About the cover

Continuum of quality

From education, and research, to patient care, the goal of The University of Texas Medical School at Houston is always quality as measured by the highest standards. Representing this measured, integrated approach, which translates into the best of patient care, are clockwise, from left standing, Craig Cordola, associate dean for hospital affairs and community partnerships and CEO of Children’s Memorial Hermann Hospital; Emily Rasch; Lindsay Morgan, second-year student; and Bela Patel, M.D., associate professor of internal medicine and assistant chief medical officer and executive medical director of critical care medicine, Memorial Hermann Hospital - Texas Medical Center.
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Dean’s Message

When I decided to advance my medical training more than 20 years ago, I knew I wanted to be challenged by the best academic medical centers the world had to offer. So, in 1988, I made the move from Italy to the United States, where the opportunities for medical students and trainees are unparalleled.

Today, as dean of The University of Texas Medical School at Houston, I find our bright students are drawn to learn in our vibrant Texas Medical Center, where they not only have access to the latest knowledge and technology but also are able to serve an incredibly broad patient population.

When our medical school opened in 1970 to help meet the health care needs of Texans, 19 students comprised that founding class. Today, we accept 230 students per class to accommodate the increasing demands brought about by an aging and growing population faced with complex medical requirements.

Despite our evolution, our mission remains steadfast – to educate the next generation of caring, expert physicians for the state of Texas.

I am pleased to offer you this first annual report of the Medical School in an attempt to highlight some of our accomplishments of a great year – fiscal year 2009. As our medical school approaches middle age, we are growing into our own – making a name for ourselves with the outstanding accomplishments of our students, residents, trainees, faculty, staff, and alumni.

It is hard to imagine that we have produced more than 5,000 physicians, made incredible strides in research, and are growing our clinical venues in and around the Houston area to better serve our community. I hope you are as proud of this medical school as I am.

Giuseppe N. Colasurdo, M.D., Dean and H. Wayne Hightower Professor in the Medical Sciences
The University of Texas Medical School at Houston
About the Medical School

The Medical School is the largest school of The University of Texas Health Science Center at Houston, which includes the School of Health Information Sciences, the Dental Branch, the School of Public Health, the School of Nursing, and the Graduate School of Biomedical Sciences. The health science center also includes The University of Texas Harris County Psychiatric Center, the Mental Sciences Institute, the Brown Foundation Institute of Molecular Medicine for the Prevention of Human Diseases, and several interdisciplinary centers.

Located in the prestigious and vibrant Texas Medical Center, The University of Texas Medical School at Houston has been blazing a course of excellence since it was established by the Texas Legislature on June 13, 1969.

The mission of The University of Texas Medical School at Houston is to provide the highest quality of education and training of future physicians for the state of Texas, in harmony with the state’s diverse population; to conduct the highest caliber of research in the biomedical and health sciences; and to provide exemplary clinical services in relationship to our educational and discovery activities.
We share a **bold**, global commitment to our students, and our passion for education shows.
The Larry C. Gilstrap, M.D. Center for Perinatal Research and Women’s Health is one of the Medical School’s planned scholarly concentrations for Medical School students.

Housed within the Department of Obstetrics, Gynecology, and Reproductive Sciences and supported by funding from the Center for Clinical and Evidence-Based-Medicine, the center has two major objectives: to promote the development of young investigators in perinatal and women’s health research through a structured mentorship program as well as to provide research infrastructure support.

Additionally, it will establish a training program for medical students – all four years – to educate them on the importance of, and opportunities for, a career in women’s health. This program will include summer externship opportunities in obstetrics and gynecology as well as a year-round educational program with topics related to women’s health. The goal is to foster interest and enthusiasm in both clinical research and women’s health in order to convince the best and brightest of the Medical School’s students to practice perinatal medicine and/or women’s health.

The scholarly concentrations are an addition meant to complement the Medical School’s comprehensive curriculum.

“We are implementing career-focused paths to help our students become better prepared for their chosen specialties,” explains Dean Giuseppe Colasurdo, M.D. “With mentored, hands-on opportunities in areas such as women’s health, geriatrics, and surgery during the four years of medical school, students will excel when presented challenges during their training programs. Their patients will be the beneficiaries.”

In order to accomplish its research and training missions, the Gilstrap
center will work closely with the UT Health Science Center’s Center for Clinical and Translational Sciences, the UT Center for Clinical Research and Evidence-Based Medicine, the UT Houston-Memorial Hermann Clinical Safety and Effectiveness Academy, and the Memorial Hermann Clinical Innovation & Research Institute.

The center’s creation was formally announced Oct. 28, 2008, in the Fifth Floor Gallery by Dean Colasurdo.

“The creation of this center started with a brainstorming meeting with Dr. Gilstrap about how we could better support medical students early in their medical careers with extra knowledge and experience in their chosen specialties,” Dean Colasurdo says. “Dr. Gilstrap was an outstanding example to us as a department chair. He is very special to us, and this center will be very special to the Medical School.”

Sean Blackwell, M.D., associate professor of obstetrics and gynecology, is the first director of the center and has been named vice chair of research in the Department of Obstetrics, Gynecology, and Reproductive Sciences to carry out the objectives of the center.

“Dr. Gilstrap’s career is a template of academic success,” Blackwell says. “His contribution to our specialty is not only manifest through his research findings, but even more through his dedication and commitment to mentoring the next generation of physicians. This center, in the spirit of Dr. Gilstrap, will foster interest and enthusiasm in women’s health and help guide young investigators and students to improve the health of women and their children.”

Gilstrap retired as chair of the Department of Obstetrics, Gynecology, and Reproductive Sciences Sept. 1, 2006, and has since been named chair emeritus. Since becoming director of evaluation of the American Board of Obstetrics and Gynecology in Dallas, he has remained involved and supportive of UT Medical School students. It is the intent of the center that he will continue to be active with the Medical School through his participation with the center.

“This day is the most rewarding day of my career. I don’t know if I deserve it 100 percent completely, but I’m not giving it back,” Gilstrap said at the Oct. 28 event.
By the numbers

Medical School Students

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>MCAT Average Score</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>127</td>
<td>103</td>
<td>30</td>
<td>3.7</td>
</tr>
<tr>
<td>2008</td>
<td>137</td>
<td>93</td>
<td>31</td>
<td>3.7</td>
</tr>
<tr>
<td>2009</td>
<td>141</td>
<td>89</td>
<td>32</td>
<td>3.7</td>
</tr>
</tbody>
</table>

2009 Residents and Fellows

- Number of ACGME residencies: 29
- Number of ACGME fellowships: 31
- Number of Texas Medical Board Fellowships: 29
- Total residencies and fellowships by specialty: 89
- ACGME residents: 370
- ACGME fellows: 120
- Texas Medical Board fellows: 34
- Oral and Maxillofacial Surgery Dental Residents: 26
- Total residents and fellows enrolled: 850

Where Medical School Alumni live*

* known addresses include resident alumni

Top Ten States
- Texas: 6,149
- California: 614
- Florida: 392
- North Carolina: 204
- Colorado: 187
- New York: 180
- Georgia: 167
- Louisiana: 155
- Tennessee: 149
- Arizona: 146
Medical School Graduating Class Top Specialty Choices

<table>
<thead>
<tr>
<th>Year</th>
<th>Specialty</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Internal Medicine</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Pediatrics</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Anesthesiology</td>
<td>10%</td>
</tr>
<tr>
<td>2008</td>
<td>Internal Medicine</td>
<td>12.5%</td>
</tr>
<tr>
<td></td>
<td>Anesthesiology</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Obstetrics/Gynecology</td>
<td>9%</td>
</tr>
<tr>
<td>2009</td>
<td>Internal Medicine</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Anesthesiology</td>
<td>10.5%</td>
</tr>
<tr>
<td></td>
<td>Obstetrics/Gynecology</td>
<td>8.5%</td>
</tr>
<tr>
<td></td>
<td>Pediatrics</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

International institutions with activities/collaborations with the Medical School

1. University of Caxias do Sul, Brazil
2. University of Sao Paulo, Brazil
3. Universidad El Bosque, Colombia
4. National and Kapodistrian University of Athens, Greece
5. University of Debrecen, Hungary
6. Sikkim Manipal University, India
7. Sogang University, Department of Life Science, Korea
8. Nagoya University, Japan
9. The University of Tokushima, Japan
10. Universidad Autonoma de Guadalajara, Mexico
11. Massey University, New Zealand
12. University of Panama, Panama
13. Capital Medical University, People's Republic of China
14. Nanjing Medical University, People's Republic of China
15. Shanghai Jiao Tong University, School of Medicine, People's Republic of China
16. Soochow University, People's Republic of China
17. Southern Medical University, People's Republic of China
18. Taizhou City Government, People's Republic of China
19. The First Affiliated Hospital of Soochow University, People's Republic of China
20. China Medical University, Republic of China (Taiwan)
21. Fu-Jen Catholic University, Republic of China (Taiwan)
22. Taipei Medical University, Republic of China (Taiwan)
23. University of Ljubljana, Slovenia
Our cutting-edge, competitive, and motivated investigators strive to benefit patient care and enrich science.
For the first time in the United States, a stroke patient has been intravenously injected with his own bone marrow stem cells as part of a research trial at the Medical School.

Roland “Bud” Henrich, 61, was transferred to Memorial Hermann – Texas Medical Center on March 25, 2009, after suffering a stroke while working on his farm in Liberty, Texas. Arriving too late to receive tissue plasminogen activator (tPA), the only treatment for ischemic strokes, he became the first patient in the stem cell trial.

The Phase I safety trial, funded with a pilot grant from The National Institutes of Health and support from the Notsew Orm Sands Foundation, will enroll nine more patients who have suffered a stroke and can be treated with the stem cell procedure within 24 to 72 hours of initial symptoms.

Stroke occurs when blood flow to the brain is interrupted by a blockage or a rupture in an artery, depriving brain tissue of oxygen. It is the third-leading cause of death behind heart disease and cancer. According to the American Stroke Association, nearly 800,000 Americans suffer a stroke each year — one every 40 seconds. On average, someone dies of stroke every three to four minutes.

“It’s still very early in this safety study, but this could be an exciting new therapeutic approach for people who have just suffered a stroke,” says Sean Savitz, M.D., assistant professor of neurology and the study’s lead investigator. “Animal studies have shown that when you administer stem cells after stroke, the cells enhance the healing. We
know that stem cells have some kind of guidance system and migrate to the area of injury. They’re not making new brain cells, but they may be enhancing the repair processes and reducing inflammatory damage.”

Savitz says animal studies have shown that the healing effects of stem cells can occur as early as a week, but cautioned it is too early to attribute Henrich’s improvement to the stem cell treatment. “I’m hoping he will get better and it will be because of the cells, but it’s just hope at this point,” Savitz says.

The stem cells were harvested from the bone marrow in the iliac crest of his leg, then separated and returned to Henrich several hours later. Because they are his own stem cells, rejection is not expected to be an issue.

When he arrived at the hospital, Henrich could not speak and had significant weakness on his right side. When he was released after nearly two weeks of hospitalization and rehabilitation, he was able to walk and climb stairs unassisted and said his first words.

His wife, Reba Henrich, says she believes the stem cells have helped. He has spoken a few times with a single word or a phrase since his return home. “Too crowded,” he told her at a megastore as they shopped for Easter gifts for their grandchildren and “senior” meal he told a waitress at a local restaurant. He also has fed the cows by himself, she says. They are hopeful he will eventually be able to return to his job as a painter.

“This study is the critical first step in translating laboratory work with stem cells into benefit for patients. If effective, this treatment could be helpful to a huge segment of stroke patients to reduce their disability,” says James Grotta, M.D., Roy M. and Phyllis Gough Huffington Distinguished Professor of Neurology and chair of the Department of Neurology. “We are fortunate here at UT and the Texas Medical Center to have the resources needed to carry out this work, and to have attracted someone of Dr. Savitz’s caliber to lead this study.”

“This study is the critical first step in translating laboratory work with stem cells into benefit for patients. If effective, this treatment could be helpful to a huge segment of stroke patients to reduce their disability.”

– James Grotta, M.D.
By the numbers

### Intellectual Property Activity

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invention Disclosures</td>
<td>39</td>
<td>28</td>
<td>37</td>
</tr>
<tr>
<td>New U.S. Patent Applications Filed</td>
<td>1</td>
<td>31</td>
<td>17</td>
</tr>
<tr>
<td>Licenses/Options Executed</td>
<td>19</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Licenses &amp; Options Generating Income</td>
<td>58</td>
<td>59</td>
<td>71</td>
</tr>
<tr>
<td>U.S. Patents Issued</td>
<td>10</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Startup Companies Formed</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
“Protection of man against disease is obtained at a price. Nothing in nature is given free, and all efforts should be made to reduce the cost of this payment.”

– Dr. Hilary Koprowski
Above all, we are **caring**, aiming for perfection in achieving the best outcomes for our patients.
Bravery is knowing that you are entering a risky or dangerous situation and going forward anyway. Just like donor families that selflessly give their loved ones organs just moments after hearing they aren’t going to make it, so a stranger can live a longer, healthier life.

At a glance, Xavier Castillo appears to be your typical 2-year-old, but there is more to this little guy than meets the eye. At just a few months of age, he was diagnosed with cystic dysplasia in both his kidneys.

In April 2009, Xavier received a deceased donor kidney at Memorial Hermann-Texas Medical Center. Transplant surgeons Charles Van Buren, M.D.; Jacqueline Lappin, M.D.; and Alejandra Cicero, M.D., from the Medical School, performed the technically challenging nine-hour surgery.

His vena cava, a large vein returning blood to the heart, was the only vein Xavier had available to which the transplant kidney could be attached. The vein was already catheterized for dialysis, so using it took away his chances for future dialysis if the graft failed — a huge risk. Thankfully, this had been discussed with his parents who bravely encouraged the team to “go for broke,” according to Lappin.

A few months after the surgery, Xavier is doing well, and celebrated his second birthday on June 6. Xavier’s parents, Julian and Christina Castillo, are adjusting to his new energy level.

It took teamwork to get him to this point.

We got a lot of help from the Medical School nephrologists who followed the toddler every step of the way,” Lappin says.

Joseph Angelo, M.D. and Michael Braun, M.D., monitored Xavier continuously during his early transplant course.

“Xavier’s care from the time he was born and onwards has always been a challenge, requiring the joining of efforts of the Pediatric Nephrology Team, Neonatal Intensive Care Unit, Children’s Dialysis Unit, Pediatric Surgery Team, Pediatric Intensive Care Unit, Interventional Radiology, and the Castillo family. Without this combined, excellent effort, Xavier would not have survived infancy, grown to a size to permit a kidney transplant, and achieved enough health stability to succeed the postoperative course,” says pediatric nephrologist Rita Swinford, M.D. “No one can whistle a symphony; it takes an orchestra to play it.”
Clinical Partners

UT Physicians

UT Physicians is the non-profit physician corporation affiliated with the faculty practice plan of the Medical School. The corporation’s primary purpose is to facilitate and expand the Medical School faculty’s ability to provide health care services to the community. The majority of the outpatient care provided by Medical School faculty takes place in UT Physicians clinics located in The University of Texas Health Science Center Professional Building, across the street from the Medical School. Other locations exist around the Houston region to better serve the community.

UT Physicians has more than 900 physicians certified in 80 medical specialties and subspecialties. Providing multi-specialty care for the entire family, UT Physicians helps patients needing urgent, highly specialized or complex care and also provides high-quality, wellness-oriented primary care for routine illnesses and maintenance of good health.

Memorial Hermann – Texas Medical Center

Memorial Hermann – Texas Medical Center, a partner in the Memorial Hermann Healthcare System, is the primary teaching hospital of the UT Medical School in the Texas Medical Center.

Founded in 1925, this large metropolitan hospital, licensed for 815 beds, has a long-standing record of distinction in postgraduate teaching.

It offers a broad range of inpatient services with special units for coronary and intensive care, newborn intensive care, treatment of burns, kidney disease and transplantation, advanced diagnostic facilities, a clinical research center, and emergency services.

The hospital serves as the center of inpatient clinical activity for the Medical School’s faculty.

Children’s Memorial Hermann Hospital

Children’s Memorial Hermann Hospital has been serving the community for over 20 years and is the primary teaching hospital for the pediatrics and obstetrics/gynecology programs at The University of Texas Medical School at Houston.

A recent facility expansion increased its capacity to 240 beds, making Children’s one of the country’s largest pediatric hospitals. Its Women’s Center operates an additional 68 beds. The facility offers colorful decor and special play areas for children. Education and support services for families are also available, as are services for international patients.

The hospital includes a dedicated pediatric emergency center and the largest level I trauma center in Houston fully equipped to treat pediatric patients.

Neonatal critical care services are available for infants and premature babies born as early as 23 weeks’ gestation.
Clinical Partners

Harris County Hospital District's Lyndon B. Johnson General Hospital

The Lyndon B. Johnson (LBJ) General Hospital, owned and operated by the Harris County Hospital District, is the second primary teaching facility for the Medical School.

This 332-bed hospital opened in 1989 and is a full-service general hospital with easy access for the indigent patients it serves.

Health care services for the hospital district are provided by Affiliated Medical Services (a nonprofit organization composed of UT faculty), which staffs LBJ, and Baylor College of Medicine, which staffs Ben Taub General Hospital.

UT M. D. Anderson Cancer Center

The University of Texas M. D. Anderson Cancer Center, located in the Texas Medical Center, is widely regarded as one of the world’s foremost centers for cancer care, research, education, and prevention. Since its opening in 1944, M. D. Anderson has treated more than 600,000 patients with cancer and allied diseases in its inpatient and outpatient services. The institution also houses a large clinical and basic science research program devoted to the investigation of the biology of cancer and includes active units in biochemistry, biological response modifiers, biophysics, molecular biology, pathology, pharmacology, cell biology, and cancer prevention.

M. D. Anderson Cancer Center participates in a wide range of training programs involving more than 2,900 students annually in the sciences and health professions.

UT HCPC

The UT Harris County Psychiatric Center (HCPC), which opened in 1986, is a 222-bed public acute care psychiatric hospital that delivers a comprehensive program of psychiatric and clinical social services to more than 5,000 patients annually. The center plays an important role as a teaching facility for medical and nursing schools across Texas and Louisiana.

Operated by The University of Texas Health Science Center at Houston, the facility is jointly supported by the State of Texas and Harris County under the auspices of the Texas Department of State Health Services and the Mental Health and Mental Retardation Authority of Harris County, respectively. The Medical School’s Department of Psychiatry and Behavioral Sciences provides administrative leadership and medical services for the center.
By the numbers

Total Revenues vs. Expenses of the UT Medical School’s Practice Plan

- FY07: Total Operating Revenues $215,534,120, Total Operating Expenses $194,796,909
- FY08: Total Operating Revenues $216,365,792, Total Operating Expenses $216,878,222
- FY09: Total Operating Revenues $256,831,680, Total Operating Expenses $245,250,955

*The Legislative Budget Board defines “unsponsored charity care” as unreimbursed costs for services to the financially or medically indigent. This definition does not include the costs of contractual adjustments for Medicare or commercial insurance contracts or bad debts for uncollected billed charges to patients who do not qualify for unsponsored charity care.

Gross Patient Charges of the UT Medical School’s Practice Plan

- FY 07: $470,663,857
- FY 08: $512,354,732
- FY 09: $536,681,089

Outpatient Encounters

UT Physicians

- FY07: 168,781
- FY08: 188,805
- FY09: 206,239

Unsponsored Charity Care

- FY 07: $120,207,309
- FY 08: $186,659,334
- FY 09: $197,531,830
Milestones

The Medical School marked milestones and traditions during fiscal year 2009, including:

- Named 5th best medical school for Hispanics by the Hispanic Business Journal
- Ranked 7th largest enrollment of all U.S. medical schools
- Listed as 25th largest residency program in the nation.
February 26
President Larry Kaiser holds first town hall at Medical School

March 7
Brain Awareness Week hosts public forum at Medical School and McGovern Health Museum

March 19
Match Day 2009 in Webber Plaza

May 28
Commencement 2009 at the George R. Brown Convention Center

August 12
White Coat Ceremony at Rice University

August 14
Second-year students host Student Retreat at Camp Allen for incoming class
Faculty Accolades

H. Vernon Anderson, M.D., professor of medicine, received the Simon Dack Award from the Journal of the American College of Cardiology.

The President’s Scholars Awards honored three outstanding faculty – Frank Arnett, M.D., professor of internal medicine; Herbert DuPont, M.D., professor of infectious diseases; and Cheves Smythe, M.D., professor of internal medicine.

Valentin Dragoi, Ph.D., associate professor of neurobiology and anatomy, received a National Institutes of Health EUREKA award.

The Leonard Tow Humanism in Medicine Award went to James “Red” Duke, M.D., professor of surgery. He was honored by the Texas A&M University Corps of Cadets by induction into the Corps Hall of Honor.

The Herbert L. and Margaret W. DuPont Master Clinical Teaching Award was granted to Francisco Fuentes, M.D., professor of internal medicine.

Jose Garcia, M.D., professor of pediatrics, received the state 2008 Distinguished Volunteer Service Award for Program Services from the March of Dimes.

Millicent Goldschmidt, Ph.D., professor of microbiology and molecular genetics, was named the recipient of the 2009 Roche Diagnostics Alice C. Evans Award.

Andrew Harper, M.D., medical director of the University of Texas Harris County Psychiatric Center, received the Psychiatric Excellence Award from the Texas Society of Psychiatric Physicians.

John Holcomb, M.D., professor of surgery, was named the Chancellor’s Health Fellow for Trauma and Injury Programs by Dr. Kenneth Shine. He also received the 2008 Lifetime Achievement Award in Trauma Resuscitation Science from the American Heart Association.

Jacqueline Lappin, M.D., assistant professor of surgery in the Division of Immunology & Organ Transplantation, was named Memorial Hermann – Texas Medical Center Physician of the Year for 2008.

The Benjy F. Brooks Award and John P. McGovern Award went to Pedro Mancias, M.D., associate professor of neurology.

John D. Reveille, M.D., professor and director of the Division of Rheumatology and Clinical Immunogenetics, was named a member of the Association of American Physicians.
Henry Strobel, Ph.D., professor of biochemistry and molecular biology and associate dean for faculty affairs, was named the 2008 recipient of the TIAA-CREF Distinguished Medical Educator Award.

Nathaniel Strobel, M.D., assistant professor of pediatrics, was named Children’s Memorial Hermann Hospital Physician of the Year for 2008.

Jon Tyson, M.D. M.P.H., director of the Center for Clinical Research and Evidenced Based Medicine, received the 2009 Maureen Andrew Mentor Award from the Society for Pediatric Research.

The John Freeman Faculty Teaching Award went to Margaret Uthman, M.D., professor of pathology.
The mission of the Department of Anesthesiology is to achieve and demonstrate excellence in the clinical care of patients and in academics both through innovative research and by offering a stellar educational program.

Anesthesiology faculty members are respected for their dedication to research, education, and clinical training. Our clinical faculty provide anesthetic services at Memorial Hermann – Texas Medical Center, Memorial Hermann Ambulatory Surgery Center, the Memorial Hermann Heart and Vascular Institute, as well as at Lyndon B. Johnson General Hospital. Additionally, we have basic science faculty dedicated to research on decompression sickness as an inflammatory disease, lung function in prolonged heart failure, skin perfusion and transcutaneous oximetry testing of hyperbaric patients, as well as the efficacy of new therapeutic medication in the treatment of diabetic foot ulcers.

Our goal is to create an environment conducive to our department's mission to train our residents to become excellent anesthesiologists and perioperative physicians. We aim to graduate broadly educated, well-rounded practitioners with the abilities and resources to enter with confidence any aspect of anesthetic practice.

We are in the process of expanding our services in many areas including both acute and chronic pain management, as well as increasing our participation in the intensive care setting. Additionally, we will be conducting further training of our residents and medical students in the Surgical and Clinical Skills Center through simulation training and cadaver workshops.

Rodney E. Kellems, Ph.D.
Professor and Chair

The Biochemistry and Molecular Biology Program is comprised of a diverse faculty with broad research interests.

Recent research highlights include:

Drs. William Dowhan and John Spudich each renewed their National Institutes of Health MERIT awards for a total of 10 years. Dr. Dowhan's NIH award, "Structure and Function of Membrane Proteins," started in 1973 and is the longest continuously funded NIH grant in the Medical School. Dr. Spudich's award “Structure and Function of Microbial Sensory Rhodopsins” has been continuously funded since 1980. The Dr. Spudich laboratory was also recently awarded a $900,000 NIH Challenge grant to develop new tools for photocontrol of neural activity.

Drs. Ann-Bin Shyu and Michael Blackburn published a collaborative study in *Molecular and Cellular Biology* detailing the mechanistic role of RNA processing bodies in gene expression in bronchial epithelial cells following inflammatory stimulation. This paper resulted from the expertise of the Dr. Shyu lab in RNA processing and the Dr. Blackburn lab in pulmonary physiology.

Dr. Yang Xia heads a research team dealing with pre-eclampsia, a serious hypertensive disease of pregnancy. In collaboration with investigators from the Department of Obstetrics, Gynecology and Reproductive Sciences, she published papers in *Nature Medicine*, *The Journal of Experimental Medicine*, and *Circulation* providing evidence that preeclampsia is an autoimmune disease.

The department's research centers include the Center for Membrane Biology and Structural Biology Research Center.

Carin A. Hagberg, M.D.
Professor and Chair

Joseph C. Gabel, M.D., Chair in Anesthesiology

**NUMBERS**

**Anesthesiology**

- Faculty: 62
- Residents: 69
- Interns: 10
- Fellows: 3
- Research Expenditures: $324,481
- Patient Encounters: 46,000

**Biochemistry and Molecular Biology**

- Faculty: 33
- Graduate Students: 16
- Postdoctoral/Research Fellows: 19
- Research Expenditures: $8,357,069
Departments

Cardiothoracic and Vascular Surgery

Our faculty care for patients at Memorial Hermann Heart & Vascular Institute and are world leaders in the treatment of heart and blood vessel problems, including heart valves, heart blood supply, and blood circulation throughout the body.

Our innovative techniques have resulted in critical advancements in the repair of ballooning blood vessels – preventing rupture and significantly improving outcomes. Surgeons of the department have been leaders in the field of aortic surgery for three decades, developing and perfecting all aspects of aortic disease management. Procedures involve clinical investigation with the goal of optimizing techniques of repairs of the ascending, transverse, arch and thoracoabdominal aorta. Refinement in techniques are being investigated to provide multiorgan protection. The department has one of the world’s largest aortic surgery practices and as such is a major center for device development research, participating in numerous clinical trials.

We are actively involved in the NIH-funded specialized center grant (SCCOR) in collaboration with Dr. Dianna Milewicz in the Department of Internal Medicine. Faculty in our department collaborate actively with the educational and research programs of the Medical School’s Center for Clinical Research and Evidence-Based Medicine in teaching and mentorship programs as well as in the administration of the NIH-funded K12 program in connection with the Center for Clinical and Translational Sciences.

As faculty members, we train the next generation of world-class surgeons. Our faculty have published more than 200 articles in medical journals to document their work and travel worldwide to share their expertise.

NUMBERS

Faculty: 9
Residents: 2
Fellows: 3
Research Expenditures: $4,196

Dermatology

Dermatology is an integrated department between the Medical School and M. D. Anderson Cancer Center. Activities also involve Memorial-Hermann Hospital and the Harris County Hospital District.

The department was ranked as one of the top eight dermatology clinical centers of excellence in the nation according to Medical Economics and Dermatology Times in 2009.

The combined research funding is at $2.5 million per year, particularly emphasizing pediatric dermatology, cutaneous lymphoma, skin cancer, dermatopathology, and skin molecular virology.

There are 22 salaried faculty, 17 dermatology residents, a surgical dermatology fellow, a dermatopathology fellow, and two clinical research fellows. The training programs are extremely competitive. We are one of the larger dermatology programs in the nation.

Senior faculty have held major national offices such as president of the American Board of Dermatology, president of the American Society of Dermatopathology, and president of the Society for Pediatric Dermatology.

Electives for medical students are popular amongst students from schools other than our own.

Dermatology operates a very busy clinical dermatopathology and immunofluorescence laboratory for processing patient biopsies.

NUMBERS

Faculty: 11*
Residents: 17*
Fellows: 2*
Research Expenditures: $475,187
Patient Encounters: 15,010
*excludes M. D. Anderson
Diagnostic and Interventional Imaging

The Department of Diagnostic and Interventional Imaging supports a broad spectrum of healthcare needs and provides the educational and research initiatives of a radiology department at the forefront of modern medicine.

This is made possible through our affiliation with our teaching hospitals, Memorial Hermann - Texas Medical Center and the Lyndon B. Johnson General Hospital. Our department interprets more than 420,000 radiological procedures per year. Providing sub-specialized quality service to our patients and their referring physicians is actively maintained through a high-profile performance improvement program.

Teaching is fundamental to our mission, and we are proud of the well-recognized qualifications of our faculty. Our training programs not only capitalize on the educational opportunities at our affiliated teaching hospitals but also benefit by sharing residency and fellowship training programs with other internationally recognized radiology departments, including M. D. Anderson Cancer Center, St. Joseph's General Hospital, Texas Children's Hospital, and St. Luke's Hospital. Together we offer a premier educational environment staffed by an internationally recognized faculty.

World-class research in MR, PET, nuclear medicine, and ultrasound are hallmarks of our department, with many of our basic science faculty and clinical faculty achieving international status as leaders in their fields.

**NUMBERS**
- Faculty: 55
- Residents: 51
- Fellows: 5
- Research Expenditures: $2,266,357
- Procedures: 585,000

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Emergency Medicine

The Department of Emergency Medicine is proud of its commitment to clinical and educational excellence, academic rigor, and superior service.

We believe that emergency medicine is best taught by emergency physicians and best learned in the emergency department. To that end, our curriculum emphasizes emergency department experiences coupled with carefully selected rotations intended to augment the residents’ skills. As hard as we have worked to make our curriculum strong and effective, it remains a work in progress. We constantly evaluate the program to ensure that we continue to meet the needs of the next generation of emergency physicians.

Our primary focus is the training of emergency medicine residents. When a resident completes our program, we believe that he or she is prepared to practice in any emergency department, anywhere. This preparation includes not only superior clinical skills but also the interpersonal skills critical to the effective practice of emergency medicine.

In an effort to promote collaboration among our faculty and our colleagues at The University of Texas, and to focus on the clinical strengths of our two emergency departments, the department’s clinical researchers list the following opportunities as our primary research foci: research involving the acute care of the injured heart, brain, and vascular system; public health and prevention research; research involving the medical or traumatic presentation of shock; and research involving health informatics and emergency medicine processes.

We provide clinical expertise at Lyndon B. Johnson General Hospital, Memorial Hermann – Texas Medical Center, Children's Memorial Hermann Hospital, Sugarland Pediatric, Memorial Hermann Memorial City Pediatric, and Memorial Hermann Woodlands Pediatric.
Departments

Family and Community Medicine

We have a diverse faculty and staff committed to excellence in patient care, teaching, research, and community service.

Our faculty are involved in a wide range of activities, including medical student education and family medicine residency training.

We offer multiple sites for comprehensive family care. Areas of faculty expertise include screening and prevention of disease and ambulatory procedures such as flexible sigmoidoscopy, exercise stress testing and exercise prescription, and vasectomy. Our faculty and residents provide low-risk maternity care, care for newborns and children, as well as adult medical care covering a wide spectrum of common diseases. Several of our faculty have special expertise in geriatrics and sports medicine.

One of our residency program’s strengths is our behavioral science curriculum that emphasizes the bio-psycho-social approach to medical care. Our residents also are trained to use the transtheoretical model of behavior change to encourage their patients to make healthy lifestyle changes.

Our Urban Program coordinates medical services, educational activities (both medical student and resident), research, community outreach, and health profession interdisciplinary endeavors at the Harris County community health centers that serve the Lyndon B. Johnson General Hospital with a goal to provide quality health care to all patients.

We deliver high quality patient care at multiple sites in both ambulatory and inpatient settings, including UT Physicians Family Medicine, HCHD-Acres Home Clinic, UT Physicians-Bellaire, HCHD-Aldine Clinic, Physicians Surgicenter of Houston, HCHD-Baytown Clinic, St. Dominic’s Assisted Living Unit, HCHD-Settegast Clinic, St. Dominic’s Nursing Home, HCHD-Squatty Lyons Clinic, Memorial Hermann – Texas Medical Center, and Lyndon B. Johnson General Hospital.

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<td>Research Expenditures: $1,128,640</td>
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<td>Patient Encounters: 158,981</td>
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Carlos A. Moreno, M.D., MSPH
Professor and Chair
C. Frank Webber Chair in Family Medicine

Integrative Biology and Pharmacology

The research interests of the Integrative Biology and Pharmacology (IBP) faculty focus on the cell biology, physiology, and pharmacology of cell regulation and communication. Major research themes include the molecular mechanisms and spatiotemporal dynamics of membrane signaling, intracellular and metabolic signaling, the biology and physiology of cell-cell interactions, and the use of computational, structural and systems approaches to decipher signaling networks. These efforts are broadly aimed at understanding how normal and abnormal cell function translates into whole animal physiology and pathophysiology and at exploring the molecular pharmacology of existing and novel therapeutics. In this context, we have expanding programs in cancer cell biology, cardiovascular biology, tissue regeneration and plasticity (especially in nerve and muscle), and neuronal signaling in injury, inflammation and pain.

IBP faculty teach physiology and pharmacology to medical and dental students, run a graduate studies program in cell and regulatory biology, and a training grant in pharmaco-informatics.

Recent research highlights include:

Dr. Carmen Dessauer’s research is focused on how adenylyl cyclase, acting as an integration hub for different types of signals, can modulate cAMP output and ultimately the fidelity of cAMP signaling. She recently published her latest work in *Proceedings of the National Academy of Science USA*.

Dr. Guangwei Du investigates the roles of specific phospholipids in cell signaling networks; this novel work has recently resulted in five articles in high impact journals, including *Nature Cell Biology and Molecular Biology of the Cell*.

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<td>Faculty: 40</td>
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<td>Postdoctoral Fellows: 22</td>
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<td>Research Expenditures: $5,022,869</td>
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John F. Hancock, M.B., B.Chir, Ph.D.
Professor and Chair
Fondren Chair in Cellular Signaling
The Department of Internal Medicine strives to improve the quality of health care through excellence in the education of students, residents, physicians, and the public; the advancement of biomedical knowledge through discovery, integration, and translation to the clinical setting; and the provision of state of the art comprehensive, compassionate, and accessible patient care.

The department has undergone exponential growth over the past few years in basic and clinical research as well clinical patient care to become one of the largest academic departments of medicine in the country.

The scope of our department is best illustrated through our 13 divisions: Cardiovascular Medicine; Endocrinology and Diabetes, Gastroenterology, and Hepatology General Internal Medicine Geriatrics; Hematology; Infectious Diseases; Medical Genetics; Nanomedicine; Oncology; Pulmonary, Critical Care and Sleep Medicine; Renal Diseases and Hypertension; and Rheumatology and Clinical Immunogenetics.

The department’s clinical services span the continuum of primary care to subspecialty care. Excellent clinical care is provided at UT Physicians-Medical Center, Bellaire and Sienna facilities, Memorial Hermann – Texas Medical Center, Memorial Hermann Northeast, Memorial Hermann Southeast, TIRR Memorial Hermann, and Lyndon B. Johnson General Hospital.

The Department of Microbiology and Molecular Genetics is highly committed to excellence in both research and education. Our faculty conduct research in the biology, pathogenesis, and molecular genetics of a wide variety of prokaryotic and eukaryotic microbes.

The department is home to the Graduate Program in Microbiology and Molecular Genetics and also offers the Medical Microbiology course taken by first-year medical students. The graduate program faculty are internationally recognized leaders in microbiology or molecular genetics. The department is committed to graduate education and its faculty have diverse research interests.

The department has a core facility that provides automated DNA sequencing services for all researchers in the Medical School as well as an electron microscope, a Biacore system, and Real-Time PCR system.

Recent research highlights for the department include:

Dr. William Margolin is leading research pertaining to the ability of bacteria to undergo cell division, a fundamental life process.

Dr. Hung Ton-That is showing how bacteria attach to cell surfaces prior to the infectious process and in so doing is a leader in understanding the structure and function of attachment organelles.

Dr. Michael Lorenz has developed methods that address the infectious process of the ubiquitous fungal pathogen, Candida, by conducting research into changes in its metabolic lifestyle when free-living versus the infectious state.
Neurobiology and Anatomy

Neuroscience is considered by many to be one of the last frontiers of the biomedical sciences. The Department of Neurobiology and Anatomy is committed to being at the forefront of these discoveries.

One of the largest neuroscience departments in North America, the department’s missions include biomedical research in anatomy/neuroanatomy, biophysics/electrophysiology, computational neuroscience, learning and memory, molecular neurobiology, neuropharmacology/neurochemistry, neuronal circuits, primate neurobiology, synaptic/cellular plasticity, and vision. Department faculty also teach medical and graduate courses in neuroscience, gross anatomy, developmental anatomy as well as some dental courses.

The department manages the Neuroscience Research Center, the W.M. Keck Center for the Neurobiology of Learning and Memory, the Willed Body Program and Human Structure Facility, and several of the Medical School’s core research facilities.

Recent department research accolades include:

Dr. Michael Beauchamp’s laboratory has made major progress in understanding how the human brain makes sense of the complex information arriving in the visual, auditory, and somatosensory modalities, a process known as multisensory integration.

Dr. Pramod Dash’s laboratory is focused on identifying the cellular and molecular mechanisms that are critical for the formation and storage of short-term and long-term memories, with particular focus on the roles of the prefrontal cortex and the hippocampus.

Over the past 12 months, Dr. Valentin Dragoi’s laboratory has attempted to answer an important question for the first time: whether and how populations of cells in multiple cortical areas and layers encode information to influence behavioral performance.

Neurology

The mission of the Department of Neurology is to provide a comprehensive learning environment for future neurologists, perform groundbreaking research in the field of neurology, and provide cutting-edge care for patients who cross through the thresholds of our clinical sites.

All our specialty programs focus on the clinical applications of the latest neurological research. The Stroke Program has been continuously funded to translate new therapies from their laboratories to bedside testing, and is a national leader in treatment and research of acute stroke. The Multiple Sclerosis Research Group focuses on fundamental and applied research approaches in neuroimmunology and advanced magnetic resonance imaging to better understand the pathogenesis and treatment of multiple sclerosis. The Neuromuscular Program is focused on providing the latest state of the art clinical care to the patients with neuromuscular disorders. The Texas Comprehensive Epilepsy Program and its Epilepsy Monitoring Unit at Memorial Hermann-Texas Medical Center offer a comprehensive diagnostic and therapeutic program for pediatric and adult epilepsy patients and their physicians. The movement disorders program (UT MOVE) also embodies a comprehensive diagnostic and therapeutic program for patients with Parkinson’s disease and similar disorders, and both the movement and epilepsy programs collaborate with our neurosurgical colleagues to treat refractory cases. Our newest program is in cognitive disorders and dementia and includes both a multidisciplinary clinical diagnostic and treatment program and groundbreaking research in the Mischer Neuroscience Institute. Finally, our diagnostic neurology group of expert clinicians is always available for evaluating and treating new patients referred for any sort of neurological condition.

In addition to Memorial Hermann Hospital and the UT Physicians Neurology Clinic in the Texas Medical Center, our clinical venues also include UT Physicians Belaire Institute for Rehabilitation Research, Lyndon B. Johnson General Hospital, and MLK clinic.
Neurosurgery

W e are currently the largest neurosurgery group in Houston and also the #1 neurosurgery program in terms of market share. Last fiscal year, 24.1% of all cranial neurosurgery cases performed in Houston were performed by our team. Our doctors performed 1,935 neurosurgical cases (cranial) and 527 spine cases in 2009. Each member of our department is jointly on the Mischer Neuroscience Institute at Memorial Hermann (MNI).

Our program has grown significantly in the past three years, almost doubling in size. At the same time, our quality has improved. Our mortality rates are below the benchmark of our peers in the University HealthSystem Consortium (UHC). In addition, complication rates at the MNI are also below national standards as compared to UHC and Healthgrades organizations. Both of these measures have improved dramatically over a three-year period.

We are proud of the Neurosurgery Residency Training Program, begun in July 2008. We are training seven residents and recently added two fellows, one in neuro critical care and the other in endovascular neurosurgery.

Research is a high priority for us. In 2009, we were #7 in NIH grant funding among neurosurgery departments nationally. We have over 10 PhD faculty, and most clinicians also are involved in research projects. Current direct spending exceeds $5 million per year. The Vivian L. Smith Foundation for Neurologic Research has provided substantial support for the center since it was established in 1996. In addition, our department forms a major component of the UT Center for Regenerative Medicine, a collaboration with Pediatric Surgery and Internal Medicine.

Obstetrics, Gynecology, and Reproductive Sciences

O ur department consists of two divisions: General Obstetrics & Gynecology and Maternal-Fetal Medicine. Our physicians provide coverage at Memorial Hermann Hospital and Lyndon B. Johnson General Hospital. Faculty members are involved in patient care, education, research, and community service.

Our faculty offer special expertise to patients in all aspects of women’s health, including normal and high-risk pregnancies, reproductive endocrinology and infertility, gynecologist oncology, and general gynecology. We offer our patients minimally invasive techniques such as laparoscopy, hysteroscopy and robotic surgery; urogynecology; hormonal and menopausal management; a full range of contraceptive options including intrauterine devices, subcutaneous contraceptive implants, and hysteroscopic sterilization; as well as well-woman and preventive health care.

As a university, we have a commitment to medical student and resident physician education. We have two fully accredited residency programs in obstetrics and gynecology and offer a fully accredited three-year fellowship in maternal-fetal medicine.

In the Division of General Obstetrics and Gynecology, our goal is to provide superior medical care for women of all ages. Each member of the division is skilled in general obstetrics, benign gynecology, obstetric procedures, and gynecologic surgery.

The Division of Maternal-Fetal Medicine provides care in several forums. We offer consultations to patients with high-risk obstetrical problems, referred by their regular obstetrician.
The Richard S. Ruiz, M.D. Department of Ophthalmology and Visual Science

Robert M. Feldman, M.D.
Professor and Chair
Richard S. Ruiz, M.D.,
Distinguished University Chair
in Ophthalmology

The Richard S. Ruiz, M.D., Department of Ophthalmology and Visual Science provides a full complement of inpatient and outpatient clinical services through its primary teaching facilities: the Cizik Eye Clinic, Memorial Hermann-Texas Medical Center, Children’s Memorial Hermann Hospital, Lyndon B. Johnson General Hospital, Settegast Community Health Center, Baytown Community Clinic, and Acres Home Community Health Center.

The ophthalmic subspecialties represented in the Cizik Eye Clinic include ophthalmic plastic, reconstructive and orbital surgery; corneal and external disease, refractive surgery, glaucoma, retina, vitreous and uveitis; pediatric ophthalmology; and neuro-ophthalmology. All of the physicians at the Cizik Eye Clinic are faculty members in the Department of Ophthalmology and Visual Science, are board certified by the American Board of Ophthalmology, and are on the medical staffs of numerous facilities, most notably that of Memorial Hermann – Texas Medical Center.

In addition to clinical care, ophthalmology and visual science faculty are at the forefront of research into anatomy and physiology of the eye as well as the causes and treatments of ocular disease. The department is known as a leading center for the design and development of clinical trials in ophthalmology.

The Department of Ophthalmology and Visual Science is involved in the education of undergraduate, graduate, and post-graduate students as well as residents and fellows in a variety of fields of medicine. At the core of the department’s educational missions is to train medical students the basics of eye care they will need regardless of the field of medicine they choose and develop the next generation of leaders in the field of ophthalmology, its subspecialties, and related areas of research.

Walter R. Lowe, M.D.
Professor and Chair
Richard S. Ruiz, M.D.,
Distinguished University Chair
in Ophthalmology

Orthopaedic Surgery

The Department of Orthopaedic Surgery provides compassionate, contemporary medical care in a professional, effective, and cost-conscious manner as we encourage a multi-disciplinary team approach to address the needs of the patient as a whole person.

To accomplish this goal, we engage our students, residents, and faculty in providing both medical care and health education to members of our community who might otherwise remain unattended; we stimulate and foster scholarly research in both basic and applied medical science as we continue to create and evaluate new knowledge, particularly as it relates to the cause, prevention, and treatment of musculoskeletal conditions; we provide the best possible educational experience for both students and faculty as we empower them to effectively apply their increasing fund of orthopaedic knowledge; and we will seek to develop in our students, faculty, and staff those qualities that will be critical to leadership as we meet the challenges of healthcare in the 21st century - integrity, professionalism, scholarship, collegiality, creativity, and compassion.

The Orthopaedic Biomechanics Laboratory performs both experimental and computational research. The department also is home to a Bone Histomorphometry Laboratory and a Dual Energy X-Ray Absorptiometry (DXA) lab.

Clinical care is provided at Memorial Hermann – Texas Medical Center, The University of Texas Professional Building and Sports Medicine Institute, UT Physicians Katy, Sugarland, UT Physicians-Bellaire, and Lyndon B. Johnson General Hospital.

Walter R. Lowe, M.D.
Professor and Chair

NUMBERS

Faculty: 25
Residents: 10
Fellows: 2
Research Expenditures: $2,780,143
Patient Encounters: 42,108

NUMBERS

Faculty: 18
Residents: 15
Fellows: 7
Research Expenditures: $141,832
Patient Encounters: 19,049

2009 Year in Review | 35
The Department of Otorhinolaryngology–Head and Neck Surgery focuses on the care of patients with complex diseases and disorders of the ears, nose, and throat. The department’s full-time faculty members provide world-class patient care and participate in a variety of academic activities for education and research. Their knowledge and expertise has earned them regional, national, and international recognition.

The Department of Otorhinolaryngology–Head & Neck Surgery’s mission is to provide the best possible ear, nose, and throat care for our patients. Patient care is provided at Memorial Hermann Medical Plaza, Memorial Hermann – Texas Medical Center and Children’s Memorial Hermann Hospital.

Specialized programs within the department include the Texas Sinus Institute, the Texas Skull Base Physicians and the Texas Voice Performance Institute. In addition, the department has established programs for facial plastic surgery, pediatric ENT, and head and neck surgery.

The department sponsors a robust educational program, which includes an otorhinolaryngology residency training program as well as two clinical fellowships (rhinology and facial plastic surgery). The department’s CME programs include Advanced Rhinology Concepts, Otorhinolaryngology Frontiers, and departmental grand rounds. In addition, the department publishes two e-newsletters, UT ORL Update and ORL Progress Notes.

Physicians from the department perform clinical and basic science projects since the faculty members strongly believe that the department’s research efforts drive the innovation necessary to provide tomorrow’s advances. The major emphasis of the translational science program is the characterization of the mechanisms for chronic rhinosinusitis.

The goal of the Department of Pathology and Laboratory Medicine is to combine the traditional values of academic pathology – excellence in service, teaching, and research – with innovative approaches to the new challenges of medicine and science. We strive to become a model of excellence in the changing world of medicine.

The department includes 46 full-time clinical and research faculty as well as many joint appointment, part-time, and adjunct faculty.

Clinical and basic research are major aspects of the department’s programs. Almost all faculty are engaged in research with the aim of discovering new knowledge and/or developing ways to apply new knowledge to improve diagnosis and management of disease.

Centers and facilities include the Imaging Core Lab, the Chemical Immunology Research Center, the Treponema Molecular Genetics Server, the Electron Microscopy Laboratory, and Research Training in the Molecular Basis of Infectious Disease.

The Outreach Laboratory is fully accredited and staffed by pathologists with subspecialty expertise in many areas. Our goal is to provide the specialized expertise of the UT pathologists to practicing physicians in an efficient, cost-effective, and user-friendly manner.

The department directs a fully accredited residency training program, is extensively involved in the Medical School curriculum, and plays an active role in the training of graduate students in the affiliated Graduate School of Biomedical Sciences.

Our teaching hospitals provide a diverse patient population and exposure to a wide spectrum of human disease.
The Department of Pediatric Surgery faculty is dedicated to promoting excellence in all areas of pediatric surgery.

The Department of Pediatric Surgery has six divisions: General & Thoracic Surgery; Neurosurgery, Plastic & Craniofacial Surgery; Cardiovascular Surgery; Acute Care Practitioners; and Orthopedic Surgery.

Our department is composed of outstanding clinicians and researchers whose skills and expertise cover all major areas of pediatric surgery and different fields of scientific investigation.

The goal of the pediatric surgery residency training program is to prepare residents to become safe, qualified, and board-certified pediatric surgeons and to be the teachers, researchers, and future leaders in the field of pediatric surgery. The pediatric surgery residents rotate through a variety of hospitals – both public and private, in the Texas Medical Center during their two-year training period, which allows residents to take care of patients in different practice settings. Our faculty enjoy teaching and provide the residents with guided independence in patient care and operative experience.

The UT pediatric surgical team partners with the Children's Memorial Hermann Hospital (CMHH) and the Children's Cancer Hospital at M. D. Anderson. We offer emergency and continued care for pediatric trauma patients from our level 1 trauma facility based at CMHH. Our UT surgical team collaborates with outstanding health care professionals in our partner facilities to care for each child and their family.

The mission of Department of Pediatrics is to provide the highest quality of medical care; to advance the knowledge in biomedical and behavioral sciences through the expansion of our research programs; and to provide excellence and innovation in the training of students, residents, fellows, and physicians.

As one of the sites of the National Institutes of Health Multicenter Neonatal Intensive Care Network grants, our faculty have contributed to a variety of major advances in the care of newborn infants. The department also has a Pediatric Research Center whose investigators are involved in clinical, basic, and translational research and are experts in the fields of birth defects, gene discovery, transgenic mouse genetics, lung biology, immunology, protein biochemistry, and cell imaging.

The department's specialized centers include the Center for Clinical Research and Evidence-Based Medicine, which promotes high-quality clinical research to increase the public’s healthy years of life. The goal of our Children’s Learning Institute is to be the preeminent source for proven clinical and educational programs covering early childhood through late teens. The department also directs the Forensic Assessment Center Network whose mission is to correct the disparities in Texas in the availability of quality medical assessment for suspected child abuse and neglect victims and to improve the outcomes for all Texas child abuse victims.

Fellowships are offered in the disciplines of Adolescent Medicine, Pediatric Cardiology, Infectious Diseases, Interventional Pediatric Cardiology, Critical Care, Gastroenterology, Neonatology, Nephrology, Pulmonology, and Endocrinology.

First-rate inpatient care is provided at Children's Memorial Hermann Hospital, Lyndon B. Johnson General Hospital, M. D. Anderson Cancer Center, and Shriner's Hospital.
Physical Medicine and Rehabilitation

The Department of Physical Medicine and Rehabilitation is dedicated to providing excellent healthcare in the areas of musculoskeletal medicine and rehabilitation of persons with spinal cord injury, traumatic brain injury, stroke, multiple sclerosis, and other neurologic and medical conditions in Houston and the surrounding community.

We are dedicated to the training, education, and research in these areas in cooperation with The University of Texas Health Science Center at Houston, TIRR Memorial Hermann, Memorial Hermann-TMC, and the Lyndon B. Johnson General Hospital.

The University of Texas Medical School/ Baylor College of Medicine Physical Medicine & Rehabilitation Departments Alliance is committed to providing the highest possible quality of interdisciplinary postgraduate fellowship training for rehabilitation professionals. This alliance is a unique and successful arrangement between the PM&R departments of two medical schools established in 1996 to share resources in education and research.

Research at the Motor Recovery Laboratory is dedicated to enhance motor recovery of the upper extremity after neurological disorders, such as stroke, spinal cord injury, and traumatic brain injury. Specific interests include robotic rehabilitation, breathing-controlled electrical stimulation, and spasticity.

Our department will continue to contribute to the body of scientific knowledge in these areas through lectures, articles, and other publications. We are also an integral part of the federally-funded Model Systems of Care for both Traumatic Brain Injury and Spinal Cord Injury based at TIRR Memorial Hermann.

Department of Psychiatry and Behavioral Sciences

The Department of Psychiatry and Behavioral Sciences is dedicated to the mission of education, research, and patient care.

Through education, we train the students, residents, and fellows of today to become the mental healthcare leaders of tomorrow – whether in public or private sectors, in solo or group practice, as researchers, educators, or clinicians.

In research, our faculty and staff are in the forefront of the exploration of the causes and treatments of mental illness.

In patient care, the Department of Psychiatry and Behavioral Sciences provides innovative approaches to the treatment of patients in public and private hospitals as well as in ambulatory care settings. Our skills and technology are balanced with compassion and respect for the patients we serve.

We also reach out to the community and provide educational programs and support public service activities of our faculty and staff who volunteer in many capacities for community-based professional and mental health advocacy organizations.

Members of the Department of Psychiatry and Behavioral Sciences constantly examine ways to improve the fulfillment of our missions – the processes, people and technology involved – and set new standards of excellence, ever striving for quality improvement. We also focus toward the realities of the future of healthcare. From both an educational and clinical viewpoint, we accept the challenge of demonstrating the cost-effectiveness of our mission.
The Department of Surgery and its divisions are committed to excellence in patient care, innovative research, and mentoring the next generation of surgeons.


Our location within the Texas Medical Center, the largest medical center in the world, gives our surgeons, researchers, and residents unique opportunities for collaboration and clinical experience.

Our department offers residency programs in General Surgery, Plastic and Reconstructive Surgery, Urology, and Colon and Rectal Surgery. Fellowships are offered in Surgical Critical Care, Trauma Research, Female Urology and Urodynamics, Minimally Invasive Surgery, Renal Transplantation, Plastic and Burns, and Pediatric Surgery.

The Department of Surgery and its divisions are involved in collaborative research efforts throughout the Texas Medical Center, including the Center for Translational Injury Research, the Trauma Research Center, and Nutritional Research.

Excellent clinical services are provided at Memorial Hermann - Texas Medical Center, Lyndon B. Johnson General Hospital, Methodist Hospital, St. Luke’s Episcopal Hospital, M. D. Anderson Cancer Center, Triumph Hospital, Park Plaza, Spring Branch Medical Center, TIRR Memorial Hermann, UT Physicians-Bellaire, Christus St. Catherine’s, Healthsouth, Pedi Woodlands Clinic, Smith Tower, Texas Liver Center, Twelve Oaks Medical Center, Ambulatory Surgery Center, and Bayshore Medical Center.

“We are a force to be reckoned with, and there is great work being done here.”

– President Larry Kaiser
Through the collaborative support of our friends, we are making a difference in the future of health care.
Editor’s note: Cynthia Mitchell died Sunday, Dec. 28, 2009.

George and Cynthia Mitchell and their children have founded a new $2.5 million center at the Medical School devoted to eradicating Alzheimer’s disease and related brain disorders.

The center, supported by The Cynthia and George Mitchell Foundation, seeks collaborations with leading experts in the field of neurodegenerative disease.

“These researchers are on the front line of testing treatments on patients,” says Claudio Soto, Ph.D., professor in the Department of Neurology. “They have all the inside information on what is happening. Some of the medications they are testing could be the next drug of choice for Alzheimer’s treatment.

“By having the Mitchell Center in the Texas Medical Center, we can bring together people who are now working in the clinical area, diagnostics, basic science and imaging,” says Soto, whose research involving brain disorders and protein misfolding is funded with several grants from the National Institutes of Health totaling almost $3 million annually. “We will put all our minds together to understand the disease mechanisms and develop novel treatments, faster means to diagnosis these diseases, and eventually eliminate Alzheimer’s and other related brain disorders.”

Alzheimer’s disease is a progressive, fatal brain disorder that destroys brain cells and leads to problems with memory, thinking, and behavior. According to the Alzheimer’s Association, as many as 5.3 million Americans have Alzheimer’s disease today, a number that is expected to increase substantially in years to come.

Oilman, developer, and Galveston historic preservationist George Mitchell and the foundation also have supported Alzheimer’s disease research at The University of Texas Medical Branch at Galveston (UTMB), Baylor College of Medicine, and Johns Hopkins University.

“I became interested in Alzheimer’s because Cynthia has it now. In the beginning, we hoped we would find
something for her. Alzheimer’s is such a terrible disease. We don’t have enough treatment help,” Mitchell says. “The most critical issue is to stop the dementia. Dying is not the bad thing; the loss of memory is. If we could get a test for it and get enough drugs in the pipeline to stop the dementia, it would be a huge breakthrough.”

Soto also emphasizes the need to find a faster way to diagnosis the disease before symptoms occur.

“We’re trying to find it before the brain damage, so that with good treatment, we could prevent or delay the disease process,” Soto says. “I really believe that’s reachable in 10 years. We need to understand the basic disease process and translate that into novel approaches for treatment and diagnostics.”

From 2001 through 2010 pledges, The Cynthia and George Mitchell Foundation has donated $18 million for Alzheimer’s disease research and treatment, says Meredith Mitchell Dreiss, president and treasurer of The Woodlands-based foundation and a research fellow at the Texas Archaeological Research Laboratory at The University of Texas at Austin.

“My parents didn’t use the word ‘philanthropy’ ever, but they were always helping people. We children were taught to help. We grew up feeling that’s the way you were, and we have communicated that to our children,” says Dreiss of her family’s strong heritage of giving. “I hope developing this center will lead to better collaborations in the future with other institutions, including Baylor and UTMB. Let’s solve Alzheimer’s disease.”

Sheridan Mitchell Lorenz is also passionate about finding ways to diagnosis the disease in its early stages and prevent or significantly delay its onset.

“We became very interested in Alzheimer’s disease research from our personal experience. As a family we have seen the impact on my mother, and we have felt the loss of the mother we knew, a brilliant and vibrant woman who should have had many wonderful memories of a full and productive life,” says Lorenz, president of G-1 Corporation, an affiliate of Mitchell Historic Properties. “Clearly, more research in Alzheimer’s disease is needed, not only because of the emotional and financial toll it takes on families, but also because of the enormous burden the disease will have on society as the current population ages. More research is needed to investigate causes, prevention, early diagnosis and clinical care.”

George Mitchell is hopeful. “I think in 10 years we will find ways to stop the dementia and diagnose people 10 years in advance of the disease,” he says.

“The most critical issue is to stop the dementia. Dying is not the bad thing; the loss of memory is. If we could get a test for it and get enough drugs in the pipeline to stop the dementia, it would be a huge breakthrough.”

– George Mitchell
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- DaVita Total Renal Care, Inc.
By the numbers

Fund-raising Commitments to the Medical School

Millions of Dollars

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* represents a transformational gift of $25M

Donations to the Medical School

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