

Baylor
College of
Medicine

The Roy and Lillie Cullen Building

ANNUAL REPORT

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2

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DIRECTS

DIRECTS

DISCOVER



the fundamentals of human disease and health

INVEST



in the human and technological resources necessary for innovation

REACH



the community locally, nationally and globally

EDUCATE



generations of lifelong learners dedicated to excellence in biomedical research, patient care and education

CREATE



the learning health delivery system of the future

TRANSLATE



our discoveries into new diagnostics, treatments and cures

SUSTAIN



an operationally excellent and fiscally stable platform



Dear Baylor College of Medicine Friends and Colleagues,

There is no doubt that this year has been the most challenging time in our professional and personal lives. All of us have learned about the importance of regularly communicating with family and friends, finding a work/life balance when your living room or dining table is now your office and knowing when to take a break to focus on your mental health and wellness.

We started this fiscal year focusing on the next stages of growth in our strategic plan and by the end of it, we found ourselves in the midst of a global pandemic.

Though we have a ways to go before we have any semblance of normal life, I want to emphasize how grateful I am to members of the Baylor College of Medicine community for everything they have contributed in keeping the College operational. Each person contributes in their own way in making Baylor a great institution that cares for patients, leads cutting-edge research, educates future healthcare providers and scientists and cares for our community.

I also want to extend my gratitude to our donors for their outpouring of support in raising \$6 million to help us accelerate our COVID vaccine research, therapeutic discovery and expansion of testing as well as to protect our frontline workers. I'd also like to thank the Board of Trustees, alumni and donors who contribute to the College and help provide an operationally excellent and fiscally responsible platform.

Baylor has been a part of the Houston community for more than 75 years, and our strong relationship with city and county leaders through this pandemic has further reinforced our commitment to the city. We play a key role in the future of Houston and do not take that responsibility lightly.

Our affiliated hospitals, Baylor St. Luke's Medical Center, Texas Children's Hospital, Children's Hospital of San Antonio, Harris Health System, MD Anderson Hospital, Menninger Clinic, TIRR Memorial Hermann and the Michael E. DeBakey Veterans Affairs Medical Center, help us fulfill this commitment to Houston and Texas.

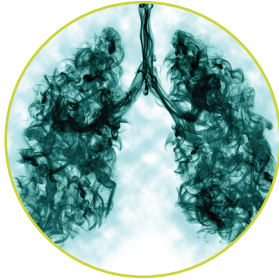
I know it is difficult to imagine what the future will look like over the next few months, but I know that we will take everything we have learned about the virus to make informed decisions for each of our mission areas. One thing that is certain, we will get through this together.

This year also has given us time to reflect on social justice, and I encourage you to continue to explore how we can work together and with our community to make meaningful changes across the College and community.

I hope you will take some time to review this report and see all that we have accomplished together in the past year, even in a global pandemic. I look forward to working with the Baylor community on achieving even greater things in the coming year.

Paul Klotman, M.D.

Major Discoveries



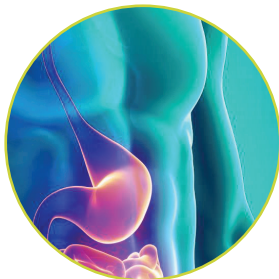
E-cigarettes disrupt lung function, raise risk of infection



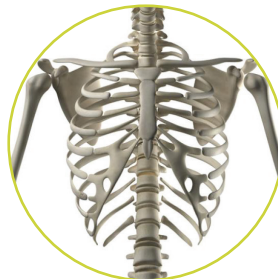
Diet influences microbiome of inner lining of colon and risk of disease



Device that may restore useful vision to the blind was tested in first-ever FDA-approved clinical trials



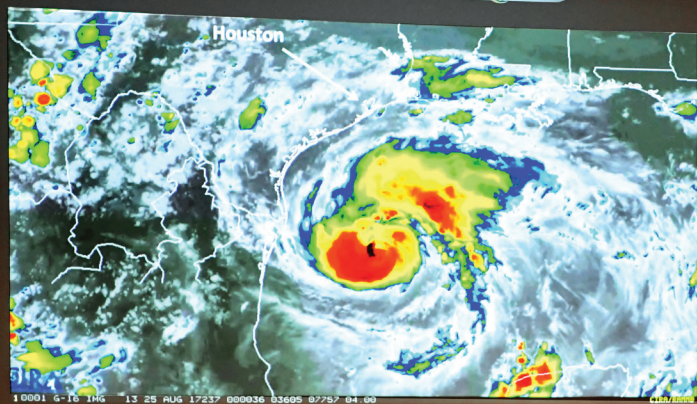
Bile acids open the door to norovirus infection



Periosteal stem cells are major contributors to bone healing



Scents can regulate fat storage

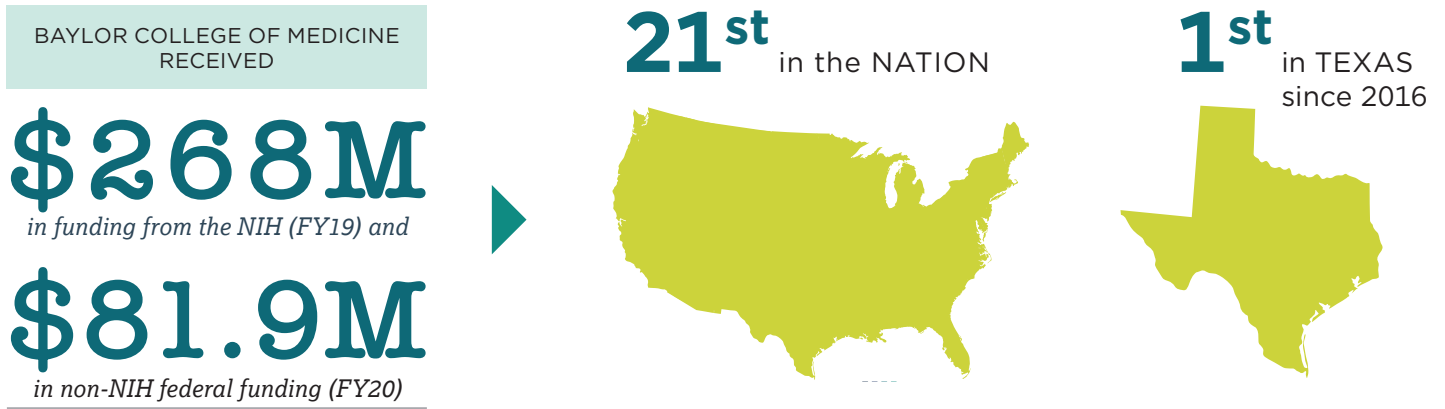


Researchers Share Harvey Health Impact Findings at Symposium

The Harvey Symposium brought together researchers from Baylor, the University of Texas Health Science Center at Houston, the University of Texas Medical Branch, Oregon State University and the National Institute of Environmental Health Sciences to share what they learned about the storm's impact on public health and the emergency response by healthcare providers during a major disaster. The research projects spanned the health spectrum, from the impact of pollutants on people with asthma to the effects of the storm on mental health. At the symposium, Houston Mayor Sylvester Turner and former Harris County Judge Ed Emmett were recognized for their work during and after the storm.



National Institutes of Health funding and non-NIH federal funding



#1

Department of Molecular and Human Genetics (since 2011)

#3

Department of Neurosurgery (was #14 in 2018)

#4

Department of Pediatrics (was #7 in 2018)

#6

Department of Neuroscience

#8

Department of Molecular and Cellular Biology

#11

Department of Molecular Physiology and Biophysics

According to Blue Ridge Institute for Medical Research

11 DEPARTMENTS RANK IN THE **TOP 30** IN NIH RESEARCH FUNDING

#13

Department of Obstetrics and Gynecology

#19

Bobby R. Alford Department of Otolaryngology – Head and Neck Surgery

#23

H. Ben Taub Department of Physical Medicine and Rehabilitation

#26

Department of Pathology and Immunology

#27

Department of Ophthalmology

Grant to Study Ethical Considerations in Human Genome Editing

A \$1.6 million grant from the National Institutes of Health will support a research team from Baylor and Arizona State University evaluating recent developments in human genome editing and associated responses from the public and scientific communities with a goal of developing recommendations for how to responsibly govern such research and technologies. The grant pairs Baylor’s strengths in bioethics, science policy and the study of the implications of emerging technologies and clinical research with Arizona State University’s renowned expertise in foresight, public engagement and participatory governance.

Cancer Prevention and Research Institute of Texas (CPRIT) Grants to Baylor

2007 to present

▶ \$304,603,098.25

2020

▶ \$2,697,374

Concierge Clinic Opens

In January 2020, the College launched Baylor Medicine Stratos Integrated Health, a new approach to primary care. This program offers patients a better

way to stay healthy through increased access to their own primary care physician and multidisciplinary team with guaranteed same- or next-day in-person appointments in a private, state-of-the-art clinic.



STRATOS
INTEGRATED HEALTH

BCM Ventures

BCM Ventures now incorporates the Baylor Licensing Group, Baylor College of Medicine Technologies and the Innovation Development Center. This team provides leadership, infrastructure and resources to commercialize Baylor knowledge and discoveries and bring them to the forefront of industry.

BCM Ventures recently established an Institutional Advisory Board for Commercialization, comprised of Baylor faculty with backgrounds in commercialization and entrepreneurship.

- ▶ **MD Anderson Cancer Center** signed a landmark license agreement with Takeda Pharmaceutical Co. Ltd. for rights to commercialize off-the-shelf cell therapies against cancer based on a proprietary natural-killer cell-based platform. Part of the transaction involved a genetic construct developed at Baylor and licensed to MD Anderson for its use. This construct, directed against the tumor antigen CD-19, worked well in early stage clinical trials and produced encouraging results.
- ▶ **Kuur Therapeutics** (formerly Cell Medica) announced a venture to develop anti-cancer therapies using its innovative chimeric antigen receptor natural killer T cell therapy platform. This NKT platform technology was developed in the Center for Cell and Gene Therapy at Baylor, Texas Children's Hospital and Houston Methodist.

OraSure Agreement

OraSure Technologies, Inc., a leader in point-of-care diagnostic tests and devices for specimen collection and



OraSure Technologies

stabilization, acquired the outstanding equity of Diversigen, a Baylor portfolio company founded by Dr. Joseph Petrosino, chair and professor of molecular virology and microbiology and director of the Alkek Center for Metagenomics and Microbiome Research. Diversigen provides science-driven, customized solutions for metagenomics sequencing, bioinformatics and statistical analysis for the study of the microbiome.

Baylor Medicine Launched

Recently, all Baylor outpatient healthcare clinics, previously referred to as the Faculty Group Practice, were rebranded as Baylor Medicine in an effort to enhance the identity of healthcare options and with the intention to establish Baylor Medicine as an industry leader in healthcare.

Specialty Clinics Move to McNair Campus



Several Baylor Medicine specialty clinics moved to the 6th floor of Baylor St. Luke's Medical Center on the McNair Campus. Clinics that participated in the move include: Pre- and Post-Operative Acute Care, Cardiology, Comprehensive Healthcare Clinic, Lung Institute, Cystic Fibrosis Center, Thoracic Surgery, Vascular Surgery.

Development of Telemedicine

To meet patients' ongoing, non-COVID-related health needs, the College rapidly implemented an array of telehealth options so that the appropriate social distancing practices could be followed and providers could prepare for a potential surge in demand.

BETWEEN MARCH 10 AND JULY 2,
THE COLLEGE CONDUCTED

31,655

TELEHEALTH APPOINTMENTS
(BOTH PHONE AND VIDEOCONFERENCING)

Since March, the following initiatives have been launched:

- Phone encounters for established patients
- Video visits for new and established patients
- Inpatient telehealth visits with affiliate partners
- Telehealth patient and provider help desks
- International teleconsult

Cancer Center Clinical Services Update

As of September 2019, clinical services received through the Dan L Duncan Comprehensive Cancer Center on the 7th floor of the McNair Campus are provided by Baylor St. Luke's Medical Center. The services impacted included: bone and soft tissues sarcomas, breast, gastrointestinal, genitourinary, gynecological, pancreatic, blood disorders, leukemia and lymphoma, melanoma, infusion and mammography imaging services. Baylor physicians continue to provide the care.

New HR Tool Implemented

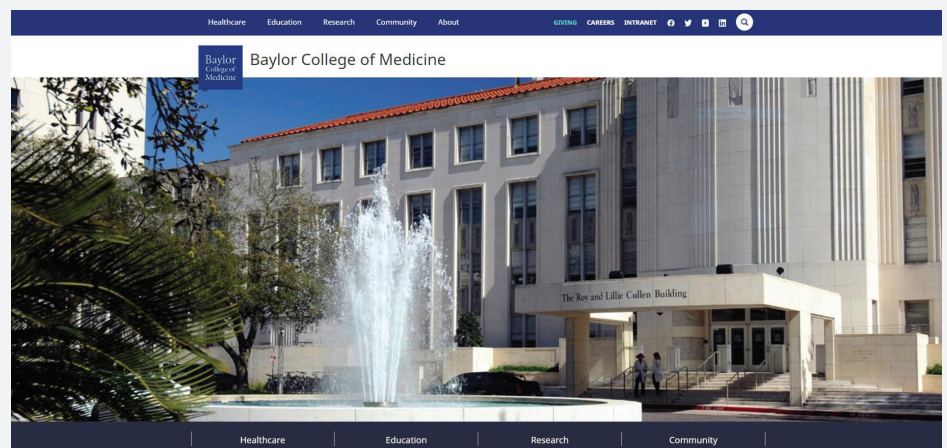
SuccessFactors, the new application for the College's human resources functions, including time management and employee self-service updates, launched in August 2019. It is part of the broader Mosaic project, which was launched with the goal of being more efficient when it comes to the business processes that support Baylor's mission areas.

New Advanced Technology Core: Genetically Engineered Rodent Models (GERM)

The College's new GERM core offers all of the services of the former Mouse Embryonic Stem Cell and Genetically Engineered Mouse cores in a single location. The Advanced Technology Core Laboratories, an essential part of the College's research enterprise, provide state-of-the-art instrumentation and technologies to support research of all Baylor faculty on a fee-for-service basis.

New Website Launch

The new Baylor website went live in May 2020. It provides an attractive design with easy navigation that approaches every page with the user in mind.



White Coats for Black Lives



Students, trainees, healthcare professionals and others from the Baylor community joined with peers from UTHealth, UTMB and other Texas Medical Center institutions for White Coats for Black Lives at the Hermann Park Reflection Pool. The event was organized in response to the death of Houston native George Floyd and to the issues of racism, inequality and injustice that are challenging the country.

A second event, Scientists and Health Professionals for Black Lives, was held in the Texas Medical Center Commons. Speakers from Baylor and other institutions talked about the importance of addressing disparities in healthcare that impact African-Americans and honored George Floyd on the day of his funeral in Houston.

Medical Students Launch Human Rights and Asylum Clinic

Medical students in Physicians for Human Rights, a student chapter of the national organization that facilitates a network of health professionals and clinics to provide evaluations for asylum seekers, launched the Baylor College of Medicine Human Rights and Asylum Clinic in July 2019 to help meet a growing need in the Houston area. The Baylor student-run clinic provides free forensic evaluations for individuals seeking asylum in the U.S. and clients are from all around the globe.



New Partnership Provides Mental Health Resources in Houston Schools

Through a \$4 million grant from the U.S. Substance Abuse and Mental Health Services Administration, Baylor and the City of Houston will collaborate on a project to provide Houston-area students with mental health screenings and resources. The four-year grant for the program, titled Be-Well Be-Connected, will serve at-risk students between the ages of 6 and 17 years old with serious and persistent mental illness. Baylor healthcare teams will provide evidence-based cognitive behavioral intervention for children with bipolar disorder and first-episode psychosis. The direct intensive services will be conducted at the students' homes, alleviating transportation issues for many families. The City Mayor's Office of Education is the program manager of the grant.



Position Papers

In FY19 the College began issuing position papers on health issues to better inform the community.

In FY20, two position papers were announced:

- **Dangers of youth smoking and vaping:** the College called on the public to educate elected officials, policy makers and community leaders on the health risks of tobacco and nicotine product use.
- **Organ donation policy:** the College called for more accountability to increase the rate at which organs are recovered and emphasized the importance of innovative approaches that are crucial to increasing the numbers of living donors.

Media Outreach

Baylor experts work with local, national and international reporters to advise on important health topics and ensure that accurate health information is communicated to the public.

FY20 media hits:

 INTERNATIONAL **10,864**

 UNITED STATES **37,664**



VOLUNTEER TIME OFF (FY 2020)

173

PARTICIPANTS

1,384

HOURS (58 DAYS)

95+

ORGANIZATIONS

68

DEPARTMENTS



U.S. News & World Report Rankings

Baylor remains among the top 25 medical schools in the country.

22nd in RESEARCH INTENSIVE



4th in PRIMARY CARE

BAYLOR COLLEGE OF MEDICINE RANKS IN

THE TOP 15%

of all U.S. medical schools

Graduates

School of Health Professions

Doctor of Nursing Practice - Nurse Anesthesia Program	16 students
Orthotics and Prosthetics Program	24 students
Physician Assistant Program	39 students
Genetic Counseling Program inaugural class	8 students

Graduate School of Biomedical Sciences

Ph.D.	90
Master of Science	11

School of Medicine



▼ BAYLOR IS RANKED NATIONALLY IN FIVE PROGRAMS ▼



The Graduate School remains ranked **26th** in biological sciences

The School of Health Professions remains ranked **2nd** in Doctor of Nursing Practice - Nurse Anesthesia Program and **3rd** in Physician Assistant program



Baylor is ranked **2nd** among **118** medical schools where

STUDENTS HAVE THE LEAST DEBT UPON GRADUATION

Well-Being Index

Committed to the overall well-being of residents and fellows, especially during times of extraordinary challenges and stress, Baylor implemented the Well-Being Index in partnership with MedEd Solutions. The anonymous, validated online self-assessment provides immediate and individualized feedback, tools and resources to support well-being. The project is open to faculty, students and staff.

Xavier/Baylor Partnership

Baylor partnered with Xavier University in Louisiana to invite three qualified Xavier students to participate in a collaborative Medical Track Program that facilitates assured acceptance into the College's School of Medicine. With this partnership, Baylor is committed to increasing the diversity of healthcare professionals to provide the best care to patients across the country.



New Curriculum

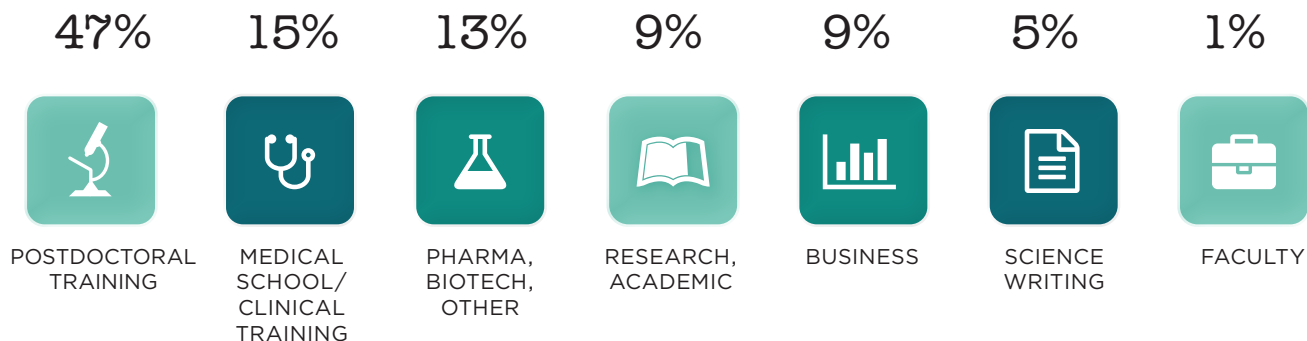
The School of Medicine's curriculum renewal enables learners to become the next generation of leaders in biomedical and health sciences with competencies founded in inquiry, service and innovation to promote health and transform healthcare locally and globally.



GUIDING PRINCIPLES FOR THE CURRICULUM RENEWAL INCLUDE:

- Providing early and longitudinal patient care experiences
- Enabling precision education responsive to the educational needs of students
- Integrating basic, clinical and health systems sciences
- Implementing competency-based assessment and offering frequent feedback
- Incorporating a network of mentorship in the learning environment
- Developing effective leadership and collaboration skills within inter-professional healthcare teams and the community
- Emphasizing commitment to the dignity of patients, health advocacy and social responsibility
- Fostering the appropriate use of technology to improve patient care
- Developing lifelong learners through self-directed learning and a scholarly project
- Fostering an environment to develop faculty and student teachers who enhance their skills and competencies

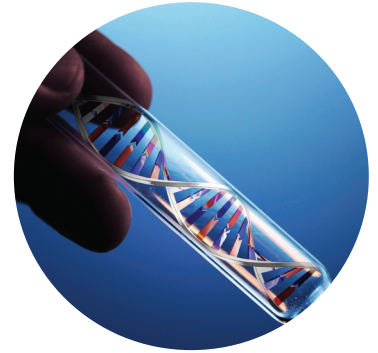
Graduate School of Biomedical Sciences Job Placement



(These data are for graduates from July 1, 2019, to June 30, 2020)

The Cardiovascular Genome Project

The goal of this project is to create a unique, hybrid program that both refines clinical care for cardiovascular disease patients and creates a robust dataset for use in genomic research. Researchers are in the process of completing Phase I of the project, during which they collected close to 700 patient samples and identified actionable gene sets for physicians. The next step is to conduct whole genome sequencing on those 700 cases.



Harris Health Affiliation Agreement

Baylor and Harris Health System approved a 15-year affiliation agreement that ensures that Baylor will continue to provide healthcare services to patients at Ben Taub Hospital and the system's community clinics. The College has been a partner to what eventually became Ben Taub Hospital since 1949. The relationship is important to all areas of Baylor's mission:



Delivering outstanding patient care



Offering the latest in research advances to the residents of Harris County



Providing trainees with highly talented faculty as mentors in the hospital and clinical settings



Advancing community outreach efforts

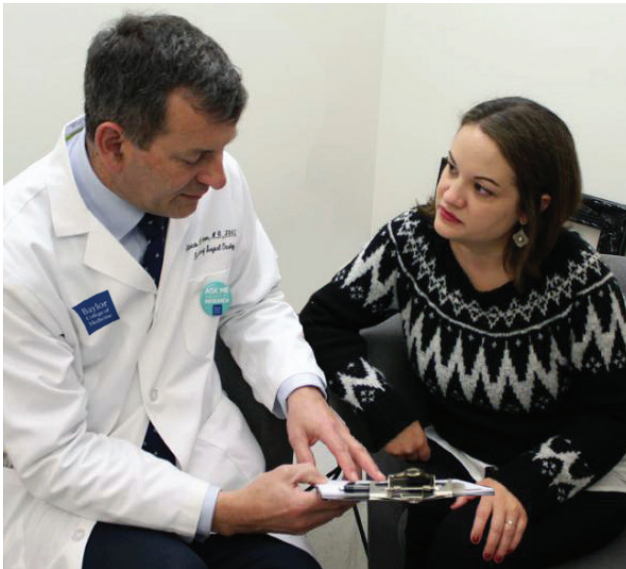


Southeast Geriatric Workforce Enhancement Program

Baylor sections of health services research and geriatrics were awarded a grant from the U.S. Health Resources and Services Administration for the establishment of the Southeast Texas Geriatric Workforce Enhancement Program. It includes a network of health professions schools and community-based organizations to develop a healthcare workforce that maximizes patient and family engagement while improving health outcomes for older adults.

AAMC Group on Women in Medicine and Science

The College launched a Baylor chapter of the Association of American Medical Colleges Group on Women in Medicine and Science and hosted an inaugural event, “Strategies to Advance Your Career.” The group advances successful and full participation of women in academic medicine by addressing gender equity, recruitment and retention, awards and recognition and career advancement.



Baylor Medicine Recognized for Patient Care Strategies

Baylor received a Gold TMF Physician Practice Quality Improvement Award for improving patient outcomes in high-priority clinical areas while applying innovative strategies to advance quality healthcare. The clinical operations team of the College is among 41 healthcare organizations in seven states and the territory of Puerto Rico to receive this award, which is based on four categories of the Center for Medicare and Medicaid Services’ Merit-based Incentive Payment System: Quality Measures, Promoting Interoperability, Improvement Activities and Cost/Utilization. Practices were assessed on clinical outcome measures for the 2018 calendar year.

Baylor, University of Houston Announce Collaborative Grants

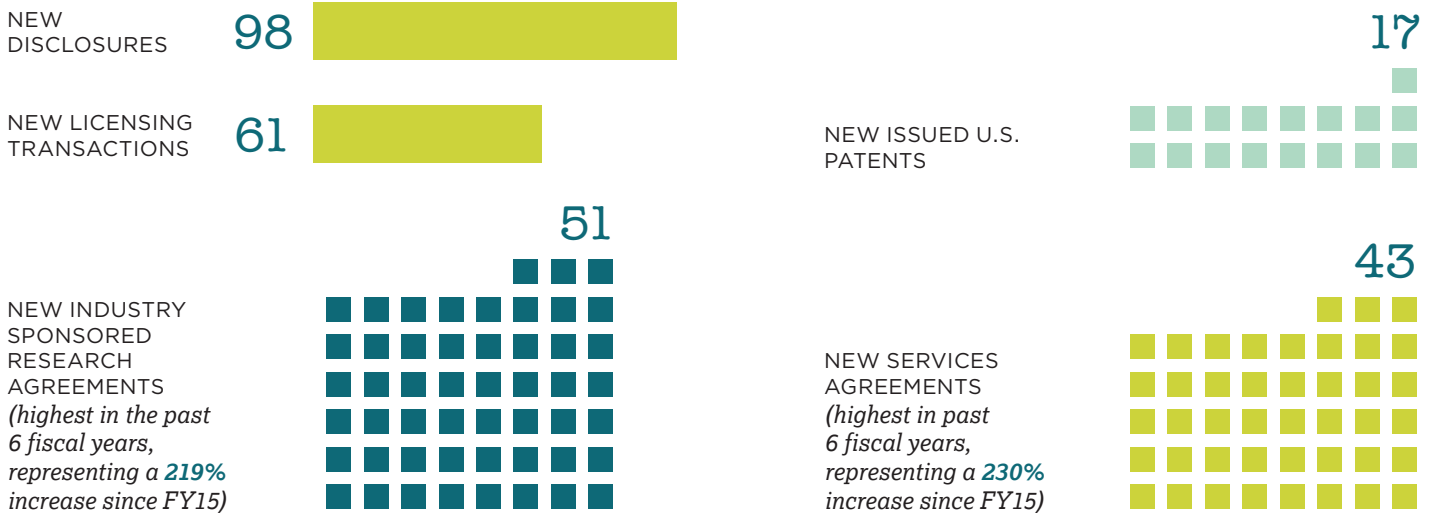
Baylor and the University of Houston teamed up to award grant funding for nine research projects, each with investigators from both schools, as a part of a pilot program resulting from a 2019 Memorandum of Understanding to foster new partnerships and research collaborations. The grants gave awardees \$60,000 over 18 months, with each institution providing half the funding. Winners cover research in a wide variety of subjects, including oncology, cardiology, genetics, biochemistry, virology, pathology, ophthalmology, molecular biology, nutrition and health services.



TRANSLATE

our discoveries into new diagnostics, treatments and cures

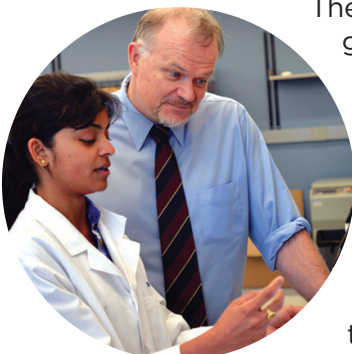
Baylor Licensing Group



Impact to Baylor from Sponsored Research & Services Agreements: FY15-FY20 period:



Building a Roadmap for Collecting, Sequencing Genetic Data



The National Institutes of Health conducted a four-year study to standardize clinical genetic reporting and build a roadmap for the coordination of future efforts in precision medicine. Baylor's Human Genome Sequencing Center was one of two Centralized Sequencing and Genotyping Facilities that took part in the NIH's Electronic Medical Records and Genomics program. The program analyzed the DNA of more than 25,000 participants enrolled through the biobank process. Baylor's HGSC performed the data generation, analysis and clinical data reporting for more than 14,500 of the participants.

Of the 25,000 participants in the study, approximately 200 were confirmed to have a genetic condition that they previously identified when they first enrolled for the testing. However, researchers also identified genetic findings in nearly 1,300 participants that were unrelated to their existing conditions and thus not identified at the time of enrollment. In this study, researchers created new methods for shielding sensitive, personal data and facilitated large-scale data analysis and access to de-identified results.

Breathing Lung Device Opens Door for Expanded Use of Donor Lungs

The TransMedics Organ Care System, or breathing lung device, may make life-saving interventions available to more patients. It enables lungs to be transplanted from extended-criteria donors—organs that would not typically be used because they don't meet certain criteria.

The device is being used in a multicenter, international trial called EXPAND. Researchers from Baylor and other institutions found that of the 79 patients who received an extended donor lung in the trial, 91% were still alive one year after transplant, which is even higher than expected for a standard lung transplant.



Photo courtesy of TransMedics, Inc.

TAILOR Labs

Baylor researchers have implemented an initiative that delivers personalized solutions for antibiotic-resistant bacterial infections. Called TAILOR (Tailored Antibacterials and Innovative Laboratories for phage (Φ) Research), the initiative integrates scientific and medical expertise, technology, innovation and regulatory measures to generate and expedite a bench-to-bedside pipeline that delivers antibacterial viruses — phages — tailored to target specific antibiotic-resistant bacterial infections.

TAILOR follows a four-step process that takes two to four weeks.



STEP 1 CONSULTATION

understand the need



STEP 2 DISCOVERY

phages that target specific antibiotic-resistant bacteria are identified in the lab



STEP 3 CHARACTERIZATION

phage preparations are biochemically defined and certified for human use by following FDA specifications and receiving FDA approval through the compassionate use program



STEP 4 DELIVERY

customers receive phage preparations ready for human use

Rett Syndrome Symposium 20th Anniversary of Genetic Discovery

In 1999, Dr. Huda Zoghbi and colleagues discovered the mutations that cause Rett syndrome, a debilitating neurological disorder that impacts about 1 in 10,000 girls, causing them to experience developmental regression, loss of speech and motor difficulties. A two-day symposium and workshop on Rett syndrome biology was hosted by rettsyndrome.org and Rett Syndrome Research Trust to commemorate the 20th anniversary of this discovery. Physicians, scientists, trainees, patient advocates and leaders from the pharmaceutical industry and National Institutes of Health came together to evaluate and synthesize the knowledge they have gained in the molecular function of the gene and pathogenesis of Rett syndrome.



Partnering for a Healthier Tomorrow

Through a generous gift to the Baylor Global Health program, Baylor trustee Trini Mendenhall is helping in the fight to prevent maternal and infant deaths due to childbirth in the Republic of The Gambia in West Africa. The small nation has one of the highest incidents of maternal mortality in the world. Innovative digital health education and training of local healthcare providers will help many more women and children survive.

She also is supporting Baylor's Center for Cardiometabolic Disease Prevention to provide interdisciplinary training to medical students, fellows and clinicians to help reverse the rising incidence of diabetes, obesity and heart disease in the community. These cardiometabolic diseases and their numerous complications often lead to long-term disability and early death, especially for low-income and minority populations that lack access to adequate healthcare and nutrition.



First Endowed Fund for Discovery Established

Fred Lummis, co-chair of the Baylor Medical Foundation Board and former chair of Baylor's Board of Trustees, established the first endowed Discovery Fund in Baylor's history. The fund provides Baylor a secure source of income for vital research, pilot projects, new educational innovations, the recruitment of outstanding faculty and more. Creating an endowed fund dedicated to priorities as they arise gives Baylor the ability to expedite breakthroughs in the lab, classroom and clinic.

Innovation in Education

To continue the legacy of Dr. Michael E. DeBakey and his values of innovation and excellence, the DeBakey Medical Foundation has made a gift toward construction of the new Health Science Education Center on the McNair Campus. The planned Education Center will bring together Baylor's four schools under one roof — the School of Medicine, the Graduate School of Biomedical Sciences, the School of Health Professions and the National School of Tropical Medicine. The state-of-the-art facility will include active learning technology integrated throughout the building, virtual and augmented reality labs and 70 percent more learning space.

Donor Base 2019-2020

- From all 50 states; **74%** from Texas (2020)

↑226%

NEWLY ACQUIRED DONORS

↑111%

IN DOLLARS COMMITTED

from \$34,102,950 to \$71,886,608

Endowed Funds FY20

- **7** established in 2020
- **23** faculty appointed to endowed positions (**4** new recruits: Kenneth Liao, Ganesh Rao, Ivan Rosas, Erich Sturgis)
- Total Current at Baylor
150 Chairs | **38** Professorships | **18** Fellowships

Active Alumni Donors

- **21,313** (**57** countries, from all 50 states; **45%** Texas)

↑30%

2019-2020



Please register on Alumni Connect to stay connected with Baylor and your fellow alumni: alumni.bcm.edu



Dr. Carolyn Smith Named Dean of Graduate School of Biomedical Sciences

Dr. Carolyn Smith, who served as interim dean of the Graduate School of Biomedical Sciences, has now been named dean of the school. Smith is a professor of molecular and cellular biology whose research focuses on the molecular pharmacology of estrogen receptors, regulation of gene expression by transcriptional coactivators and corepressors, tamoxifen resistance in breast cancer and steroid hormone action in urothelial carcinomas.



Stephanie Young to Lead Institutional Advancement

Stephanie L. Young was named the new senior vice president for Institutional Advancement at Baylor in June 2020. With more than 25 years of experience as a successful healthcare strategist and fundraising executive, Young's diverse background includes academic and hospital fundraising, advising family foundations and philanthropists, building collaborative partnerships, marketing communications, and stakeholder engagement on global and community healthcare initiatives. Young oversees Baylor's philanthropy, alumni affairs, corporate alliances, external relations, special programs and the Baylor Medical Foundation.



Dr. Hugo Bellen Elected to Prestigious Academies

Dr. Hugo J. Bellen, professor of molecular and human genetics and neuroscience at Baylor and Howard Hughes Medical Institute investigator, was elected into the National Academy of Sciences and into the American Academy of Arts and Sciences. Bellen is one of the world's premier researchers in *Drosophila*, or fruit fly, genetics.



David Baldwin Elected Chair of the Baylor Board of Trustees

David Baldwin, co-president of SCF partners, was elected chair of the Baylor College of Medicine Board of Trustees. A member of the Board since 2011, he most recently served as vice chair.



Dr. Mary Dickinson Named Senior Vice President and Dean of Research

Dr. Mary Dickinson was named senior vice president and dean of research at Baylor. She served as associate dean of research for the past two years. She will maintain her research program where she leads the Knockout Mouse Project and studies the genetic and mechanical influences on early cardiovascular development.



Dr. Peggy Goodell Elected to the National Academy of Medicine

Dr. Peggy Goodell, chair of molecular and cellular biology, has been elected into the National Academy of Medicine, considered one of the highest honors in the fields of health and medicine. Goodell is known for discovering a novel method to isolate adult stem cells. She joins 13 Baylor scientists in the National Academy of Medicine.



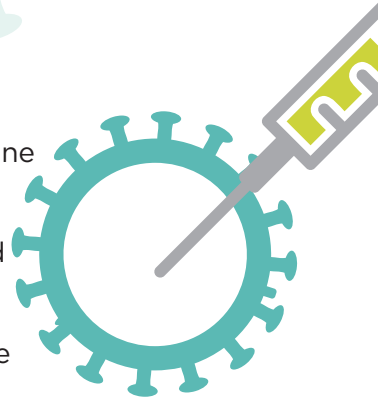
Grant Fuels Study of Superfund Impact on Preterm Births

Baylor recently received a Superfund Research Program grant from the National Institute of Environmental Health Sciences to establish a Multiproject Research Center at the College. The grant of nearly \$10 million over five years will fund researchers to study how toxicity of environmental chemicals emanating from Superfund sites impacts preterm births.



Baylor/Texas Children's Hospital Work on a Vaccine

Dr. Peter Hotez and Dr. Maria Elena Bottazzi with the National School of Tropical Medicine at Baylor and the Center for Vaccine Development at Texas Children's Hospital are developing a vaccine for SARS-CoV-2, the virus causing the COVID-19 pandemic. The experience they gained between 2011 and 2016 developing the SARS vaccine provided them with time-saving strategies and information that may help accelerate the development of a safe and effective COVID-19 vaccine. The vaccine is based on a fragment of a viral protein called the receptor binding domain, which is part of the spike protein the coronavirus uses to attach and infect human cells.



Remdesivir Treatment Trial Conducted

Baylor enrolled participants in a treatment trial for adult patients with a COVID-19 diagnosis who were hospitalized at either Baylor St. Luke's Medical Center or Harris Health System's Ben Taub Hospital. The study evaluated the safety and efficacy of the experimental antiviral drug remdesivir. Participants received placebo or remdesivir intravenously for up to 10 days. Preliminary results showed that in hospitalized patients with COVID-19 pneumonia, remdesivir shortens the time to recovery by four days on average.

Testing Tuberculosis Vaccine for COVID-19

A team of researchers is testing the BCG vaccine, currently used around the world to treat tuberculosis, as a possible protective measure against COVID-19. The vaccine has been proven to help with immune response against other viruses. Baylor researchers are conducting a clinical trial with healthcare workers and first responders to test effectiveness for COVID-19.

Tocilizumab as Possible Treatment for Severe COVID-19 Pneumonia

Baylor is a research site for a clinical trial that is evaluating the safety and therapeutic benefit of the immunomodulator drug Tocilizumab to treat patients who develop severe COVID-19 pneumonia. Tocilizumab has been successful in treating cancer patients, and investigators believe it will have a similar effect on COVID-19 pneumonia.

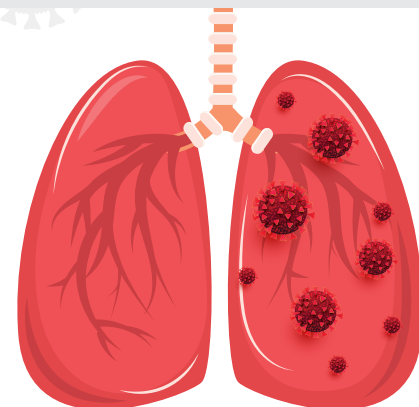


Plasma Study

Baylor and the Gulf Coast Regional Blood Center teamed up to procure COVID-19 convalescent plasma from approved donors and provide it to the most critically ill hospitalized patients with COVID-19 infection. The process involves blood plasma transfusion from recovered coronavirus patients to those who are fighting to survive the disease.

Tobacco Smoking Increases Lung Entry Points for COVID-19

Baylor researchers have identified tobacco smoking as a potential risk factor for COVID-19 infection. They studied the expression of ACE2, the molecule in the respiratory tract that the COVID-19 virus uses to attach to and infect human cells, in the lung tissue of former smokers and nonsmokers. The results showed a 25 percent increase in the expression of ACE2 in former smokers, indicating increased virus entry points and increased risk for viral binding in the lungs of smokers.



Focus on Education

Education leaders at Baylor chartered new territory during the pandemic with the goal of continuing to train the next generation of physicians, healthcare professionals and researchers effectively and without interruption. All schools and programs were able to conduct courses and exams virtually. Other ways each program found to prevent a pause in learning include:

School of Medicine

- Training simulation program via Zoom
- Virtual gross anatomy
- Virtual patient cases
- COVID curriculum

Graduate School of Biomedical Sciences

- Students in COVID labs continued to conduct essential research
- Qualifying exams, thesis advisory committee meetings and dissertation defenses via Zoom

Support for COVID Research

The M.D. Anderson Foundation made a donation to support pioneering work on a test to detect the presence of COVID-19 antibodies. Expanding capabilities in this area is crucial in understanding and containing the virus. The Foundation has been a partner to Baylor for many decades and gave funds for Baylor's move to Houston in 1943. Thanks to the generosity of longtime donors such as the Foundation, Baylor will continue to provide leadership and hope during the coronavirus pandemic. In total, Baylor trustees, faculty, staff, local corporations, foundation and individuals and families contributed more than \$6 million to support Baylor's COVID-19 response and recovery efforts.

School of Health Professions

Physician Assistant Program

- Virtual case-based exercises
- Interactive virtual clinical classes

Doctor of Nursing Practice - Nurse Anesthesia Program

- Virtual simulation
- Clinical rotations continued for third-year students

Orthotics and Prosthetics Program

- Clinical students developed best practices guidelines, took part in two journal clubs per week
- Clinical experts from around the country hosted webinars for students

Genetic Counseling Program

- Interactive student-supervisor case preparation
- Supervised telemedicine encounters



Coronavirus Grant from Health Research and Services Administration

Baylor's Center of Excellence in Health Equity, Training and Research received funding from the Health Research and Services Administration to train students and clinicians on providing telehealth-enabled COVID-19 screening, testing, case management and outpatient care to underserved and vulnerable patient populations. The funding also enables the center to develop, implement and evaluate curriculum for a hybrid of interactive learning experiences using distance learning platforms. The center can provide instruction that is culturally informed and designed to enhance the resilience of the providers, students and trainees.

IN MEMORIAM

Alan J. Garber, M.D., Ph.D.

(1943 - 2020)

The acclaimed endocrinologist contributed to the understanding and treatment of type 2 diabetes. Past president of the American College of Endocrinology, he developed the clinical trials that proved the safety and efficacy of metformin and liraglutide as well as authored national patient guidelines for glycemic control.



J. David Holcomb, Ed.D.

(1941 - 2020)

The founding dean of the School of Health Professions at Baylor nurtured the rise of the Physician Assistant Program from a certificate program to a master's degree program ranked first in Texas and third in the nation. The Orthotics & Prosthetics program was established under his leadership.



Khozema B. Hussain, M.D.

(1966 - 2020)

The gastroenterologist and medical director of the liver transplant program at the Michael E. DeBakey VA Medical Center served veterans and civilians alike in his 20 years of practice. Under his direction, the program became one of the six VA centers of excellence for liver transplantation in the country.



David J. Hyman, M.D.

(1955 - 2020)

The beloved chief of general internal medicine at Ben Taub Hospital cared for the medically underserved people of Harris County for more than three decades. A national leader in hypertension prevention, treatment and research, he mentored generations of physicians through their careers.



J. Hugh Roff, Jr.

(1931 - 2019)

The respected philanthropist and businessman served the College as a trustee and trustee emeritus for more than 30 years. His tenure saw the growth of the research and clinical missions, the evolution of the Texas Medical Center and the construction of the Baylor St. Luke's Medical Center - McNair Campus.



William A. Thomson, Ph.D.

(1947 - 2020)

The founding director of the Center for Educational Outreach, assistant dean of continuing professional development and associate provost of faculty affairs devoted much of his life to developing programs that enhance opportunities for all learners to pursue higher education and careers in science, health professions and medicine.



Mission

Baylor College of Medicine is a health sciences university that creates knowledge and applies science and discoveries to further education, healthcare and community service locally and globally.

Please learn how you can help support our mission areas at: bcm.edu/giving

Vision

Improving health through science, scholarship and innovation.

Values

With input from the Baylor College of Medicine community, supporting goals were written for each of the College's value statements.

Respect

Value others and treat them with courtesy, politeness and kindness
Promote and support diversity, inclusion and equity
Encourage civil dialogue that considers diverse opinions and ideas

Integrity

Interact with honesty, consistency and transparency
Operate in ways that demonstrate ethical behaviors
Foster personal accountability to build trust

Innovation

Cultivate creative ideas and unique talents across the organization
Embrace a culture of continuous improvement
Inspire the creation and application of new knowledge

Teamwork

Sustain a culture that values collaboration
Communicate openly to enhance understanding
Establish effective partnerships

Excellence

Promote the highest standards of safety, quality and service
Strive to excel in every aspect of our mission
Support an environment that inspires the best from our people

Looking for ways to stay connected with the Office of Institutional Advancement? You can find us on our home page, bcm.edu/giving, or visit givebmf.org/donate to make a gift to an area of your choosing. For more information or questions, contact us at connect@bcm.edu or [713.798.4714](tel:713.798.4714).

We also strive to serve our alumni community. To participate in our new alumni engagement platform, please go to alumni.bcm.edu to register on Alumni Connect. Join the conversation on this innovative online portal to stay connected with Baylor and your fellow alumni. Don't forget to follow us on Twitter [@BCM_alumni](https://twitter.com/BCM_alumni) and Facebook [@BCMHoustonalumni](https://facebook.com/BCMHoustonalumni), where we help alumni and students to foster mentorship and remain close to Baylor.

RESPECT

Integrity

INNOVATION

Teamwork

Excellence

Baylor
College of
Medicine

BCM.EDU