Facts and Figures
Research
Education
Patient Care
Community Partnerships

Duke University
School of Medicine
The youngest of the nation’s leading medical schools, Duke University School of Medicine is one of the nation’s premier schools for medical education, clinical care and biomedical research. Planning for the school began in 1925, when businessman James Buchanan Duke, benefactor of Duke University and The Duke Endowment, bequeathed $4 million to establish the Duke School of Medicine, the Duke School of Nursing and Duke Hospital. Less than five years after the school opened in 1930, the Association of American Medical Colleges ranked Duke in the top quarter of medical schools in the country. Now, more than 80 years later, the Duke University School of Medicine is ranked among the leading medical schools in the nation. The School of Medicine encompasses close to 100 buildings both on campus and in Durham and employs more than 2,100 regular rank faculty physicians and researchers. Twenty-eight buildings on campus are dedicated to research and education.

Dean: Nancy C. Andrews, M.D., Ph.D.
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School Web Address: medschool.duke.edu
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Clinical Science Departments
- Anesthesiology
- Community and Family Medicine
- Dermatology
- Medicine
- Neurology
- Neurosurgery
- Obstetrics and Gynecology
- Ophthalmology
- Orthopaedic Surgery
- Pathology
- Pediatrics
- Psychiatry & Behavioral Sciences
- Radiation Oncology
- Radiology
- Surgery

Basic Science Departments
- Biochemistry
- Biostatistics & Bioinformatics
- Cell Biology
- Immunology
- Molecular Genetics and Microbiology
- Neurobiology
- Pharmacology and Cancer Biology

Centers and Institutes
- Brain Imaging and Analysis Center
- Center for Genomic & Computational Biology
- Center for Human Disease Modeling
- Center for Statistical Genetics and Genomics
- Center for the Study of Aging and Human Development
- Duke Cancer Institute
- Duke Clinical Research Institute
- Duke Global Health Institute
- Duke Human Vaccine Institute
- Duke Institute for Brain Sciences
- Duke Molecular Physiology Institute
- Trent Center for Bioethics, Humanities and History of Medicine
Robert Lefkowitz, M.D., professor of medicine at Duke University School of Medicine and a Howard Hughes Medical Institute investigator, has spent his entire 40-year research career at Duke. In 2012, he was awarded the Nobel Prize in Chemistry with Brian K. Kobilka, M.D., of Stanford University School of Medicine, who was a post-doctoral fellow in Dr. Lefkowitz’s lab in the 1980s. They were recognized for their work on a class of cell surface receptors that have become the target of prescription drugs, including antihistamines, ulcer drugs and beta blockers to relieve hypertension, angina and coronary disease.
Duke has blazed trails in medicine for more than seven decades.

1936
A Duke surgeon introduces ultraviolet lamps into operating rooms to kill airborne germs that cause post-operative staph infections—dramatically reducing the number of infections and related deaths.

1950
A Duke pediatrician leads the push for drug companies to develop the child-proof safety cap for medicine bottles.

1956
Duke becomes first to use systemic hypothermia during cardiac surgery. This technique of cooling patients to minimize tissue damage during lengthy surgical procedures is now standard practice worldwide.

1968
Dr. Irwin Fridovich and graduate student Joe McCord discover the enzyme superoxide dismutase, which protects all living things against the toxicity of oxygen.

1981
Duke biophysicist Jane Richardson’s ribbon diagram, a method of representing the 3D structure of proteins, is first published.

1982
Pediatric immunologist Dr. Rebecca Buckley uses bone marrow transplantation to cure severe combined immunodeficiency, also known as “bubble boy disease.”

1985
Duke becomes one of two hospitals to conduct the first human clinical trials of AZT, the first drug to substantially improve quality of life for AIDS patients.

1988
Pediatric immunologist Dr. Louise Markert uses thymus transplantation to cure once-fatal complete DiGeorge Syndrome.

1990
Duke researchers discover a gene that increases people’s risk of developing the most common form of Alzheimer’s disease, showing for the first time that it can be inherited.

1993
Duke Comprehensive Cancer Center (now Duke Cancer Institute) develops the nation’s first outpatient bone marrow transplantation program.

1994
Pediatric immunologist Dr. Louise Markert uses thymus transplantation to cure once-fatal complete DiGeorge Syndrome.

1998
Duke researchers are the first to use magnetic resonance spectroscopy to track levels of n-acetylaspartate (N-AA) as a marker for Alzheimer’s disease, proving that such a marker exists and that it can be detected via MRS.

1999
Researchers at Duke and Vanderbilt universities discover the first major gene known to determine an individual’s risk for developing age-related macular degeneration, the leading cause of visual impairment and legal blindness in the elderly.

2003
Duke researchers demonstrate for the first time that magnetic resonance technology could be used to observe the effects of a medication on brain structures, an important first step toward improving drug research for treating Alzheimer’s disease.

2005
The FDA approves Myozyme, the first lifesaving treatment for children with Pompe disease. The treatment was discovered and developed at Duke.

2006
Hi Yan, M.D., Ph.D., and a team of scientists from Duke and Johns Hopkins universities identify mutations in a gene that makes cells immortal and appear to play a pivotal role in three of the most common types of brain tumors, as well as cancers of the liver, tongue and urinary tract.
2012
Dr. Bart Haynes leads the world’s largest HIV vaccine trial, which provides important clues about immune system responses that could play a role in protecting people from HIV infection.

Robert Lefkowitz, M.D., is awarded the Nobel Prize for Chemistry with Brian Kobilka, M.D., for their work on G-protein-coupled receptors, which allow cells to sense light, flavour, odor and receive signals from hormones and neurotransmitters.

2014
A mind-controlled robotic exoskeleton developed by Duke researcher Miguel Nicolelis, M.D., Ph.D., is used by a paraplegic man to make a kick at the Opening Ceremonies of the World Cup.

2013
Physician-scientist Dr. Jeffery Lawson and Dr. Laura Niklason develop a bioengineered blood vessel, which Lawson grafts into an artery in a Duke patient’s arm, the first in-human procedure of its kind in the United States.

Duke Receives $47 Million Award From NIH to support translational research.

2015
Duke researchers receive $15 million to support an innovative research program that explores the use of umbilical cord blood cells to treat autism, stroke, cerebral palsy and related brain disorders.

Research

The School of Medicine includes the research efforts of basic and clinical faculty members in 34 departments, centers and institutes. Their combined efforts make Duke one of the largest biomedical research enterprises in the country, with more than $650 million in sponsored research expenditures annually.

During Fiscal Year 2015, nearly 18,000 patients participated in 2,104 active clinical research studies at Duke. The world’s largest academic clinical research organization, the Duke Clinical Research Institute, has conducted studies at more than 37,000 sites in 65 countries, enrolling more than 1.2 million patients and generating more than 10,000 publications in peer-reviewed journals.
Students

- **MD Students**: 454
- **Health Profession Students**: 583
  (Physician Assistant, Pathologists’ Assistant, Clinical Leadership, Clinical Research, Master of Biostatistics, Master of Biomedical Sciences, Master of Management of Clinical Informatics, Doctor of Physical Therapy, Ophthalmic Tech)
- **PhD Students in biomedical programs**: 592
- **Graduate Medical Education**: 1,006
  (Residents and Fellows)
- **MD Students at Duke-NUS Graduate Medical School (2013-2014)**: 266

In 2005, Duke and the National University of Singapore (NUS) signed a formal agreement to partner in establishing a new graduate-entry medical school in Singapore based on the Duke curriculum model. The Duke-NUS Graduate Medical School Singapore (Duke-NUS) is renowned for its pioneering approach to team-based learning and its signature research programs. In 2010, the school launched a PhD program in Integrated Biology and Medicine. Duke-NUS graduated its first class in 2011 with joint MD degrees from Duke and NUS and has graduated five classes since. Duke-NUS and SingHealth (Singapore’s largest group of healthcare institutions) have established a strategic partnership in academic medicine, tapping on and combining the collective strengths of SingHealth’s clinical expertise and Duke-NUS’ biomedical sciences research and medical education capabilities.

**Health Education Programs**

The Doctor of Medicine (M.D.) Program  
Medical Scientist Training Program  
Doctor of Physical Therapy Program  
Physician Assistant Program  
Clinical Leadership Program  
Clinical Research Training Program  
Master of Biomedical Sciences  
Master of Biostatistics  
Master of Management in Clinical Informatics  
Medical Physics  
Pathologists’ Assistant Program

**PhD Programs**

Application to all biomedical graduate programs is through the Duke Graduate School. These programs are administered in the School of Medicine by the Office of Biomedical Graduate Education.

- Biochemistry  
- Biostatistics & Bioinformatics  
- Cell and Molecular Biology  
- Cell Biology  
- Cognitive Neuroscience  
- Computational Biology and Bioinformatics  
- Developmental & Stem Cell Biology  
- Immunology  
- Integrated Toxicology & Environmental Health  
- Medical Physics  
- Molecular Cancer Biology  
- Molecular Genetics & Microbiology  
- Neurobiology  
- Pathology  
- Pharmacology  
- Structural Biology & Biophysics  
- University Program in Genetics & Genomics

**2015 Entering Class (MD Program)**

- AMCAS Applications Received: 7,013
- Students: 115
- Mean GPA: 3.80/4.0
- Mean MCAT Scores: 36/45
- Men: 60
- Women: 55
- Under-Represented Minority Students: 32
- States Represented: 54
- Undergraduate Institutions: 20%
The Duke University School of Medicine’s unique curriculum allows medical students to study the core basic sciences for one year instead of two, giving them the opportunity to devote their entire third year to a scholarly research project. Students care for patients during their second year core rotations, a full year earlier than their peers at other medical schools.

The Mary Duke Biddle Trent Semans Center for Health Education opened in January 2013 as the first new home dedicated to medical education since the school opened in 1930. This state-of-the-art building was paid for almost entirely by philanthropy. The building consists of six floors and includes simulation labs and three fully equipped operating/ICU rooms and twelve clinical exam rooms.

The School of Medicine offers a unique 4-year Primary Care Leadership Track to train leaders who can enter residency prepared to engage with communities and practices to help improve health outcomes. The track builds on the longstanding partnership between Duke and the Durham community so students can better understand causes of health disparities, create a strong research focus on community engagement, and learn how to redesign clinical programs to better serve the patient needs.

In 2015, the School of Medicine launched the Master of Biomedical Sciences program. During this new, one-year program, students learn the language of human medicine as well as the context of clinical care. The goal of the program is to enhance the scientific and professional preparation of students aspiring to a career in the health professions or in a related field requiring graduate level biomedical sciences.

Approximately 17 percent of Duke medical students are enrolled in the Medical Scientist Training Program, which culminates in both a medical degree (MD) and a doctoral degree (PhD). The majority of MSTP students pursue degrees in biomedical science and engineering although students have earned their PhD degrees in the social sciences as well. Of the 46 such programs funded by the National Institutes of Health (NIH), the Duke MSTP was the fourth program established in 1966.
Figures are for Duke University Health System (including Duke University Hospital, Duke University Medical Center, Duke Regional Hospital, Duke Raleigh Hospital, Duke HomeCare & Hospice, Duke University Affiliated Physicians) for fiscal year 2015 unless otherwise indicated.

<table>
<thead>
<tr>
<th></th>
<th>Duke University Hospital</th>
<th>Duke Raleigh Hospital</th>
<th>Duke Regional Hospital &amp; Davis Ambulatory Surgical Center</th>
<th>Duke Home Care and Hospice</th>
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<tbody>
<tr>
<td>Inpatient Admissions</td>
<td>40,326</td>
<td>8,204</td>
<td>16,060</td>
<td>573</td>
</tr>
<tr>
<td>Outpatient Visits</td>
<td>1,063,837</td>
<td>172,839</td>
<td>114,108</td>
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<tr>
<td>Surgical Procedures, including Endoscopy</td>
<td>52,952</td>
<td>16,978</td>
<td>21,078</td>
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</table>
- Employees (full-time): 16,441 within Duke University Health System plus 1,159 in the Private Diagnostic Clinic (FY15)
- Duke University Hospital
- Duke Regional Hospital
- Duke Raleigh Hospital
- Duke HomeCare & Hospice
- Duke Primary Care
- Duke Health & Wellness
- Private Diagnostic Clinic
- Affiliated Programs – Duke Medicine has established clinical and research affiliations with community hospitals to benefit patients throughout the Southeast.
Community Partnerships

As a world-class academic and health care system, Duke Medicine strives to transform medicine and health locally and globally through innovative scientific research, rapid translation of breakthrough discoveries, educating future clinical and scientific leaders, advocating and practicing evidence-based medicine to improve community health, and leading efforts to eliminate health inequalities. In fiscal year 2014, Duke University Health System provided $448 million in charity care and other community benefit investments.

Duke works with many community partners to improve health care locally. Examples of outreach programs include:

- **Primary Care Wellness Centers within four Durham public schools**, serving mostly low-income youngsters at George Watts Elementary, Glenn Elementary, EK Powe Elementary, and Southern High schools. Clinics operate during the school year and provide medical and mental health services. The elementary school clinics also provide bilingual mental health services. All four Wellness Centers offer medical coverage during weekends and school holidays.

- **Just for Us**, providing in-home primary care, case management, nutrition counseling, and occupational therapy services for medically complex elderly patients and adults with disabilities based in 13 public or subsidized senior housing sites operated in conjunction with Lincoln Community Health Center.

- **Local Access to Coordinated Healthcare (LATCH)**, providing bilingual in-home health education on chronic disease, as well as patient support and advocacy, for uninsured Durham residents; since 2002, more than 18,000 uninsured residents have enrolled in LATCH.

- **Duke AHEC (Areas Health Education Center) Scholars Program** for 9th and 10th grade students attending the City of Medicine Academy in Durham, providing students with enrichment education and activities to promote health careers. The goal of this program is to expose students to a myriad of health careers and to engage them in hands-on learning. Duke University School of Medicine and Health System faculty, staff and students lend their expertise to projects and classroom lectures.
Global Outreach

Duke’s Global Health Institute (DGHI) is a university-wide effort to address health disparities worldwide through multidisciplinary research, education, policy engagement, and service. It is one of many institutes that comprise the School of Medicine.

Research
- Almost half of the DGHI faculty members are from the School of Medicine.
- DGHI faculty members are leading more than 125 funded global health research projects in more than 40 countries.
- The results of up to a third of these projects have direct implications for global health policy or practice.
- DGHI faculty members have published more than 320 articles in leading academic journals.

Priority Locations
DGHI’s education, research, and capacity building initiatives are built on a strong network of partnerships with institutions around the world in Priority Partnership Locations. These partnerships provide opportunities for faculty and students and are based on bidirectional, mutually-beneficial relationships. DGHI has invested in capacity-building, research, and education program development in a number of strategically-important locations:

- Beijing, China
- Kunshan, China
- Shanghai, China
- Leogane, Haiti
- Delhi, India
- Eldoret, Kenya
- Singapore
- Cape Town, South Africa
- Galle, Sri Lanka
- Moshi, Tanzania
- Kampala, Uganda

Student Field Projects
- Total number of student project placements in 2015: 123 student projects in 29 countries

DGHI’s Primary Goals Are:
1. Become the worldwide leader in interdisciplinary global health education
2. Catalyze and conduct innovative research that responds to the changing global burden of disease and influences policy
3. Create a robust network of international partners to exchange global health knowledge and skills
Core Values of Duke University School of Medicine

- Excellence in education, research and patient care
- Respect for and inclusion of people from all backgrounds
- Commitment to service, solving real world problems
- Sense of urgency in transforming discoveries into improved human health