Baylor College of Medicine



## ANNUAL REPORT

**INCLUDING A 15-YEAR REVIEW** 









## D.I.R.E.C.T.

The Baylor College of Medicine Strategic Plan

## Discover.

Applying biomedical discoveries to drive novel therapeutic approaches

## Innovate.

Developing a learning health system model through data analytics, collaboration and integration

## Reach.

Integrating care networks and innovative programs to support and improve the health of individuals and populations

## Educate.

Preparing scientists and healthcare professionals to lead learning health systems

## Create.

Developing a culture and climate of excellence to recruit, retain and develop outstanding faculty, staff and learners

### Treat.

Caring for individuals using an innovative patient-centered care model and a data-driven approach to prediction, diagnosis, prevention and cure of disease



Dear Baylor College of Medicine Friends and Colleagues,

The last year has been a great one for Baylor College of Medicine as we pushed the boundaries of research and patient care, served our community locally and globally and saw our Temple regional campus grow and become even more entwined with the Houston Campus. Our goal of One School, Two Campuses has become a reality.

While we celebrate our accomplishments, we also are focused on the national research funding situation, which could have a major impact on Baylor's ability to fund groundbreaking science. We are committed to solutions and the College continues to move forward.

In this annual report, we update you on progress in the areas of our DIRECT strategic plan: Discover, Innovate, Reach, Educate, Create, Treat. As I celebrated 15 years at Baylor College of Medicine on Sept. 1, we also included a section on some of the highlights since 2010.

Here are examples in each area. Many more are included in the report.

**DISCOVER:** In FY25, we had major achievements in science, including the discovery of fossils of ancient chromosomes in the remains of a woolly mammoth that died 2,000 years ago. The Baylor team worked with other international groups to find that the chromosomes share many structural features with modern chromosomes. The discovery was featured on the cover of *Cell* and in newspapers and on broadcast stations throughout the world. Research like this is what gives Baylor the status of being a Tier 1 medical school for research, a ranking given by *U.S. News & World Report*.

**INNOVATE:** We launched a Phase 1 Clinical Trial Program at the Dan L Duncan Comprehensive Cancer Center. With the University of Houston, Baylor received a \$44 million Clinical and Translational Science Award to establish a Consortium for Translational and Precision Health.

**REACH:** Globally, we launched a sickle cell disease program in Africa. On our own campus, we teamed up with Second Servings to have regular pop-up events providing food to students donated by grocery stores and restaurants.

**EDUCATION:** This year we graduated 191 students from the School of Medicine, 80 from the Graduate School of Biomedical Sciences, and from the School of Health Professions, 32 Physician Assistants, 27 Doctors of Nursing Practice, 24 Orthotics and Prosthetics professionals and 9 genetic counselors. Our middle and high school STEM programs continue to grow throughout Texas.

**CREATE:** This part of the strategic plan revolves around developing a climate of excellence to recruit, retain and develop outstanding faculty, staff and learners. This year, a number of faculty won national awards. In addition, a ceremony was held to celebrate the topping out of our new educational building, the Lillie and Roy Cullen Tower on the McNair Campus.

**TREAT:** Baylor and Baylor St. Luke's Medical Center performed the first fully robotic heart transplant in the United States, marking a major medical milestone. Texas Heart Institute and Baylor surgeons also implanted the first-in-human BiVACOR total artificial heart. Coming soon is our second Concierge Medicine clinic in The Woodlands. The first clinic opened in 2022.

Those are just a few of the accomplishments this year. Looking back over 15 years, I am amazed but not surprised by what our faculty, staff and leaders accomplished during this period.

The McNair Campus is unrecognizable from 2010 when we had shuttered the hospital building because of the economy. Baylor St. Luke's Medical Center, our joint venture hospital, now has a commanding presence on the McNair Campus, along with the O'Quinn Building housing the Dan L Duncan Comprehensive Cancer Center and the Cullen Tower set to open next year. Next door, in the Texas Medical Center's Helix Park, Baylor became the anchor tenant for Dynamic One, featuring highly innovative labs, novel diagnostics and therapeutics.

This report includes a full page on our leadership during COVID. While it sometimes doesn't seem real, Baylor was everywhere – developing vaccines, providing vaccines, testing wastewater to predict outbreaks, sequencing the virus, treating patients at the Long COVID clinic and helping school districts, businesses and community organizations reopen safely.

So much more is covered in this report, from the Temple Campus to the completion of a strategic integration with the Texas Heart Institute to adding a new academic center to Baylor's fold - The Texas Heart Institute at Baylor College of Medicine.

Baylor College of Medicine is an outstanding institution built on science and great faculty and staff. I am so proud of all that we accomplish every day, every year.

Here's to many more achievements in the future!

Oe & X Johnson

Paul Klotman, M.D.

## Discover.

Applying biomedical discoveries to drive novel therapeutic approaches

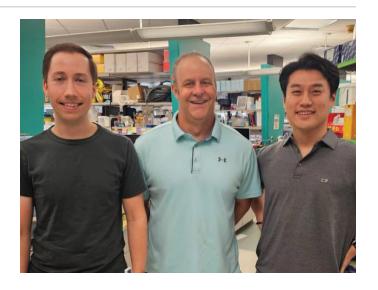


#### Baylor named Tier 1 Medical School for Research by USNWR

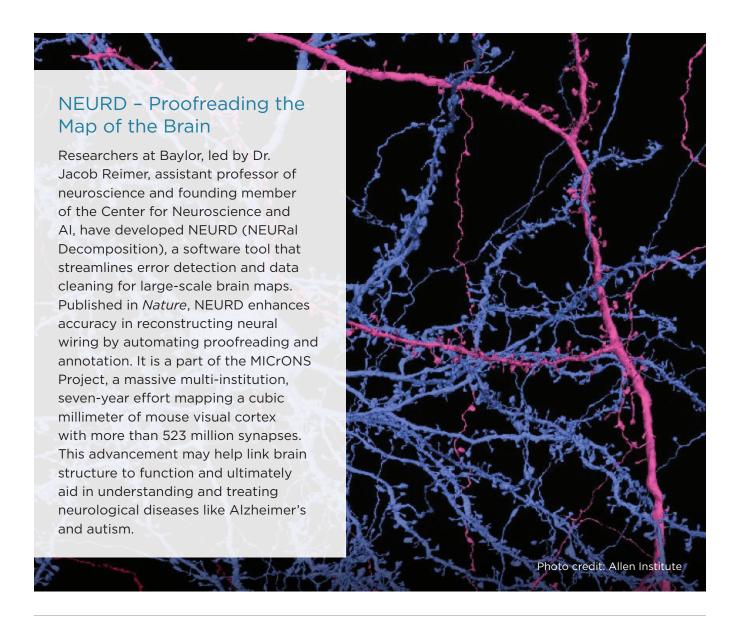
Baylor College of Medicine is recognized as a top institution for medical research, earning Tier 1 status in the *U.S. News & World Report* 2025 Best Graduate Schools rankings. Baylor is one of only 16 medical schools in the nation to receive this designation, and one of only two in Texas. In addition, USNWR ranks Baylor's Graduate School in Biomedical Sciences No. 25 in biological science graduate programs in the nation. In the School of Health Professions, the Physician Assistant Program is ranked 6th and the Doctor of Nursing Practice is ranked 4th in the nation.

#### For the second year in a row, Baylor wins STAT Madness

Dr. Benjamin Deneen, professor and Dr. Russell J. and Marian K. Blattner Chair in the Department of Neuroscience, led a team of researchers to a STAT Madness win. Modeled after the NCAA March Madness tournament, STAT Madness includes 64 studies with the winner being elected by popular vote. This is the second year in a row Baylor research has won the popular vote in this bracket-style competition. This latest win was for work identifying a new way memories are stored and recalled. Researchers showed

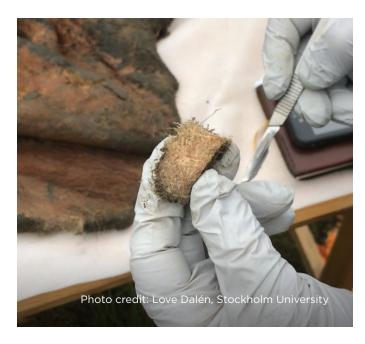


how star-shaped cells called astrocytes are involved in the learning and memory process. Until now, memory recall has only been associated with the activity of brain cells called neurons. Dr. Michael Williamson and Dr. Ukbong Kwon, along with Deneen, led the team of researchers who took part in the research, which was originally published in *Nature*. STAT is an online publication reporting on health, medicine, biotech and life sciences.



## Fossils of ancient chromosomes discovered

A team led by scientists from Baylor, University of Copenhagen, Centre Nacional d'Anàlisi Genòmica and Centre for Genomic Regulation discovered fossils of ancient chromosomes in the remains of a woolly mammoth that died 52,000 years ago. The fossils preserve the structure of the ancient chromosomes down to the nanometer scale. The chromosomes share many structural features with modern chromosomes such as chromatin loops, structures as small as 50nm that the Baylor team had mapped in humans, for the first time, only 10 years ago. The discovery was featured on the cover of *Cell*.



### Innovate.

Developing a learning health system model through data analytics, collaboration and integration



#### Dan L Duncan Comprehensive Cancer Center launches Phase 1 clinical trial program

The Dan L Duncan Comprehensive Cancer Center has launched the Albert and Margaret Alkek Foundation Center for Experimental Therapeutics, a Phase 1 clinical trial program focused on early stage testing of novel cancer therapies. The program, supported by the Alkek Foundation, aims to provide patients with access to cutting-edge treatments, including therapies targeting specific genetic mutations. The program streamlines the referral process to broaden patient access and advance cancer research and care.

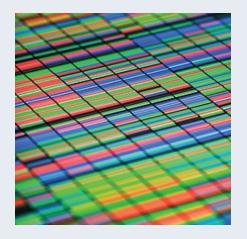


**TRANSLATIONAL &** PRECISION HEALTH HOUSTON



#### BCM. UH to create regional translational research hub

Baylor College of Medicine and the University of Houston have received a \$44.2 million Clinical and Translational Science Award to establish the Consortium for Translational and Precision Health (CTPH). This regional hub will enhance infrastructure, services, community engagement and workforce development to advance clinical translational research. The CTPH draws on both institutions' strengths in science, health and entrepreneurship, partnering with Texas Medical Center and local healthcare groups. It will fund pilot projects, support research planning and accelerate innovation from discovery to population impact.



#### Medical Genetics Multi-Omics Lab created

Baylor Genetics and the Department of Molecular and Human Genetics have launched the Medical Genetics Multi-Omics Laboratory (MGML) to drive innovation in clinical diagnostics. The first offering, whole transcriptomic RNA sequencing (WT RNAseq), enhances rare disease diagnosis by analyzing all RNA molecules, identifying disease-causing genes. Offered through the NIH-funded Undiagnosed Diseases Network, this test could boost diagnostic yields by 10-17%. The collaboration aims to expand test offerings and accelerate access to advanced diagnostics for patients with complex genetic conditions.

## Reach.

Integrating care networks and innovative programs to support and improve the health of individuals and populations



#### GRAB Market by Second Servings launched

The GRAB (Grocery Resource at Baylor), a food pantry designed to supplement food insecure students, partnered with Second Servings to launch the GRAB Market. Second Servings is a nonprofit, Houston-based program that collects fresh, prepared and perishable surplus food from local grocery stores for distribution to prevent food waste. Students can pick from produce, meat and dairy (based on availability) at no cost. The GRAB Market is held monthly during the academic year and is organized and run by the Office of Communications and Community Outreach and Baylor volunteers.

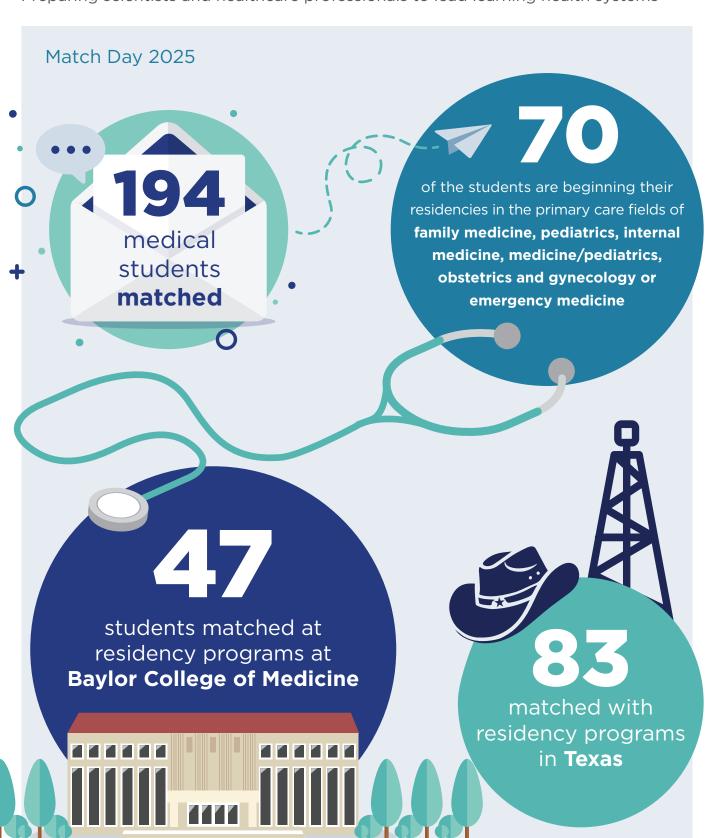
## Program launched to combat sickle cell disease in Africa

Texas Children's Global HOPE, Baylor College of Medicine Global Health and the Bristol Myers Squibb Foundation have launched a major initiative to combat sickle cell disease in sub-Saharan Africa, starting in Tanzania and Uganda. The program, called SCALE, aims to integrate early screening, vaccinations, penicillin and hydroxyurea into primary healthcare, improving survival and quality of life for children. Building on decades of pediatric HIV/AIDS efforts, the initiative focuses on training local health workers and delivering sustainable care.



## Educate.

Preparing scientists and healthcare professionals to lead learning health systems



#### Graduation ceremonies

Commencement 2025 took place at a new location, Smart Financial Centre in Sugar Land where 280 students received their degrees. Massachusetts Institute of Technology President Dr. Sally Kornbluth received an honorary Doctor of Letters in Medicine degree and delivered the commencement address. Others receiving honorary degrees were Charles Hall of the MD Anderson Foundation and Dr. Rochelle Walensky, former director of the Centers for Disease Control. Earlier that day, Baylor's Military Commissioning Ceremony was held, honoring two School of Medicine graduates who were commissioned into the U.S. Air Force.





In December 2024, 83 students graduated from three School of Health Professions programs.

Graduates Per School			
191	School of Medicine		
80	Graduate School of Biomedical Sciences		
32	School of Health Professions - Physician Assistant		
27	School of Health Professions - Doctor of Nursing Practice		
24	School of Health Professions - Orthotics and Prosthetics		
9	School of Health Professions - Genetic Counseling		

Dual Degree Program Graduates			
14	M.D./Ph.D.		
14	M.D./M.B.A.		
5	M.D./M.P.H.		

School of Medicine Educational Pathways					
5	Genetics & Genomics	1	Medical Humanities		
8	Global Health	5	Medical Research		
4	Health Policy	2	Space Medicine		
5	Medical Ethics & Health Policy				

### Create.

Developing a culture and climate of excellence to recruit, retain and develop outstanding faculty, staff and learners

#### Nolan Ryan Foundation Supports Skin Cancer Research

Baylor College of Medicine received a \$2 million gift from the Nolan Ryan Foundation to support groundbreaking work in skin cancer and melanoma education, research and prevention. This transformative contribution will be directed under the leadership of Dr. Ida F. Orengo, chair of the Department of Dermatology, and will focus on recruitment, public education, research and training.







#### Allen and Kanwal elected to the American Association of Physicians

Two Baylor College of Medicine faculty members, Dr. Carl Allen and Dr. Fasiha Kanwal, Nancy Chang, Ph.D., Endowed Professorship, are among the newly elected members of the American Association of Physicians (AAP). Allen is a professor of pediatrics – hematology and

oncology and co-director of the Texas Children's Cancer Center Histiocytosis and Lymphoma Programs. Kanwal is a professor of medicine – gastroenterology and hepatology. The AAP is an honorific, elected society of America's leading physician-scientists who exemplify the pinnacle of pioneering impactful contributions to improve health.

#### Goodell named to the National Academy of Sciences

Dr. Margaret "Peggy" Goodell, chair and professor of the Department of Molecular and Cellular Biology and an expert in the field of stem cell research, has been elected as one of the newest members of the National Academy of Sciences. She is recognized for her distinguished career and continuing achievements in original science and research. Her work has significant impact for regenerative medicine, leukemia research and aging. She holds the Vivian L. Smith Chair in Regenerative Medicine.



#### Dr. Pavan Reddy elected 2024 AAAS Fellow

Dr. Pavan Reddy, director of the Dan L Duncan Comprehensive Cancer Center at Baylor College of Medicine, has been elected to the newest class of American Association for the Advancement of Science (AAAS) Fellows. Reddy is recognized for his work to revolutionize the care of patients to control graft-versus-host disease (GVHD), with seminal insights into immunological modulation of this challenging disease. He holds the John O'Quinn Foundation Chair in Cancer.





#### Dr. Peter Hotez awarded 2025 Hill Prize by TAMEST

Dr. Peter Hotez, dean of the National School of Tropical Medicine at Baylor College of Medicine and co-director of the Texas Children's Hospital Center for Vaccine Development, is part of the group of recipients for the 2025 Hill Prize by the Texas Academy of Medicine, Engineering, Science and Technology (TAMEST). The award supports and recognizes high-risk, high-reward ideas and innovations that demonstrate significant potential for real-world impact and can lead to new paths in research.





#### Construction milestone reached on Lillie and Roy Cullen Tower

Baylor College of Medicine marked a significant milestone with the topping out of the Lillie and Roy Cullen Tower, the newest addition to its expanding campus. This 503,000-square-foot facility will house Baylor's School of Medicine and School of Health Professions. As part of the milestone celebration in construction, Baylor announced that with the help of many generous supporters, the institution reached its fundraising goal of \$150 million to fund the building.

### Treat.

Caring for individuals using an innovative patient-centered care model and a data-driven approach to prediction, diagnosis, prevention and cure of disease

#### First fully robotic heart transplant

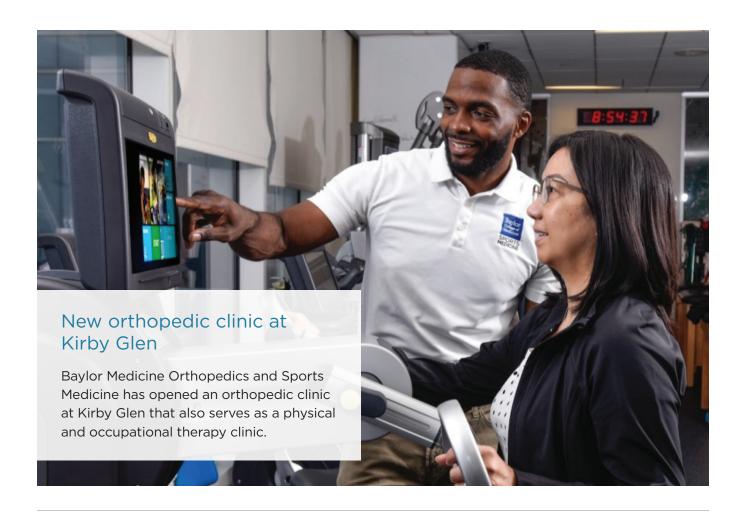
Baylor surgeons at Baylor St. Luke's Medical Center performed the first fully robotic heart transplant in the U.S., marking a major medical milestone. Led by Dr. Kenneth Liao, professor and chief of cardiothoracic transplantations and circulatory support, the procedure avoided opening the chest by using small, precise robotic incisions. This approach reduced surgical trauma, bleeding, infection risk and improved recovery.





## Child with rare epileptic disorder receives long-awaited diagnosis

Researchers at Baylor College of Medicine, the Jan and Dan Duncan Neurological Research Institute at Texas Children's Hospital, Baylor Genetics and collaborating institutions provided a long-awaited and rare genetic diagnosis in a child with Lennox-Gastaut syndrome, a type of developmental epileptic encephalopathy (DEE), associated with a severe, complex form of epilepsy and developmental delay. Researchers say this is the first case of reshuffling chromosomes that lead to a form of DEE due to a disruption in a specific region of the chromosome.





# Successful first-in-human implantation of the BiVACOR Total Artificial Heart

Surgeons at Texas Heart Institute at Baylor College of Medicine and Baylor St. Luke's Medical Center carried out the first-in-human successful implantation of the BiVACOR Total Artificial Heart. It was part of the U.S. Food and Drug Administration Early Feasibility Study. The device is a titanium-constructed biventricular rotary blood pump with a single moving part that utilizes a magnetically levitated rotor that pumps the blood and replaces both ventricles of a failing heart. The patient was able to continue their wait for a heart transplant, which was successfully carried out weeks later.



#### The McNair Campus .... Much growth over 15 years

When Dr. Klotman joined Baylor in 2010, the College's Jamail Building featuring outpatient services was on the McNair Campus, along with a hospital building that was under construction but was paused and shuttered during the Great Recession.

Soon after arriving, Dr. Klotman announced that a section of the shuttered hospital would open as outpatient clinics. The first clinics moved to the building in 2013, a year before Baylor and Catholic Health Initiatives signed a joint venture agreement to become co-owners of Baylor St. Luke's Medical Center. Some hospital services opened in the building in 2019 and that year CHI Dignity merged into CommonSpirit Health. In 2020, most of the

remaining Baylor clinics moved to the building.

Activity on the McNair Campus continued. Construction began on a new medical school building, the Lillie and Roy Cullen Tower, expected to open in 2026. The original O'Quinn Tower on Fannin Street was replaced in 2023 with a newly constructed building on the McNair Campus, housing Baylor's Dan L Duncan Comprehensive Cancer Center, as well as other outpatient services.

Next door, in the Texas Medical Center's Helix Park, Baylor became the anchor tenant for Dynamic One, featuring highly innovative labs, novel diagnostics and therapeutics.

## **BAYLOR**GENETICS

Baylor and Miraca Inc, now H.U. Group Holdings Inc., one of Japan's leading pathology companies, formed a joint venture for diagnostic genetics. Baylor Genetics is a thriving diagnostic practice.



The NIH awarded comprehensive status to the Dan L Duncan Comprehensive Cancer Center in 2015.



The Faculty Senate was created in 2015 to increase faculty input into governance of the College. This group photo of new senators was taken in 2022.

#### **COVID: At Baylor - all hands on deck**









Baylor College of Medicine led locally and nationally during the COVID pandemic. All areas of the College were involved.

One of the first things was the establishment of an Incident Command Center led by Dr. James McDeavitt, executive vice president and dean of clinical affairs of the College. This group of experts across missions met frequently to ensure Baylor was following safe practices, enacting guidelines for return to work after illness, planning staffing for testing and giving vaccines once approved and answering hundreds of questions from faculty, staff and trainees.

On the research side, the College played a major role in vaccine development, clinical trials, and PCR testing and genomic sequencing of COVID-19 samples. Baylor also was a collaborator in developing wastewater surveillance, which became a predictor of where virus cases likely would peak next.

UTHealth Houston School of Public Health and Baylor working together on this project led to the establishment of TEPHI - Texas Epidemic Public Health Institute.

Clinically, Baylor launched a multidisciplinary clinic to treat patients with long COVID symptoms, offering care across pulmonary, neurological, cardiovascular and psychiatric areas and Baylor faculty led infection control efforts at affiliated hospitals, including Baylor St. Luke's Medical Center, Ben Taub Hospital and the DeBakey Veterans Affairs Medical Center.

Baylor helped school districts, community groups, religious organizations and businesses plan for a safe way to reopen after a shutdown period. The school became a major resource for these groups and the public in general. Dr. Klotman was a key part of a Texas Medical Center CEO group that helped the city and county make decisions.



After the pandemic began, Dr. Klotman recorded a video to thank the faculty and staff on the front lines, as well as to encourage all members of the Baylor family during this stressful time. That one video quickly became a weekly resource. The video distributed on the last Friday of August 2025 was No. 284. After the pandemic ended, Dr. Klotman continued to give virus updates and to share other news about Baylor. He continues to hear from viewers about how they look forward to the weekly videos.

#### **New Departments and Centers**



Department of Emergency Medicine



Department of Radiation Oncology



Huffington Department of Education, Innovation and Technology



Translational Research Institute for Space Health



Therapeutic Innovation Center



Center for Precision Environmental Health



The Texas Heart Institute at Baylor College of Medicine



THE TEXAS HEART INSTITUTE

#### Newest academic center - The Texas Heart Institute at Baylor College of Medicine

The Texas Heart Institute and Baylor College of Medicine completed a strategic integration in 2025 that resulted in The Texas Heart Institute at Baylor College of Medicine. This is a new academic center for the College. The director is Dr. Joseph Rogers, who was the president and CEO of THI.



#### **Dr. Peter Hotez recruited to Houston**

Dr. Peter Hotez was recruited to Baylor and Texas Children's as the founding dean of Baylor's National School of Tropical Medicine and co-director of Texas Children's Center for Vaccine Development. Dr. Maria Elena Bottazzi is senior associate director of the tropical medicine school and co-director of the center for vaccine development.



Nine strategic research centers have been created since Dr. Paul Klotman was named president, as well as **27 Advanced Technology Cores**, which serve all faculty.

#### Created 27 Advanced Technology Cores (serve all faculty) **Alkek Center** Center for Cardiovascular for Metagenomics Alzheimer's & & Microbiome Research Institute Neurodegenerative Research Diseases Center for Center for **Center for** Coregulator **Cancer Neuroscience Drug Discovery** Research Center for Center for Center for Translational Research **Neuroscience &** NextGen on Inflammatory Artificial Intelligence **Therapeutics** Diseases

#### **Medical school curriculum updated**

During the first 16 months of medical school at Baylor College of Medicine, the faculty conveys the knowledge required for future physicians and skills necessary to lead and participate in effective teams.

A quick look at Baylor's curriculum:

In the first year, students learn the foundations of medicine before studying varied specialties. Clerkships start in the second year, followed by more clerking opportunities, electives and experience in the ICU and emergency medicine during year three. By their fourth year, students take the United States Medical Licensing Examination (USMLE) exam, complete an inquiry project and transition to residency.

For 20 years, more than 98% of Baylor's students have passed the USMLE Step 1 exam on the

first try. The 2022-'23 report from the National Board of Medical Examiners showed that Baylor students scored an average of 255 on the Step 2 clinical knowledge exam, compared to the national average of 247.

Tomorrow's healthcare leaders need transferable skills, such as communication, leadership and conflict management in addition to knowledge of the medical sciences. Active learning strategies are used to help build deeper understanding and mastery of these skills.

Baylor's commitment to high-level curriculum, services, resources and support are best demonstrated by the students' averages in testing and their placement in renowned residency programs, as well as the success of alumni in providing patient-centered care and serving as local, national and international leaders.

#### **Baylor expands concierge healthcare programs**

Baylor established its Concierge Medicine Program in 2022. It currently has two components, with an eye on expanding in the near future.

Baylor Medicine Concierge Healthcare is a membership-based primary care clinic. It provides advanced, accessible, comprehensive, highly personalized care. Patients have access to their primary care physician, with a multidisciplinary team available as needed. The clinic is located on the McNair Campus, with a second location coming soon in The Woodlands.

In addition, 360 Executive Health is a one-day comprehensive health evaluation designed for high-performance individuals. An array of labs and diagnostics administered by a team of experts provides a robust analysis of the patient's overall health — completed in a single day.

Coming next is a longevity clinic that will focus on living a longer, healthier life, with the use of genetics and technology to guide an individualized care plan.



## Baylor partners with Houston Livestock Show & Rodeo

In 2016, Baylor College of Medicine formed a partnership with the Houston Livestock Show & Rodeo. In 2025, HLSR celebrated its 93rd year as Houston's premier non-profit organization supporting Texas area youth education. HLSR has donated more than \$630 million in scholarships and grants to support education to Texas area youth.

#### **Baylor opens the GRAB**

In 2022, Baylor opened the GRAB (Grocery Resource at Baylor), a free program for food insecure students from all schools. The popular program has expanded to include hygiene products and cleaning supplies. Students register and are able to pick up a grocery bag weekly during the academic year.





#### **Baylor continues to expand pipeline programs**

Baylor College of Medicine has several pathway programs in the Houston Independent School District that promote education and learning toward careers in the medical and health science fields: Michael E. DeBakey High School for Health Professions, Baylor College of Medicine Biotech Academy at Rusk and the Baylor College of Medicine Academy at James D. Ryan Middle School.

Similar pathway programs are under development in Belton, Temple, Corpus Christi, Stafford, and Midland Independent School Districts.

#### BY THE NUMBERS

2010 - 2025

\$1.4 billion

raised through fundraising efforts



Recruited **34 new** department chairs and center directors



Increased the endowment by

250%





**Tripled** gross income

and faculty practice revenues

Became the

No. 1 ranked medical school

for research dollars in the state of

**Texas** 



Improved credit rating to

A with stable outlook



created with Baylor intellectual property



Significantly increased

employee satisfaction,

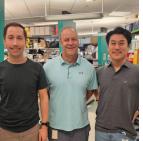


resulting in being recognized as a leader in this area



Took the "Baylor brand" to a new level, with Baylor's name and logo on display in buildings throughout the TMC, on the McNair and Helix Park campuses and at clinics throughout the Greater Houston area and schools throughout the state





Baylor College of Medicine





