



# Yale School of Medicine

is one of the world's leading centers for biomedical research, advanced clinical care, and medical education.

It ranks fourth among medical schools receiving funds from the National Institutes of Health (NIH) and tenth in NIH dollars per faculty member. More than 1,700 Yale physicians provide care to patients from across the region and around the world. The Yale System of Medical Education, with its emphasis on critical thinking and independent student research, has produced leaders throughout academic medicine.

The sixth-oldest medical school in the United States, it was chartered by the Connecticut General Assembly in 1810 as the Medical Institution of Yale College, located first on Grove Street, then at 150 York Street. Since 1924, it has occupied Sterling Hall of Medicine at 333 Cedar Street and surrounding buildings. It has awarded 9,599 medical degrees since 1814. There are 5,744 living alumni with MD degrees, 5,981 with MPH degrees, 1,613 alumni of the Physician Associate Program with the PA-C certificate or MMSc degree, and 223 alumni of the Physician Assistant Online Program.

## Education

The School of Medicine educates future leaders in medicine and biomedical science. Since 1839, medical students have written a thesis based on original research, reflecting that the scientific process of investigation, observation, interpretation of data, and critical evaluation of literature are fundamental to the practice of medicine.

Many medical students take a tuition-free fifth year to pursue additional study, conducting in-depth research or exploring clinical electives and subinternships. A significant number are awarded fifth-year research fellowships and earn the MHS degree.

Each year, approximately 20 students enroll in the school's MD-PhD Program, one of the original Medical Scientist Training Programs established and funded by the NIH. Graduate students in the combined program in the Biomedical and Biological Sciences earn a PhD degree through the Faculty of Arts and Sciences. YSM residents, fellows, and faculty, as well as individuals from other institutions, can earn a two-year Master of Health Science degree. The School of Medicine also offers joint degree programs with other professional schools including Public Health, Law, Management, Engineering, and Divinity.

YSM's campus-based Physician Associate (PA) Program, one of the oldest PA programs in the country, trains students to become compassionate, high-quality, patient-centered PAs. Serving the same mission, the Yale Physician Assistant Online Program will graduate its final class in 2026.

<b>Students (total)</b>	<b>1,840</b>
<b>By Degree Program</b>	
MD Program <sup>1</sup>	
MD	371
MD/PhD	153
MD/MHS	15
MD/MBA	9
MD/MPH	1
MD/JD	0
MMSc (PA-C)	
Physician Associate Program	110
Physician Assistant Online Program	140
MPH	584
PhD	457
<b>MD Program Details</b>	
<b>CLASS OF 2027 PROFILE</b>	
Applicants	5,495
Class size	104
Female students	50
Male students	53
Declined to specify	1
Acceptance rate	5.5%
URiM <sup>2</sup>	35
Median cumulative GPA	3.92
MCAT median	522
MCAT median of sections	130
Faculty-to-student ratio	4.2 to 1
<b>Finances</b>	
2023–24 tuition	\$70,184
2023 median debt for those with debt	\$113,254
<b>Medical Library</b>	
Volumes	461,583
Journals	22,200
Online books, biomedical Databases	55,000+
	115



### THE YALE SYSTEM

The MD Program follows a unique educational philosophy—the Yale System of Medical Education—established in the 1920s. No course grades or class rankings are given in the first two years, examinations are limited, and students are expected to engage in independent investigation.

## Basic and Translational Research

Research at the medical school covers a broad spectrum, from fundamental studies in the life sciences, including cell biology, genetics, immunobiology, microbial pathogenesis, neuroscience, pharmacology, physiology, biophysics and biochemistry, to translational and clinical studies aimed at improving the diagnosis and treatment of human diseases. Important research collaborations bring together scientists on the medical campus, Science Hill, and the West Campus. Funding for research at YSM has increased from \$836.2 million in 2022 to \$955.9 million in 2023.

In 2020, YSM established the Office for Health Equity Research to address health disparities and inequities in underserved populations by coordinating and facilitating health equity research and partnerships at the school, across Yale University, and beyond.

In 2022, the school advanced its commitment to data science by creating a section for Biomedical Informatics and Data Science as a hub for biomedical collaboration. Soon after, in 2023, a new biorepository service was formed to store, retrieve, and share biological samples such as blood, solid tissues, DNA, RNA, and proteins, for current and future research studies. Also in 2023, Yale became one of three partners to form the biomedical research hub, Chan Zuckerberg Biohub New York. The hub's mission is to bioengineer immune cells to detect the earliest stages of diseases, potentially before they are detectable with current approaches or before symptoms appear.

<b>Academic Departments</b>	<b>34</b>
Basic science	10
Clinical	18
Public Health	6
<b>Programs &amp; Centers</b>	<b>4</b>
<b>Active Patents</b>	<b>1,261</b>
U.S.	391
International	870
<b>Yale-Founded Biotech Companies</b>	<b>154</b>
<b>Faculty</b>	<b>5,419</b>
Teaching (ladder)	2,394
Research	760
Lecturer/Instructor	344
Visiting	81
Emeritus/Retired	189
Voluntary/Adjunct	1,651
<b>Postgraduate Fellows &amp; Associates</b>	<b>1,853</b>
<b>Memberships &amp; Awards<sup>3</sup></b>	
Association of American Physicians	43
Breakthrough Prize	3
Fields Medal	1
HHMI Investigators	7
Kavli Prize	2
Lasker Awards	4
MacArthur Genius Grant	6
National Academy of Engineering	8
National Academy of Medicine	60
National Academy of Sciences	67
Nobel Prize	3
Wolf Prize	3
<b>Faculty with Endowed Professorships</b>	<b>145</b>
<b>Research Activity</b>	
Number of awards	3,258
Dollar total	\$955.9 million
<b>NIH</b>	
Awards	\$571.5 million
Rank, total grant dollars among medical schools <sup>4</sup>	4th
Rank, grants per faculty member <sup>5</sup>	10th
Centers and program grants	16
<b>Lab Space</b> (net assignable sq. ft.)	
Medical School	785,228



### CORE RESEARCH RESOURCES

- State-of-the-art tools for genomics and proteomics, including whole-genome sequencing and mass spectrometry.
- High-resolution imaging and image analysis at every scale, including cryoelectron microscopy, cryoelectron tomography, and the only focused ion beam-scanning electron microscope in the region.
- High-throughput screening, including RNAi and chemical screens.
- Construction and analysis of animal models of disease.

## Clinical Investigation

Clinical investigation at Yale bridges the gap between the basic and translational sciences and the practice of medicine. Research is focused on the factors that affect health and illness in populations, the evaluation of therapeutic interventions, and the assessment of health outcomes based on analysis of large data sets.

The School of Medicine sponsors a wide range of clinical trials, with more than 2,172 active trials in 2023, and over 24,000 “Help Us Discover” unique volunteers enrolled (see yalestudies.org), and 35,457 active subjects. The school offers superb training for clinical investigators in a number of settings, including the Yale Center for Clinical Investigation (YCCI), the National Clinician Scholars Program at Yale (the evolution of the Robert Wood Johnson Foundation Clinical Scholars Program), the Yale School of Public Health, and the Investigative Medicine Program, along with discipline-specific training initiatives in selected departments.

YCCI facilitates the training of clinical and translational scientists and provides infrastructure for innovative and collaborative research directed at improving patient care. It funds up to 20 YCCI Scholars yearly and supports investigators in the areas of biostatistics, bioinformatics, study design, core technologies, regulatory review, patient recruitment, and community-based research.

**The National Clinician Scholars Program at Yale** was established in 2016 to prepare future clinician leaders to improve health and health care. Graduates of the two-year interprofessional fellowship earn a master of health sciences (MHS) degree.

**Yale School of Public Health** offers training and conducts research in biostatistics, chronic disease epidemiology, environmental health sciences, epidemiology of microbial diseases, and health policy and administration.

**The Investigative Medicine Program** awards a PhD degree to holders of MD degrees who pursue training in either laboratory-based or clinically based human investigation.

**By the Numbers**

RWJ Scholars since 1974	187
NCSP Scholars since 2016	58
PhDs awarded by Investigative Medicine Program since 2003	63
YCCI Scholars trained since 2006	215



### CLINICAL TRIALS

A clinical trial for an “artificial pancreas” conducted by the Yale Center for Clinical Investigation (YCCI) focused on kids under the age of 12. Throughout the trial they enjoyed a variety of activities around New Haven—including the Eli Whitney Museum, shown here.



## Patient Care

More than 1,700 Yale physicians provide primary and specialty care for patients through the school's faculty practice, Yale Medicine. The practice delivers advanced care in more than 100 specialties and subspecialties, and has centers of excellence in such fields as cancer, cardiac care, minimally invasive surgery, and organ transplantation. Yale physicians have made many historical contributions, including the first use of cancer chemotherapy, the first artificial heart pump, and the first insulin infusion pump for diabetes. Today they use such groundbreaking advances as DNA sequencing technology to diagnose suspected genetic diseases and the first therapy to prevent Type I Diabetes Mellitus (T1DM). Yale Medicine is a major referral center for Connecticut and New England and treats patients throughout the world.

Patient Care Overview	
Income	\$1.39 billion
Yale Medicine	
Patient encounters	3.0 million
Physicians	
Full-time	1,597
Part-time	175
Advanced Practice Providers	791
Clinical fellows	430
Medical residents	923
Yale New Haven Hospital <sup>6</sup>	
Patient discharges	85,358
Emergency visits <sup>7</sup>	154,352
Outpatient encounters (including ED)	1,726,827
Total licensed beds	1,541

## Clinical Affiliations

An affiliation agreement between the medical school and Grace-New Haven Community Hospital in 1965 created Yale New Haven Hospital (YNHH), which expanded in 1993 with the opening of the Children's Hospital, and again in 2000 with the acquisition of the Psychiatric Hospital.

In 1999, an affiliation agreement was established between the medical school and Yale New Haven Health System, which included multiple non-profit healthcare enterprises, to collectively grow in the areas of clinical programs, clinical research and medical education.

In 2009, the 14-story Smilow Cancer Hospital opened, and in 2012 YNHH acquired the Hospital of Saint Raphael, adding 533 beds and making it one of the largest hospitals in the United States. The medical center has grown over the years to include the institutions listed at right.

In West Haven, the affiliated VA Connecticut Healthcare System maintains clinical, research, and education programs in conjunction with many medical school departments.

Medical Institutions	
Connecticut Mental Health Center	
John B. Pierce Laboratory	
Yale Health	
Yale Medicine	
Yale School of Medicine	
Yale School of Nursing	
Yale School of Public Health	
Yale New Haven Health, including:	
– Bridgeport Hospital	
– Greenwich Hospital	
– Lawrence • Memorial Hospital	
– Northeast Medical Group	
– Westerly Hospital	
– Yale New Haven Hospital	
– Yale New Haven Children's Hospital	
– Yale New Haven Psychiatric Hospital	
– Smilow Cancer Hospital at Yale New Haven	



## Yale and New Haven

Yale School of Medicine (YSM) is located on the main campus of Yale University. With a residential college system modeled after those of Cambridge and Oxford, the undergraduate school is complemented by the Graduate School of Arts and Sciences and 13 professional schools, including Architecture, Art, Divinity, Drama, Engineering and Applied Science, Forestry and Environmental Studies, Global Affairs, Law, Management, Medicine, Music, Nursing, and Public Health, which will assume independent school status in July 2024.

In 2007, Yale acquired the 136-acre West Campus in West Haven, which houses many centers, including Yale Centers for Genome Analysis, Molecular Discovery, and Research Computing, as well as the Analytical, Imaging, and Materials Characterization research cores. Yale institutes based at West Campus include Biomolecular Design and Discovery, Cancer Biology, Energy Sciences, Microbial Sciences, Nanobiology, Preservation of Cultural Heritage, and Systems Biology.

Established in 1638, New Haven was the first planned municipality in America, organized geographically in nine squares, including a picturesque town green. Today, New Haven is a vibrant coastal city located on Long Island Sound between New York and Boston. Cultural opportunities abound, from dance, theater, and music to the treasures of Yale's art and natural history museums.

New Haven Profile	
2020 Population	134,023
DISTANCE FROM:	
NYC	80 miles
Boston	137 miles
University Profile	
Yale totals include YSM	
FACULTY	
Yale	5,449
YSM	3,498
STAFF	
Yale	11,500
YSM	4,053
STUDENTS	
Yale	15,081
YSM <sup>8</sup>	1,840

**Community Service**  
Our students immerse themselves in New Haven's community. They work to deliver health care for community members, participate in public advocacy throughout the city, and serve as role models and mentors through volunteer work in the schools.

**Community Service Organizations**  
– Columbus House  
– Downtown Evening Soup Kitchen  
– HAVEN (student-run free clinic)  
– Health Professionals Recruitment and Exposure Program  
– Hill Regional Career High School Anatomy Teaching Program  
– Hunger & Homelessness Action  
– Neighborhood Health Project  
– New Haven PAWS Project (Poverty Alleviation through Washing Soles)  
– Refugee Patient Navigator Program  
– Youth Science Enrichment Program  
– Integrated Refugee & Immigrant Services (IRIS)



## International Activities

The School of Medicine is an active partner in fulfilling Yale's international goals, which include preparing students for international leadership and service, attracting the most talented students and scholars to Yale from around the world, and positioning Yale as a global university of consequence. Faculty members conduct research abroad, teach, and design courses in global health. Their work runs the gamut from molecular studies at the nanoscale to the analysis of social networks in disease transmission and prevention, to the improvement of health care systems.

### PROGRAMS AT YALE

**Office of Global Health** Facilitates the placement of Yale medical students in global clinical electives at sites in Argentina, Chile, China, Colombia, Dominican Republic, Ghana, India, Jamaica, South Africa, Uganda, and the U.S. (rural sites in Appalachia and on the Navajo Nation in Arizona as well as in free clinics in New Haven and San Francisco). The office also administers the Visiting International Student Electives Program.

**Downs International Health Student Travel Fellowship** Supports students who undertake health-related research, primarily in low- and middle-income countries.

**Yale/Stanford Global Health Scholars** Sponsors rotations abroad for Yale house staff and physicians from other institutions, who travel to six sites in Africa and Asia.

**Yale Institute for Global Health**  
A university-wide effort led by the Schools of Medicine, Nursing, and Public Health that serves as the focal point for research, education, and engagement with global partners to improve the health of individuals and populations worldwide.

**Yale Office of International Affairs**  
A resource for establishing and maintaining collaborations abroad, drawing on existing relationships on six continents. It maintains an online faculty research database.

**Norwegian University of Science and Technology** A partnership that provides support for the exchange of students, fellows, and faculty in such areas as cancer, immunology, neuroscience, and public health.

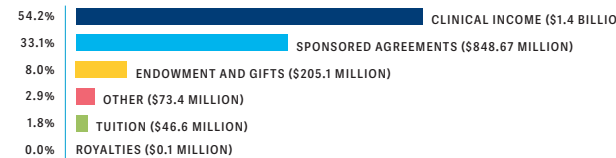
By the Numbers 2023–24	
INTERNATIONAL STUDENTS AT YALE	
MD	8.4%
MPH	38%
PhD (Sciences)	28%
YALE STUDENTS/TRAINEES ABROAD	
MD (international sites)	7
MD (domestic sites)	2
MPH <sup>9</sup>	40
Downs Fellows	12
Yale/Stanford Scholars	16
VISITING MD STUDENTS AT YALE	
From other nations	94

## Finance

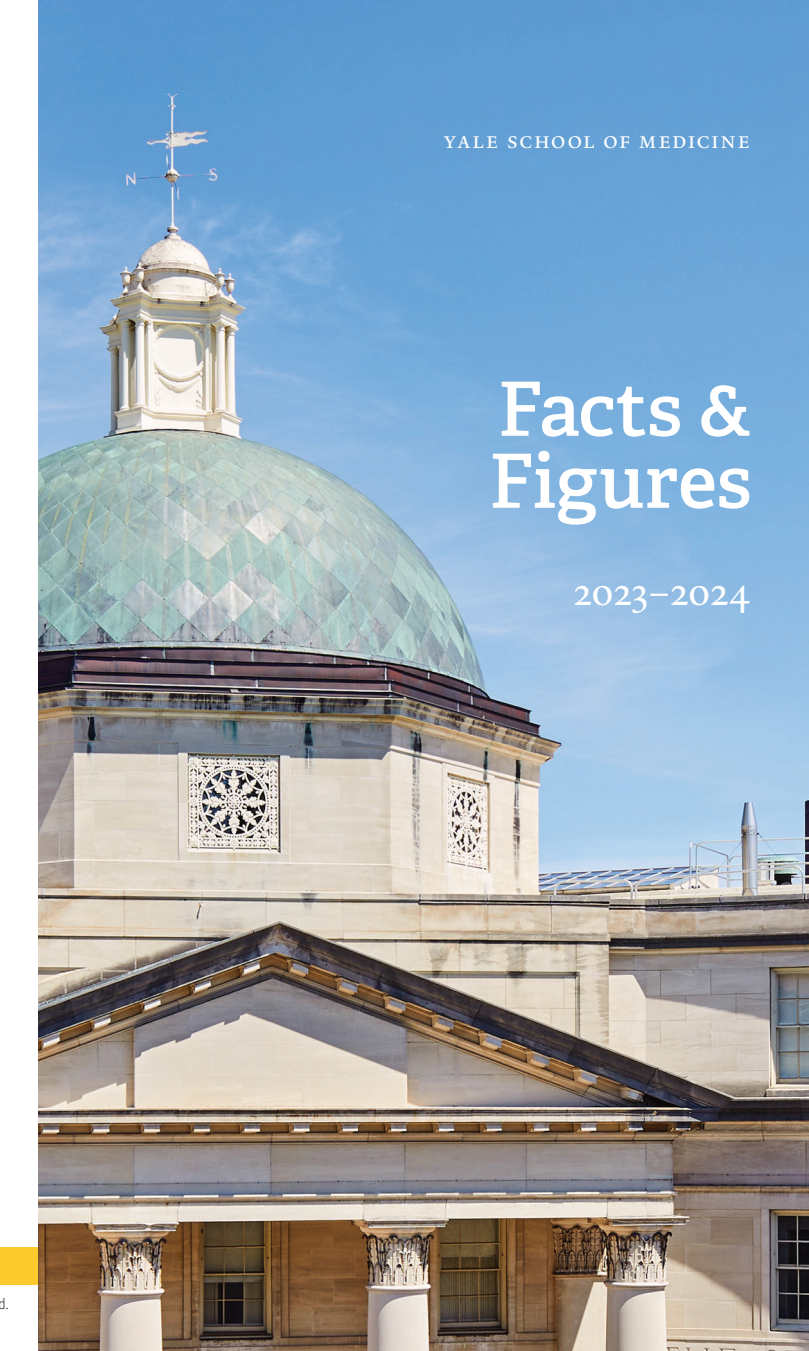
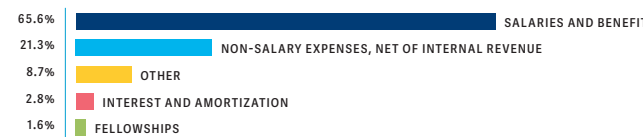
The School of Medicine had operating income of \$2.6 billion in FY23. A total of \$848.67 million in sponsored research funding was received and spent during the fiscal year.<sup>10</sup> Clinical income totaled \$1.39 billion. The school ranked fourth among medical schools receiving research funding from the NIH in FY23 and 10th in NIH grants per faculty member. Salaries and benefits totaled 65.6% of expenditures.

Endowment	
Yale	\$40.5 billion
YSM	\$3.72 billion
2023 Operating Income	
Yale	\$5.1 billion
YSM	\$2.6 billion
2023 Capital Projects	
NEW CONSTRUCTION/ACQUISITIONS	
Yale	\$32.3 million
YSM	\$0
RENOVATIONS/ALTERATIONS	
Yale	\$415.5 million
YSM	\$114.2 million

### INCOME: \$2.6 BILLION TOTAL



### EXPENDITURES



YALE SCHOOL OF MEDICINE

# Facts & Figures

2023–2024

**1965** Yale School of Medicine and Grace-New Haven Community Hospital revise their affiliation, creating Yale New Haven Hospital **1970** Physician Associate Program founded **1974** Yale Cancer Center established **1991** Boyer Center for Molecular Medicine completed **1993** Yale New Haven Children's Hospital opens **2003** The Anlyan Center for Medical Research & Education at Yale is completed **2007** Amistad Street Building opens **2007** Yale West Campus acquired **2009** Smilow Cancer Hospital at Yale New Haven opens **2010–11** Yale School of Medicine celebrates its bicentennial **2012** Yale New Haven Hospital acquires the Hospital of Saint Raphael **2021** Wu Tsai Institute, an interdisciplinary research endeavor, is founded

<sup>6</sup> Yale New Haven Hospital data as of 9/30/23; includes the Children's Hospital, Psychiatric Hospital, Smilow Cancer Hospital, and the former Hospital of Saint Raphael, which was acquired by YNHH on 9/12/12. Licensed beds include bassinets. <sup>7</sup> Number of patients treated and released from the ED. This does not include those ED visitors who were admitted.

<sup>8</sup> Further breakdown can be found on the Education page.

International Activities photo courtesy of YSM Communications

<sup>9</sup> Further breakdown can be found on the Education page.

<sup>10</sup> Research income doesn't equal award amounts as research dollars aren't always spent during the period in which they're awarded.