REACH YOUR FULL POTENTIAL
Accreditation

Baylor College of Medicine is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award masters and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097 or call (404) 679-4500 for questions about the accreditation of Baylor College of Medicine. The commission should be contacted only if there is evidence that appears to support Baylor's significant non-compliance with a requirement or standard.

Public Safety

The Texas Medical Center Police/Security Department provides the medical center campus with security patrol. Baylor College of Medicine's Security Office is responsible for security within BCM. In accordance with the Jeanne Clery Disclosure of Campus Policy and Campus Crime Statistics Act (Clery Act), BCM issues an Annual Security Report which reflects campus crime statistics, policies, and safety information. All prospective students, faculty, or staff may view this report online at https://www.bcm.edu/about-us/our-campus/compliance/crime-reporting or by contacting a BCM security administrator at 713-798-3000.

Baylor College of Medicine Diversity and Inclusion Policy

Baylor College of Medicine fosters diversity among its students, trainees, faculty, and staff as a prerequisite to accomplishing our institutional mission, and setting standards for excellence in training healthcare providers and biomedical scientists, innovation, and providing patient-centered care.

Diversity, respect, and inclusiveness create an environment that is conducive to academic excellence, and strengthens our institution by increasing talent, encouraging creativity, and ensuring a broader perspective.

Diversity helps position Baylor to reduce disparities in health and healthcare access and to better address the needs of the community we serve.

Baylor is committed to recruiting and retaining outstanding students, trainees, faculty and staff from diverse backgrounds by providing a welcoming, supportive learning environment for all members of the Baylor community.

Notice of Nondiscrimination

Baylor College of Medicine is committed to a safe and supportive learning and working environment for its learners, faculty and staff. College policy prohibits discrimination on the basis of race, color, age, religion, gender, gender identity or expression, sexual orientation, national origin, veteran status, disability or genetic information. Harassment based on any of these classifications is a form of discrimination and also violates College policy (02.2.25, 02.2.26) and will not be tolerated. In some circumstances, such discriminatory harassment also may violate federal, state or local law.
BY THE NUMBERS

**FACTS**

- **>$500M**
  - Total research funding
- **21st**
  - Rank in NIH funding to medical schools
- **7**
  - Top 10 departments in NIH funding
- **1st**
  - In U.S. in non-NIH federal funding
- **>1 MILLION**
  - Square feet of basic science and computational research space on main campus
- **250,000**
  - Square feet of basic and clinical research space throughout Texas Medical Center occupied by BCM faculty and staff
- **9**
  - Members of the National Academy of Sciences
- **13**
  - Members of the National Academy of Medicine
- **14**
  - Fellows of the American Association for the Advancement of Science
- **45**
  - National Career Development Awards

**STUDENTS**

- **613**
  - Number of students
- **409**
  - Domestic
  - (After the state of Texas the largest groups are from California and New York)
- **204**
  - International
  - (After the U.S. the largest groups are from China, India, and Taiwan)
- **301**
  - Male
- **312**
  - Female
- **75**
  - Underrepresented in sciences

**BCM AVERAGE TIME TO DEGREE**

- **6 YEARS**
Many students begin a Ph.D. program envisioning a lifetime spent in an academic lab. For a growing number of Ph.D. graduates, career ambitions lie along alternative pathways in business, industry, consulting, law and more.

Wherever your ambition leads, we will help you reach your goal. You will be following a path well worn by BCM alumni who have built successful careers across diverse endeavors.

Baylor opened up my world to what is possible in terms of everything I wanted to do scientifically and academically. If you find a job you love you never have to work a day in your life.

* This data is for graduates from January 2018 through July 2018. Data was unavailable for 4% of graduates.
My thesis advisor told me when I graduated, you have learned about a specific process, but more importantly you have learned how to learn. That has served me enormously throughout my career in that I know I can take a technical article in any discipline and read it and understand it.
IMPACTFUL RESEARCH

The *Nature 2017 Innovation Index* ranked 200 leading global research institutions for their influence on industry and innovation. BCM was listed 12th in the world. In the Reuters list of Top 100 most innovative universities in the world, BCM was praised for its biotech and pharmaceutical patents. The College is the highest ranked free-standing biomedical institution in the nation in terms of research expenditures according to the most recent (2016) survey by the National Science Foundation.

I first became interested in doing biomedical research when I was an undergraduate and did an internship at BCM. I thought it was really interesting that you could make a career of thinking and making discoveries in order to help humankind. That is why I decided to go to graduate school at BCM.
This is a picture of one of the many fruit fly brains in which an insertion of transcription factor GAL4 in a specific gene drives bright expression of a green fluorescent protein construct. The lab of Dr. Hugo Bellen has developed and made available a large versatile library of fruit flies that can be used to perform efficient and elegant in vivo gene-specific manipulations using the new protocol and gene-specific integration vector CRIMIC (CRISPR-Mediated Integrated Cassette).

In her lab, Dr. Mary Estes and colleagues are interested in the healing of intestinal injuries caused by rotavirus infection. This is a 3-D graphical representation of rotavirus virions. The characteristic wheel-like appearance under the electron microscope gives rotavirus its name from the Latin 'rota,' meaning 'wheel.'

Drs. JoAnn Richards, Achuth Padmanabhan, and their colleagues are exploring new ways to fight ovarian cancer. The image shows cytoplasmic distribution of p53-R175H mutant protein (green) in TYK-Nu ovarian cancer cells that have been treated with the drug MCB-613. Nucleus of cells is shown in blue.

A hundred years of achievement in biomedical research, exceptional scientists and trainees, and a resource-rich research enterprise create an exceptional environment for basic, clinical and translational research. A few examples of recent findings are highlighted here.

DISCOVER THE LATEST RESEARCH ADVANCES FROM BAYLOR COLLEGE OF MEDICINE.
FOLLOW OUR RESEARCH BLOG AT https://fromthelabs.bcm.edu

My training at BCM was translational and revolutionary. I was able to see firsthand in the clinic how experiments that I was running on the bench were directly translated to the bedside.
Advanced technology core laboratories provide state-of-the-art instrumentation and technologies, as well as consultation on experimental design, data analysis and training. Through the cores, students not only gain access to tools and techniques that support cutting-edge research, they also receive training and mentorship in how to leverage these tools to develop innovative approaches to scientific challenges.

As a student of the Baylor College of Medicine Graduate School of Biomedical Sciences, you will leverage the resources from one of the nation’s preeminent research institutions in the world’s largest medical complex. Exceptional facilities available at BCM include:

- Advanced MR Imaging
- Antibody-Based Proteomics
- Bioengineering
- Biostatistics & Informatics
- Cell-Based Assay Screening
- Cytometry & Cell Sorting
- Cryo EM
- Gene Vector
- Genetically Engineered Mouse
- Genomic & RNA Profiling
- Human Stem Cell
- Human Tissue Acquisition & Pathology
- Integrated Microscopy
- Mass Spectrometry Proteomics
- Metabolomics
- MHC Tetramer
- Mouse Embryonic Stem Cell
- Mouse Metabolic and Phenotyping
- NMR and Drug Metabolism
- Optical Imaging & Vital Microscopy
- Patient Derived Xenograft & Advanced In Vivo Models
- Population Biosciences Biorepository
- Protein & Monoclonal Antibody Production
- RNA In Situ Hybridization
- Single Cell Genomics
- Small Animal MRI

A. 3-D reconstruction of a natural killer cell. This image highlights the abundance of actin branches and uses false colors to represent the height of the structures.

B. Immunofluorescence staining of porcine cardiac fibroblasts that were transduced with lentivirus co-expressing GFP and co-cultured with mouse cardiomyocytes.

C. Browser representation of mCG density in the adult mouse brain (black). Shown are ChIP-seq profiles for MeCP2, a methyl-CpG binding protein, from pluripotent ES cells (green), adult mouse brain (blue) and adult mouse hypothalamus (red).
After earning my Ph.D. from BCM, I chose to stay here because the resources available to pursue my interests were unparalleled. I realized that by choosing to stay I would be taking the right step forward in my career in a very supportive environment.

COLLABORATIVE RESEARCH CENTERS

Collaborative research centers create dynamic communities in which faculty and students engage across traditional scientific divides. Center-organized seminars and workshops are open to all graduate students, providing opportunities to learn with leading experts from BCM, the Texas Medical Center and around the world.

BCM RESEARCH CENTERS INCLUDE:

- Alkek Center for Metagenomics and Microbiome Research
- Cardiovascular Research Institute
- Center for Drug Discovery
- Center for Cell and Gene Therapy
- Center for Precision Environmental Health
- Dan L Duncan Comprehensive Cancer Center
- Dan L Duncan Institute for Clinical and Translational Research
- Huffington Center on Aging
- Human Genome Sequencing Center
- Stem Cells and Regenerative Medicine Center
- The Computational and Integrative Biomedical Research Center

FOR MORE INFORMATION ON RESEARCH RESOURCES VISIT www.bcm.edu/research
FLEXIBILITY TO MEET YOUR GOALS

Enrolling in the BCM Graduate School of Biomedical Sciences opens doors to educational opportunities both within the College and with other outstanding institutions. We encourage students to customize their training to fit their individual career goals. You may choose to gain teaching experience, complete internships, work with young students, take courses at other institutions or take advantage of other opportunities at the College.

CROSS-CUTTING CURRICULUM

While it remains critical for Ph.D. students to gain deep knowledge of their specific field of specialization, this is no longer sufficient. Today’s research requires that scientists expand their skill sets. To meet this challenge, BCM is redefining curriculum needs across all programs. Students will gain knowledge skills in a variety of areas including human subjects research, ethics, rigor, leadership, mentoring, time management, teamwork and more.

MARISSA SCAVUCCO
GRADUATE STUDENT

We of course have great classes that teach us about science and everything you need to know to be a great scientist. But, one of the strengths of BCM that puts it above anywhere else is how much emphasis there is on learning to present well and write well.

STUDENTS HAVE MANY OPPORTUNITIES TO PRESENT THEIR WORK AT ON-CAMPUS EVENTS AS WELL AS AT LOCAL, NATIONAL AND INTERNATIONAL SCIENTIFIC MEETINGS.
INDIVIDUAL DEVELOPMENT PLAN
Every graduate student has an Individual Development Plan (IDP). The IDP enables each of our trainees to identify professional goals that match their interests and values for the purpose of developing appropriate career-specific skills. The creation and regular review of the IDP encourages discussions between students and mentors about career goals early in the training process and implements a course of action to achieve these goals.

TEAM LAUNCH: TEAMWORK SKILLS FOR CAREER SUCCESS
BCM’s unique Team Launch program provides innovative, interdisciplinary opportunities that will prepare you for the full range of careers open to individuals with a Ph.D. in biomedical sciences. Through three interrelated courses, you will have the opportunity to learn effective teamwork skills and implement these skills through working on real-world problems.

“Science is a collective endeavor and cannot be advanced alone. It is not enough to just be smart. You need to have teamwork skills to help you really stand out.”

AS PART OF TEAM LAUNCH INTERDISCIPLINARY TEAMS OF STUDENTS DEVELOP AND PRESENT PROPOSALS TO ADDRESS REAL-WORLD PROBLEMSPOSED BY FACULTY MEMBERS.

SANJANA MAHAPATRA
STUDENT AND TEAM LAUNCH PARTICIPANT
LOCATION, LOCATION, LOCATION

When selecting where to pursue your doctoral degree, you are choosing your professional and personal home for the next several years. As with any home, location is the key. Baylor College of Medicine's location is ideal for anyone wishing to pursue a career in biomedical sciences while maintaining a high quality of life.

A LEADING HEALTH SCIENCES UNIVERSITY

BCM is home to researchers, clinicians and educators dedicated to improving lives for individuals and communities locally and globally. The healthcare, education and research programs of BCM consistently rank among the best in the nation. The College's students and faculty receive prestigious awards and honors for their contributions.

BCM fosters diversity among its students, trainees, faculty and staff. In the AAMC Diversity Engagement Survey, BCM’s community ranked in the top third among institutions for having an inclusive environment.

"Houston has one of the largest numbers of diverse activities to pursue of any city. I have enjoyed going to city parks, the theater, professional sporting events, historical sites, the symphony, camping, food trucks, dance performances and more, much of it presented free at Hermann Park next to the medical center. All of this is available in the cost-friendliest top 10 city in the United States."

THE WORLD’S LARGEST MEDICAL COMPLEX

Along with BCM, many of the top-ranked research and clinical institutions in the nation are members of the Texas Medical Center, including:

- Baylor St. Luke's Medical Center
- MD Anderson Cancer Center (the world’s largest cancer hospital)
- Rice University
- Texas Children’s Hospital (the world’s largest children’s hospital)
- Texas Heart Institute

The exceptional size and scope of the TMC biomedical research community creates unique opportunities to leverage resources as well as the talents and experience of faculty, staff and students. The culture and environment of a large medical center provide students with opportunities to obtain education and practical experience in both basic and applied research.
THE CITY OF HOUSTON

We’ve discovered that many people who have never been to Houston have some preconceived notions about the city that are, well, just plain wrong.

HOUSTON FACTS & FIGURES

1st
AMONG NATION’S 10 MOST POPULOUS CITIES IN TOTAL ACREAGE OF PARK LAND

2nd
LARGEST CONCENTRATION OF FORTUNE 500 COMPANIES IN THE U.S.

4th
LARGEST CITY IN U.S.: 2.3 MILLION RESIDENTS

23%
BELOW THE AVERAGE COST OF LIVING IN THE 20 MOST POPULOUS U.S. CITIES

60
DEGREE GRANTING COLLEGE, UNIVERSITIES AND TECHNICAL SCHOOLS

145+
LANGUAGES SPOKEN

500+
INSTITUTIONS DEVOTED TO PERFORMING AND VISUAL ARTS, HISTORY AND SCIENCE

WANDERSON REZENDE, GRADUATE STUDENT

I went from Brazil to Washington, D.C., and from Washington to Texas. Because of the southern hospitality, the way people treat you, how open things are, and how diverse Houston is, it was a fairly easy transition. I love this place!

PLENITY OF OPTIONS TO OCCUPY YOUR FREE TIME:

• Professional, collegiate, and recreational sports leagues
• Theater, ballet, concerts, opera, and museums
• Nightlife options around town
• Shopping galore
• 350 parks; 95 miles of nature, hiking, and bike trails; and three state parks nearby
• More than 10,000 restaurants representing 70 countries and U.S. regions
• Water recreation within a short drive (Galveston beaches, Clear Lake, Lake Conroe, and Lake Livingston)

BOTTOM LINE: IT’S A GREAT PLACE TO LIVE, LEARN, WORK, PLAY, AND RAISE A FAMILY.

TMC FACTS

50 million
DEVELOPED SQUARE FEET

8th
LARGEST BUSINESS DISTRICT IN THE U.S.

10 million
PATIENT VISITS PER YEAR

180,000+
SURGERIES ANNUALLY

$3 billion
IN CONSTRUCTION PROJECTS IN PROGRESS

106,000+
EMPLOYEES
Student success resources at BCM are designed to help you successfully navigate through your education and into the workforce.

CAREER DEVELOPMENT CENTER
Our Career Development Center works with students at every stage of their education to help them explore options and learn about different career paths. Through affiliations and connections with institutions and companies throughout the Houston area and beyond, the center staff, as well as faculty and leadership at BCM, help students find opportunities to gain experience and build connections that match their career interests.

Learn more at bcm.edu/careerdevelopment

HEALTH & WELLNESS
Taking care of yourself is a prerequisite for success in school and beyond. At BCM you will have many options to participate in individualized or group wellness programs, activities and events run by the Graduate School, the College, and the Texas Medical Center as well as organizations throughout Houston.

For a full listing of Student Wellness services, visit bcm.edu/student-wellness
ACADEMIC EXCELLENCE
If you need help with a specific course, accommodations for a disability, veteran’s affairs services, counseling or assistance finding resources in the Texas Medical Center library, a wide-range of services are available to you at BCM.

For a full listing of Student Success Resources visit bcm.edu/student-services

NETWORKING & STUDENT ENGAGEMENT
As a BCM student you will have the opportunity to participate in and lead committees within the graduate school and at the College level to enhance your leadership skills and have a voice in shaping College policies. Diverse student-led organizations provide opportunities for you to network and build social connections with students who share your professional and extracurricular interests.

FIRST-YEAR INITIATIVE
Run by graduates students for graduate students, the First-Year Initiative helps new students transition into and thrive in graduate school by providing a peer-mediated support network. Orientation and social events help students become familiar with the campus and Houston. These events also help new students begin to build their support network as they meet fellow students who are just starting out as well as those further along in their education. Graduate students serve as mentors to new students, reaching out to them throughout their first year to answer questions about school or life in general.

"BCM has meant a lot to me. It molded me professionally, developing my skills as a student initially, but more importantly, I think, it has developed me as a person under the mentorship of some outstanding individuals."

SEAN MCGUIRE, M.D., PH.D.
ALUMNUS
ASSISTANT PROFESSOR, BCM
I chose Baylor College of Medicine because it offers a combination of opportunity and affordability that is unmatched by other options for my graduate training. The collaborative culture was also one of the key attributes that drove me to choose BCM. My colleagues and I have ongoing projects with labs from across the hall to around the world. These relationships are essential for networking and exploring future opportunities in ways that would not be possible without support of collaborative efforts at all levels of the institution.

* Baylor College of Medicine reserves the right to increase, decrease or alter benefits. Up-to-date information on benefits is provided at www.bcm.edu/gradschool.
A
dmis
sions

We look at every applicant as a whole person, not a collection of statistics. We search out students who are pursuing science because their interest in it is so strong that they cannot imagine doing anything else.

Of course we look at your GPA. But, these are not the primary factors we value in our students. So what are we looking for?

<table>
<thead>
<tr>
<th>Research Experience</th>
<th>Commitment</th>
</tr>
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<tbody>
<tr>
<td>Motivation</td>
<td>Diversity</td>
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Applicants are encouraged to select both a first- and second-choice program. If the first program you list is unable to accept your application, it will automatically be sent to the second for consideration.

I had a really positive interview experience. I met with a lot of faculty members. What stood out to me was not only were they outstanding scientists, but they were also friendly, approachable and they had a strong sense of collaboration amongst themselves and with researchers at other institutions.

**IMPORTANT DATES**

**SEPT. 1** ............... **FREE APPLICATION SYSTEM OPENS.**

**JAN. 1** ................. **APPLICATION DEADLINE.** Applications received by **Dec. 1** will be considered for early review and are strongly encouraged. Late applications will be considered on a space-available basis.

**JAN./FEB.** ............. **INTERVIEWS ARE HELD BY INDIVIDUAL PROGRAMS.**

**FEB./MARCH/APRIL** .... **ADMISSION OFFERS ARE EXTENDED.**

**APRIL 15** ............. **FINAL DECISIONS BY STUDENTS TO ACCEPT AN OFFER.**

TO BEGIN YOUR APPLICATION, VISIT  

https://www.bcm.edu/gsbs/admissions
FIND YOUR FIT

With more than 600 STUDENTS and 540 FACULTY MEMBERS, you will have a diverse group of potential colleagues, mentors and advisors at Baylor College of Medicine Graduate School of Biomedical Sciences.

But, no need to worry that you will be lost in the crowd. Our graduate programs provide each student a smaller community within the whole. While strongly grounded in BCM’s collaborative, innovative culture, each interdisciplinary program has its own personality and unique offerings.

DIVERSE PERSPECTIVES

Interdisciplinary programs integrate related research across basic science and clinical departments and academic centers. Our faculty members have the freedom to select the programs that align with their research. Rather than be bound by the department or center into which they were hired, faculty opt into participation in graduate programs that align with their research interests. This ensures that you will interact with faculty who bring diverse backgrounds, perspectives and experience to your chosen field of study.

FLEXIBILITY TO PURSUE YOUR PASSIONS

Your program will provide a home base, setting your required coursework and qualification requirements and providing a network of faculty and students who share your interests. However, when selecting laboratories in which to rotate, and ultimately the one in which you will pursue your dissertation research, all the resources of BCM are open to you. You have the freedom to find your home in the laboratory of any member of the graduate faculty.

“I plan to become a board-certified laboratory geneticist. We have such a great genetics community, both clinical and research based. More than that, so many of the faculty truly wish to help students develop to be productive...”

MICHAEL DAVID FOUNTAIN, JR., PH.D.
RECENT GRADUATE
members of the research community, rather than just pushing you to finish whatever work it is you’re doing. They truly cared about my future plans and asked questions that directed me toward my end goals.

Rather than treating translational science as a separate discipline, it is integral to what we do. Therefore, students in every program have a multitude of opportunities to obtain the expertise required to take scientific discovery from the lab through to clinical trials so as to ultimately benefit patient care and clinical practice.

TRANSLATIONAL SCIENCE
In the Texas Medical Center there are countless opportunities to bridge the boundary separating research and clinical care. Basic, translational and clinical researchers share buildings with clinical care providers and labs are mere steps away from clinics and hospitals. Whether working at the molecular, cellular or organismal level, BCM scientists maintain perspective on how their work may impact human health.
Our program provides broad, interdisciplinary training in the fundamentals of normal cell function and cancer, using state-of-the-art approaches to understand cancer cell growth, invasion and metastasis. BCM researchers have a prestigious record of achievement in advancing understanding of:

- gene regulation
- hormone action and cell signaling
- genomics, proteomics and metabolomics
- cancer-related immune therapies
- reproductive medicine

Most faculty in our program are members of BCM’s National Cancer Institute-designated comprehensive cancer center, the Dan L Duncan Comprehensive Cancer Center. Many are also members of the BCM Department of Molecular and Cellular Biology, which is ranked in the top five in the country for National Institute of Health funding. Multidisciplinary centers focused on cell and gene therapy, stem cell and regeneration and aging enhance the highly collaborative environment.

We have incorporated the best elements of traditional graduate programs—academic rigor and stellar faculty—with flexibility for intensive academic training in small group formats while providing you the freedom and support necessary to design an individualized curriculum. We will provide you with the skills you need to break barriers in cancer and cell biology.
CHEMICAL, PHYSICAL & STRUCTURAL BIOLOGY

We develop new technologies and innovative methods and apply them to achieve a deeper understanding of the chemical, physical and structural basis of fundamental biology and human disease. As a graduate of our program, you will be equipped with the cutting-edge technologies and depth of knowledge required to investigate emerging fundamental and disease-associated questions in biology.

Our research addresses a wide range of medical problems, from cancer to infectious disease, through the investigation of subjects such as:

• gene regulation and dysregulation
• macromolecular structure, function and interactions
• biomembranes
• post-translational modifications
• drug actions
• drug-resistance mechanisms
• the development of chemical probes for potential clinical applications and novel drugs for therapeutic interventions

Our program provides you with multidisciplinary training opportunities including biophysical and biochemical analysis of proteins, biochemistry, pharmacology, chemical synthesis, combinatorial chemistry, structural biology, and protein design and engineering. BCM resources available to our students include state-of-the-art technology for X-ray crystallography, cryo-electron microscopy, NMR, mass spectrometry, single molecule fluorescence and super resolution microscopy, biochemical and biophysical and computational analysis of macromolecules, combinatorial library generation and high-throughput screening.

DEVELOPMENT, DISEASE MODELS & THERAPEUTICS

Human disease can impact all stages of life—from hereditary and congenital birth defects to the degenerative diseases of old age. Using diverse techniques and animal models, our faculty and students investigate questions related to:

• development
• disease
• degeneration
• normal tissue function and regulation
• organ system dysfunction

Our researchers use models to understand human development and diseases, and to develop diagnostics and therapies to treat them.

We use cutting-edge tools in molecular biology, genetics, biological imaging and stem cell biology to pursue these goals, and take advantage of our location in the Texas Medical Center to connect basic researchers with clinicians. We have a strong focus in developmental biology, stem cells and regenerative medicine, but also emphasize an understanding of how tissue and organ systems function in the adult.

All of our students require a strong foundation in biomedical sciences. Beyond this, the specific areas of knowledge and skills you will need to acquire will vary depending on your own specific area of focus. You will have the flexibility and support to customize your course of study to ensure you gain the knowledge and skills you require to succeed.
Deepening our understanding of the interactions between microbes, their hosts, and the host immune system is critical to develop treatments for diseases and improve human health. Our program links scientists from across the College to foster innovative research in microbiology and immunology and cross-disciplinary scholarship and teaching.

Our faculty members have research interests that span diverse aspects of basic, translational, and clinical immunology and microbiology. This broad spectrum of topics provides our students rich opportunities for collaborative and interdisciplinary thesis projects at the cutting-edge of these fields. Within our program, research interests of the faculty are aligned under nine thematic areas:

- antibiotics, antivirals, and drug resistance
- autoimmune and inflammatory diseases
- host-microbe interactions and pathogenesis
- immune system development, metabolism, and function
- immunotherapy, gene therapy, and vaccine development
- mechanisms of viral replication
- microbial macromolecular structure and function
- microbiome in health and disease
- molecular and viral carcinogenesis and cancer immunology

You will receive a personalized, inquiry-based education and actively acquire a sophisticated understanding of basic and translational immunology and microbiology problems and state-of-the-art techniques. We also emphasize the development of critical thinking, creativity, and problem-solving skills necessary for diverse scientific careers.
Our program will provide you with a strong foundation in modern neuroscience while encouraging you to think deeply about your specialized area of dissertation research. Areas of research pursued by our faculty and students include:

- Information processing in visual, auditory, and vestibular systems
- Neural mechanisms of higher nervous system functions, including perception, learning, memory, attention and decision making
- Development and regeneration in the central and peripheral nervous system
- Development of new technologies to record and control neural activity, including functional magnetic neuroimaging, transcranial magnetic stimulation, and two-photon microscopy

Coursework exposes you to the multidisciplinary nature of this field, covering molecular genetics, cellular biology, electrophysiology, biophysics, behavior, and computation.

More than 65 program faculty drawn from both basic science and clinical departments participate in neuroscience training at BCM. Our state-of-the-art resources include the Core for Advanced Magnetic Resonance Imaging, the Memory and Brain Research Center, the Center for Neuroscience and Artificial Intelligence and the Bioengineering Core. The program is well supported financially, with BCM ranking among the top five in the nation for neuroscience funding from the National Institutes of Health.

It is widely anticipated that quantitative modeling, advanced computing and data science will transform the biomedical research enterprise and practice of medicine in the coming decades as fundamentally as biochemistry and molecular biology transformed it during the past century. To discover new biomedical knowledge at this emerging frontier of science, our program brings together students and faculty from a variety of computational, physical, chemical, mathematical, statistical and engineering backgrounds.

Our full-time faculty are drawn from members of basic and clinical science departments from six institutions:

- Baylor College of Medicine
- Rice University
- University of Houston
- University of Texas Health Science Center
- University of Texas Medical Branch at Galveston
- and University of Texas MD Anderson Cancer Center

As a student, you will be able to take classes and work in any of our institutions. Through our membership in the Keck Center of the Gulf Coast Consortia, students have numerous options for funding, including multiple training grants overseen by the Keck Center.
DIVERSITY AND INCLUSION

We view fostering diversity and inclusion as a prerequisite to accomplishing our institutional mission and promoting scientific innovation. We are committed to recruiting students from diverse backgrounds and providing a welcoming, supportive learning environment for all members of our community.

Through the NIH Initiative for Maximizing Student Development (IMSD), BCM has received funding since 1998 to educate and train scientists from populations that have been traditionally underrepresented in the sciences. The IMSD at BCM offers comprehensive, individualized education, including a summer bridge program that provides individualized support for success, monthly Association of Graduate Student Diversity activities, an underrepresented scientist seminar series, and skills-building workshops to help you thrive, not just survive, as a scientist. There are currently 75 underrepresented students in Ph.D and M.D./Ph.D. programs at BCM, as well as more than 120 Ph.D. and M.D./Ph.D. alumni. Our alumni have jobs in academia, industry, and other biomedical fields across the country.

Through undergraduate programs and post-baccalaureate programs, BCM reaches out to students across the country to encourage individuals from groups underrepresented in science to pursue science as a career. The Summer Medical and Research Training (SMART) program and BCM PREP program provide opportunities for research-oriented individuals to gain valuable experiences in biomedical research in a supportive environment with supplemental educational activities. The Institutional Research and Academic Career Development Award (IRACDA) program is a combination of a traditional mentored postdoctoral research experience and an opportunity to develop teaching skills through mentored assignments at a minority-serving institution. The IRACDA program motivates the next generation of scientists at minority-serving institutions. Through inclusion of underrepresented postdoctoral fellows when possible, IRACDA provides excellent role models for undergraduates.

LEARN MORE AT www.bcm.edu/diversityprograms

I’ve been involved in Saturday Morning Science, a program aimed at inner city middle and high school students who are interested in science and medicine. Being a mentor is leadership training.

JESSICA SCOTT, GRADUATE STUDENT
“Wow! Everyone here is really intense.” We hear this pretty frequently from prospective students. It is true. Our faculty, staff, and students work hard. They talk about their work with passion. But, our intensity is not limited to the laboratory and work.

We have similar intensity about other facets of our lives as well. Whether raising a family, honing musical or artistic talents, competing in sports, or leading community service initiatives, all your interests and commitments that make you a better human being, also make you a better scientist.

"The Graduate Student Council plans social events throughout the year.

BCM students and faculty join together in support of causes, such as the March for Science.

Life Beyond the Laboratory

It has been very rewarding to see ideas sponsored by the Graduate Student Council result in positive changes for students. More than anything else, I think serving on the Graduate Student Council has taught me to be organized and efficient with my time and the time of those working with me. I believe those skills will be critical as I progress in my scientific career.
ABOUT BAYLOR COLLEGE OF 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.

VISION
Improving health through science, scholarship and innovation.

VALUES
Respect
Integrity
Innovation
Teamwork
Excellence

BCM SCHOOLS
In addition to the Graduate School of Biomedical Sciences, Baylor College of Medicine includes:

SCHOOL OF MEDICINE:
Ranked 16th for research and 5th for primary care by *U.S. News & World Report*, Baylor College of Medicine's School of Medicine is the least expensive private medical school in the U.S. Exceptionally diverse clinical affiliates set BCM apart as a leader among the world's best medical schools.

Many clinician-scientists within the School of Medicine also serve on the faculty of the graduate school, bridging the clinic and the laboratory to provide graduate students with a clear perspective of the impact of their research on health.

SCHOOL OF HEALTH PROFESSIONS:
At BCM, health professions education include genetic counseling, nurse anesthesia, physician assistant, and orthotics and prosthetics.

The Doctor of Nursing Practice-Nurse Anesthesia program is ranked second in the nation and the Physician Assistant Program is ranked 13th in the nation by *U.S. News & World Report*.

NATIONAL SCHOOL OF TROPICAL MEDICINE:
Baylor is home to one of the first-of-its-kind schools in North America devoted to the neglected diseases that disproportionately afflict “the bottom billion,” the world’s poorest people.

Researchers from Tropical Medicine also serve on the faculty of the graduate school, through which students can conduct research on neglected tropical diseases.

Baylor College of Medicine is also co-owner of Baylor St. Luke's Medical Center and Baylor Genetics.
Accreditation
Baylor College of Medicine is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award masters and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097 or call (404) 679-4500 for questions about the accreditation of Baylor College of Medicine. The commission should be contacted only if there is evidence that appears to support Baylor’s significant non-compliance with a requirement or standard.

Public Safety
The Texas Medical Center Police/Security Department provides the medical center campus with security patrol. Baylor College of Medicine’s Security Office is responsible for security within BCM. In accordance with the Jeanne Clery Disclosure of Campus Policy and Campus Crime Statistics Act (Clery Act), BCM issues an Annual Security Report which reflects campus crime statistics, policies, and safety information. All prospective students, faculty, or staff may view this report online at https://www.bcm.edu/about-us/our-campus/compliance/crime-reporting or by contacting a BCM security administrator at 713-798-3000.

Baylor College of Medicine Diversity and Inclusion Policy
Baylor College of Medicine fosters diversity among its students, trainees, faculty, and staff as a prerequisite to accomplishing our institutional mission, and setting standards for excellence in training healthcare providers and biomedical scientists, innovation, and providing patient-centered care.
- Diversity, respect, and inclusiveness create an environment that is conducive to academic excellence, and strengthens our institution by increasing talent, encouraging creativity, and ensuring a broader perspective.
- Diversity helps position Baylor to reduce disparities in health and healthcare access and to better address the needs of the community we serve.
- Baylor is committed to recruiting and retaining outstanding students, trainees, faculty and staff from diverse backgrounds by providing a welcoming, supportive learning environment for all members of the Baylor community.

Notice of Nondiscrimination
Baylor College of Medicine is committed to a safe and supportive learning and working environment for its learners, faculty and staff. College policy prohibits discrimination on the basis of race, color, age, religion, gender, gender identity or expression, sexual orientation, national origin, veteran status, disability or genetic information. Harassment based on any of these classifications is a form of discrimination and also violates College policy (02.2.25, 02.2.26) and will not be tolerated. In some circumstances, such discriminatory harassment also may violate federal, state or local law.