed to partnering in the St. Louis community to include health screenings, nutrition outreach and public policy discussions. The Smoking Cessation Project works with the American Lung Association Freedom from Smoking Program, and students are trained in counseling smoking cessation groups.

**Student Publications**

Students organize and spearhead several publications at the School of Medicine. The *Dis-Orientation Guide* is produced annually as a student-to-student guide to the curriculum and the city. *Hippocrene* is a literary magazine published once a year containing poetry, short stories, essays and photographs submitted by members of the WUSM community.

**St. Louis**

Situated at the confluence of two great North American rivers — the Mississippi and the Missouri — the St. Louis region has been a favored destination since Lewis & Clark began their historic westward "Corps of Discovery" here in 1804.

Today, the pioneers of St. Louis are the engineers, scientists, business leaders, educators, artists, and other innovative and creative professionals who are working at the forefront of a multitude of fields and endeavors. Thanks in large part to Washington University, other regional universities and key Fortune 500 corporations, St. Louis has developed into a national hub for important research and business development, especially in the fields of biotechnology and plant science.

Consistently ranked among the nation’s most affordable and best places to live and raise a family, the St. Louis region offers many opportunities to watch or participate in a wide range of sports, recreational activities and cultural events. Not far from St. Louis’ urban core are the beautiful rolling hills of the Ozark Mountain region and outdoor activities such as hiking, canoeing and spelunking in some of Missouri’s more than 6,000 caves.

**Cultural Opportunities**

New St. Louisans discover the rich cultural life here in theaters, galleries, museums and festivals. The St. Louis Symphony (https://www.slso.org), among the finest in the nation, performs at historic Powell Hall. Symphony members bring their skills to the community through teaching and chamber concerts as well. In the downtown area, the rich St. Louis traditions in jazz, blues and ragtime music are continued in a number of lounges and clubs. The Community Music School of Webster University (http://www.webster.edu/community-music-school) offers community music education to all ages, and COCA (http://www.cocastl.org) (Center of Creative Arts) is the largest multidisciplinary arts institution in the metropolitan area.

The Opera Theatre of Saint Louis (http://www.opera-stl.org) has been enormously successful, nationally and internationally, bringing English-language versions of the classics and presentation of contemporary operas to the stage. The Repertory Theatre of St. Louis (http://www.repstl.org) has an extensive annual season, which includes experimental works and traditional dramas. The Stages St. Louis Theatre Co., Kirkwood Theatre Guild (http://www.ktg-onstage.org), West End Players Guild (http://www.westendplayers.org), ACT INC (http://www.acticstl.com) and the St. Louis Black Repertory Company (http://www.theblackrep.org) enrich the dramatic offerings available in the immediate area. On campus, Edison Theatre offers the highest quality in national and international programs in theater, dance and music. For open-air summer entertainment, the Shakespeare Festival St. Louis (https://www.sfstl.com) and The Muny (http://muny.org), both in Forest Park, are prime destinations.

Broadway comes to St. Louis at the Fox Theatre (http://www.fabulousfox.com), a renovation of a 1929 example of exotic cinema temple art. Galleries sprinkled throughout the area bring current visual arts to St. Louis, while antique shops remind us of the past. The St. Louis International Film Festival takes place every fall. Supplementing the standard movie fare available throughout the metropolitan area are two cinemas close to campus, the Hi-Pointe (http://hi-pointetheatre.com) and the Tivoli, both offering excellent foreign and independent films.

When the Saint Louis Art Museum (http://slam.org) was built for the 1904 World’s Fair, much of the Washington University collection was housed in it. Ties with the Art Museum remain very close. Students in art and in business intern at the Art Museum, working in arts management and gallery organization. St. Louis also features Laumeier Sculpture Park (http://laumeiersculpturepark.org), which displays large-scale sculptures by artists of international renown.

St. Louis has two major history museums as well: the Missouri History Museum (http://www.mohistory.org) in Forest Park and the Jefferson National Expansion Memorial (https://www.nps.gov/jeff) under the Gateway Arch.

**Recreation**

For recreation, St. Louisans may use any of the numerous parks that dot the metropolitan area. In Forest Park, which lies between the two Washington University campuses, are the Art Museum, The Muny, Missouri History Museum, the Saint Louis Zoo (http://www.stlzoo.org), municipal golf courses, tennis and handball courts, a skating rink, and acres of paths, picnic areas, gardens and wooded groves. Tower Grove Park (http://www.towergrovepark.org) is in south St. Louis, and adjacent is the Missouri Botanical Garden (http://www.missouribotanicalgarden.org), world famous for its research, collections and facilities.

Farther afield, St. Louis residents find outdoor adventure in the countryside beyond the city. In the Ozark Mountains, on the rivers of Missouri, on the lakes of neighboring Illinois, variety abounds. Camping, hiking, floating, rock climbing and caving are among the many possibilities within a few hours drive of St. Louis.
Louis. For those who like to sail, there is Carlyle Lake in Illinois. And for those with rod and reel, Missouri streams are made to order.

The Washington University Athletic Complex provides outstanding resources to athletes at every level of ability. Open to all members of the university community, it includes an eight-lane, 25-meter pool, two gymnasiums, weight rooms, racquetball courts, outdoor tennis courts and a track complex. Built on the site of the 1904 Olympic Games, this facility offers recreational opportunities year-round for students, faculty and staff.

For the spectator, St. Louis is a great sports town. For more than a century, it has hosted one of the oldest traditions in baseball — the St. Louis Cardinals (https://www.mlb.com/cardinals). Dizzy Dean and the Gashouse Gang, Stan Musial, Lou Brock, Ozzie Smith and Mark McGwire are all part of Cardinal history. The current Busch Stadium opened in spring of 2006 and played host to the 2009 All-Star Game.

The St. Louis Blues hockey team moved here in 1967 and enjoys loyal fans. St. Louis also supports a number of semi-pro sports teams.

**Employment and University Ties with St. Louis**

St. Louis is a great place to work; job opportunities are varied and abundant. Many companies are distinguished for their excellent working conditions, and commuting is easier than in many other large cities.

Many major corporations are located here, as are a variety of retail, transportation and banking organizations. Among the top firms are Ameren, Boeing, Edward Jones, Emerson Electric, Enterprise Rent-a-Car and Express Scripts. Many support services have grown up around these corporations — including law, accounting, data processing, advertising, public relations and design firms, as well as photographic and audio-visual studios.

Employing more than 20,000 people, the Washington University Medical Center (WUMC) is made up of the School of Medicine (https://medicine.wustl.edu), the Alvin J. Siteman Cancer Center (http://www.siteman.wustl.edu), Barnes-Jewish Hospital (http://www.barnesjewish.org) and St. Louis Children's Hospital (http://www.stlouischildrens.org). The medical center generates an annual economic impact of nearly $4.3 billion for the St. Louis area, according to an economic model maintained by the St. Louis Regional Commerce and Growth Association.

The John M. Olin School of Business (http://www.olin.wustl.edu/Pages/default.aspx) at Washington University enjoys a rich and varied partnership with the business community. As a laboratory for internship opportunities, entrepreneurship study, and student practicums offered through Olin’s Center for Experiential Learning, St. Louis plays an integral role in the education of business students. In turn, Olin creates value for area businesses by matching top Olin talent with pivotal positions in their firms.

Similarly, the School of Law (http://law.wustl.edu) has close ties with the St. Louis legal community and, through its clinical program, offers internships in private and local government offices and in state and federal courts. In addition, the law school is fortunate in the active and interested role of the local bar associations in the development of the school’s special programs.

The George Warren Brown School of Social Work (http://brownschool.wustl.edu/Pages/Home.aspx) also is linked in many ways to the St. Louis social work community. Students find practicum assignments throughout the area, and both students and faculty do research and consult with local agencies.

A strong partnership exists between technology-based businesses and industries in St. Louis and the School of Engineering & Applied Science (http://engineering.wustl.edu). There is a network of more than 80 faculty members associated with the Department of Biomedical Engineering, representing numerous divisions of the university, including many from the School of Medicine.

In addition to their ties to local business, both the Danforth Campus and the School of Medicine at Washington University are dedicated to the support of K-12 education. Students from the medical school participate in a variety of outreach programs, including Students Teaching AIDS to Students (STATS), designed to teach awareness and responsible behavior to junior high school students; the Young Scientist Program (http://ysp.wustl.edu), an interactive learning experience that brings high school students to the medical center; and health and preventive programs on drug and sex education.

In short, Washington University enjoys a special relationship with St. Louis.

**Interesting St. Louis-Area Facts**

St. Louis has many nicknames, including the "Gateway City," "Gateway to the West," "The Mound City," "St. Louie," "River City," and "The Lou."

There are more free, world-class attractions in St. Louis than any place in the nation outside of Washington, DC.

The Saint Louis Zoo (http://stlzoo.org) was the first municipally supported zoo in the world and a pioneer in the use of open enclosures, placing animals in natural environments without bars.

Some of the world’s favorite foods were popularized and introduced to a wide audience at the 1904 World’s Fair in St. Louis. The ice cream cone, iced tea and hamburgers all became food favorites there. It is said that the fair was the first place where hot dogs met French’s mustard.
The Eads Bridge over the Mississippi River, near the present site of the Gateway Arch, was the first arched steel truss bridge in the world. When it was first proposed, it was scoffed at as impossible to build. Completed in 1874, it is still in use today.

In 1904, the first World Olympics in the United States and the Western Hemisphere was held in St. Louis at Washington University's Francis Field.

The Cathedral Basilica of Saint Louis (http://cathedralstl.org) contains the largest collection of mosaic art in the world.

In 1876, St. Louis hosted the first national political convention west of the Mississippi.

In 1927, a group of St. Louis businessmen gave financial backing to the first solo transatlantic flight from New York to Paris. The pilot was Charles Lindbergh and the plane was named "The Spirit of St. Louis."

St. Louis’ McDonnell Douglas Corporation, now Boeing, designed and built the space capsule that carried the first men into space in the 1960s.

C.L. Grigg, a soft drink salesman, introduced a drink to St. Louisans in 1929 that would eventually become known as 7-Up.