TULANE & CHARITY: A HEALING TEAM

SOLVING TOUGH GENETIC PUZZLES

WHITE COATS FIT NEW CLASS
For 175 years, Tulane medical personnel have worked with Charity Hospital to fight diseases that plague the world while they heal the people of New Orleans—one patient at a time.

BY DIANA PINCKLEY

Dr. Warren Stone came from a poor Vermont family. He was on his way to New Orleans to seek his fortune when cholera and bad weather forced his ship into port in Charleston. There, he met Dr. Thomas Hunt, another young physician who was caring for the sick onboard. As they became close friends, Stone encouraged Hunt, who was from a wealthy South Carolina family, to come to New Orleans with him.

Stone continued on, arriving in the Crescent City with one picayune in his pocket—the Spanish coin worth six-and-a-half cents—and obtained a staff position at Charity Hospital. Hunt soon followed in his new friend’s footsteps and became a Charity house surgeon.

At the hospital—almost 100 years old at the time and in its fifth location, built in 1832 on the present Charity site—Hunt and Stone met Dr. John Harrison, from an old Maryland family with a tradition of medical practice, who was also caring for patients at Charity.

Each one of the three men was younger than 26, but their actions 175 years ago in writing The First Circular or Prospectus of the Medical College of Louisiana and establishing what would become Tulane University School of Medicine changed medical education and patient care in New Orleans and across America.

The trio recognized the need to study and treat “the peculiar diseases which prevail in this part of the Union,” including yellow fever and malaria, in 1834 when there were only 14 medical schools in the United States.

According to New Orleans’ Charity Hospital: A Story of Physicians, Politics and Poverty, written in 1992 by Tulane School of Medicine faculty member Dr. John Salvaggio and published by LSU Press, “The three founders realized that for the new medical school to function properly, it would need to be closely connected with Charity Hospital and its large and varied patient base.”

The Medical College of Louisiana began in the lower story of the hospital; its students were trained in patient wards on the second and third levels.

A HOSPITAL FOR THE POOR

By this time in 1834, Charity Hospital had been in existence for nearly a century. It was established by Jean Louis, a wealthy French shipbuilder who took note of the fact that access to the city’s only hospital was limited to military personnel and others in the service of the French king. He
devoted his estate to endow a hospital for the poor, which opened on May 10, 1736, at Chartres and Bienville streets in the French Quarter.

A "new" Charity was built in 1743 on the ship basin (now Basin Street), a third structure arose on that site in 1785 after the hospital was devastated by a hurricane a few years earlier and a fourth was constructed in 1815 on the site of the present-day Roosevelt Hotel.

Though it has historically had several different locations and a variety of names (at least in recent decades), Charity Hospital holds the record as the oldest continually operating hospital in the United States. At some points in its existence, it has also been the largest hospital under a single roof in the country.

Salvaggio writes that Charity has "survived the transfer of the Louisiana Territory from the French to the Spanish in 1762, a hurricane in 1779 that destroyed all but its kitchen and storehouse, a citywide fire in 1809, the stormy entrance of Louisiana into statehood in 1812, the hardships of the Civil War, the stresses of caring for today's ever-expanding patient load and some of the worst political squabbles and political patronage problems in the United States."

THE FIRST MEDICAL DEGREES IN THE SOUTH

The young American physicians who founded the Medical College of Louisiana came on the scene just a year after the Daughters of Charity religious order had taken over management of Charity Hospital in the hopes of resolving political conflicts. It was a dozen years after Paul Tulane had moved to New Orleans from his New Jersey home to found a retail and wholesale dry goods and clothing business and invest in real estate. And it would be half a century before Tulane would bequeath $1.25 million to found the university that bears his name, and the administrators of his fund would take control of the Medical College of Louisiana.

The first lecture at the new college was delivered in January 1835, by Dr. Hunt in the Strangers Unitarian Church; the initial class graduated in April, earning the first medical degrees to be conferred in the South.

1699
New Orleans settled.

1736
The first Charity Hospital opens.

1812
Louisiana becomes a state.

1834
Medical College of Louisiana founded, forerunner of Tulane.

1843
In return for land granted by Louisiana Legislature, Medical College of Louisiana faculty agree to provide free service for Charity patients for 10 years. Free service continues for more than a century.

1859
Charity, one of the largest hospitals in the world, has more than 1,000 beds, served by students from the Medical College of Louisiana, the fourth-largest medical school in the U.S.

1884
Paul Tulane endows a university that bears his name and includes the Medical College of Louisiana.
The actions of the school's founders did not go unnoticed by the French/Creole practitioners in the New Orleans medical establishment. "Three young Americans, new to the city, had announced they would found a new medical college with lectures entirely in English," writes Douglas R. Lincoln, a then-fourth-year Tulane medical student who in 2007 explored the history of Tulane and Charity for the Rudolph Matas Library. In addition, Stone and Hunt became house surgeons at Charity, shaping medical practices during their tenure and giving more weight to the commonly held impression of Americans 'taking over' medical education in the city.

The Creoles fought back by establishing their own Francophone Medical School of New Orleans in 1835, though it was short-lived. Another effort, the New Orleans School of Medicine, was founded in 1856. "The presence of these medical schools in association with the new Charity Hospital undoubtedly went a long way toward making Charity one of the great medical institutions at that time, not only of the United States but also of the world," Salvaggio writes.

In 1840, the Medical College of Louisiana rented a house next to Charity Hospital, so all medical lectures could take place in one room. Lincoln cites a prospectus of the day that "brags a fact that has held true for all of Charity's history: 'In the Surgical Department, the advantages of this College rank those of all others in the Union. The number of wounds, fractures, dislocations, and other injuries, and disease requiring the frequent exercise of Operative Surgery, admitted into the Wards of the New Orleans Hospital, will be found on examination to exceed that of any other in America.'"

Three years later, when organizers decided the college needed its own building, they petitioned the Louisiana legislature for land on which to build it. In return, they promised that Medical College of Louisiana faculty would take care of patients at Charity for free for 10 years.

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In The Beginning: The First Circular or Prospectus of the Medical College of Louisiana

The columns below replicate the exact language used by Medical College founders on 23 September 1834.

1st Because it is the largest and most populous town in the South West, and the most accessible to students.
2d Because its Hospitals which will be open to the undersigned for the purpose of instruction are the largest in the Southern and Western States: so that practical Medicine and Surgery can be taught at the bedside of the patient — the only proper place for their study.
3d Because the study of Anatomy can be prosecuted with more advantage, and at a cheaper rate here than in any other city in the U.S.
4th Because N.O. is so healthy during eight months in the year, that students can remain in it, and study the different types of disease at different seasons.
5th Because it is a commercial town, and more surgical accidents occur to seamen than to any other class of individuals, and its is consequently the best field for the study of Surgery in the South West.
6th Because in consequence of its great population, its hospitals are always filled with patients.
7th Because, as the undersigned pledge themselves, students can get board at $25 a month.

The Lecture of the Medil. Col. of La. will commence on the 1st Monday of January 1835, and will continue for four months from that day —
Thos. Hunt, M.D. Prof of Anat. & Physiology & Dean of the Faculty
Jno. Harrison, M.D. Adjunct
Chas. A. Luzenberg, M.D. Prof. Surgery
Thos. R. Ingalls, M.D. Prof. Chemistry
Edwin Balhurt Smith, M.D. Prof. Mat. Med.
Even though the building itself cost only $15,000, the free service lasted for more than a century, from 1843 until well into the 1960s. Salvaggio writes, "The medical school faculty have traditionally donated their services to Charity Hospital; this author has served 25 years as a professor at both medical schools and, like most other faculty members, has always made ward rounds at Charity, taught residents and students, and provided patient care in its clinics—with no payment for these services." He added that hundreds of other physicians have done the same.

In 1859, Charity Hospital had 1,000 beds, making it one of the largest hospitals in the world. It was served by students from the Medical College of Louisiana, which had grown to become the fourth-largest medical school in the nation, with an enrollment of more than 400. By the time the Civil War forced the school to close in 1863, it had over 1,084 graduates; an estimated 12 percent died or were seriously disabled as a result of the war.

The medical school reopened in 1865, when it played a significant role in advocating for the improvement of medical education and helped Louisiana become the first state to establish a board of health. Standards at Charity were also improving, in part due to the rising standards of the School of Medicine. Medical students lived inside Charity, spending days and nights in bedside teaching and ward rounds.

In Abraham Flexner’s landmark 1910 study of medical education, he rated Tulane as among the top seven schools in the nation. "It is unthinkable that Tulane could have received such a good rating had it not been for the wide variety of patients and the hands-on teaching provided by Charity Hospital," writes Salvaggio.

Tulane medical students and interns working in Charity Hospital got experience of a different kind in 1914, after bubonic plague was diagnosed in a Swedish sailor who landed in New Orleans. Rat patrols made up of Tulane medical students were sent out to check for evidence of rats and plague. Salvaggio writes: "Dr. George Hauser, one of the Tulane medical student ‘rat inspectors,’ recalled that his group received five or six 25-gallon garbage cans filled with dead rats every day. The rats were sterilized, dissected and checked for symptoms."

In less than two months, 80,000 rodents were trapped, killed and taken to the laboratory where Tulane medical students were waiting. This was estimated to be one-fourth of the total rodent population of New Orleans, and about 80 rats were found to be carrying the plague bacillus.

1894
Rudolph Matas, the father of vascular surgery, is named to the prestigious Chair of Surgery at Tulane. He came to New Orleans in 1878 to study medicine and work at Charity.

1910
Tulane ranks among the top seven medical schools in the nation.

1914
The Tulane Rat Patrol hits the streets to fight bubonic plague.

1931
LSU School of Medicine founded.

1939
The new Charity Hospital is complete. In 1936, three years before the new building’s opening, Charity’s admission rate exceeded that of Cook County in Chicago, Bellevue in New York and Los Angeles County Hospitals.
Despite rat patrols, living in colorful and sometimes dubious hospital circumstances and day-and-night duty riding ambulances through the streets of New Orleans, "an internship at Charity was extremely desirable—the goal of every student graduating from the Tulane or LSU medical schools," Salvaggio writes. "Almost all graduates wanted to intern at Charity because of its reputation."

Because the Charity interns earned only $8 a month in 1932, they were exempt from the "deduct" policy of then-governor Huey Long, who required each state employee to pony up, in cash, five to 10 percent of his or her salary. Unfortunately, residents enjoyed no such exemption.

Long was instrumental in establishing the LSU School of Medicine in 1931, nearly a century after the founding of the Medical College of Louisiana. Because Long wasn't willing to accept federal funds from the Roosevelt administration, however, plans for the construction of the sixth Charity Hospital—on the familiar Tulane Avenue site where Charity had been since 1832—were not begun until after his death from an assassin's bullet in 1935.

The building we know today opened in 1939. It was sorely needed; in 1936, the daily patient census at Charity was 2,781 in a hospital with 1,814 beds. Only a year later, Charity Hospital began its first modern postgraduate residency program.

**HOME TO MEDICAL BREAKTHROUGHS**

Joint research ventures between Tulane and Charity, often involving residents and interns as well as senior faculty, have led to many significant developments in modern medicine.

Dr. Rudolph Matas, a professor of surgery at Tulane, was the first to use spinal anesthesia in the United States and the first to surgically repair aneurysms. He developed the intravenous drip, identified that appendicitis could be treated by surgery, and was essential in identifying mosquitoes as the vectors of yellow fever. He was also known to deliver speeches sequentially in English, Spanish, French and Italian "without notes or manuscripts."

The blood samples that allowed Dr. Linus Pauling to pinpoint the cause of sickle cell anemia came from Charity Hospital, courtesy of famed Tulane cardiologist George Burch, a professional colleague.
Among other Tulane service research projects at Charity identified by Salvaggio (in addition to his own work on the causes of epidemic asthma and bagasseosis, a lung disease of sugarcane workers):
- The study of the effect of climate on cardiac disease and of the causes and treatment of cardiomyopathy by Burch.
- Perfecting and expanding local perfusion chemotherapy for malignant melanoma by Dr. Edward Kremetz and Dr. Oscar Creech.
- Brain-probe studies by Dr. Robert Heath that were the first to identify singular characteristics in the brains of schizophrenic subjects.
- Expanding on the role of niacin deficiency in pellagra by Dr. Grace Goldsmith, who also established minimum daily requirements for niacin and tryptophane.
- A study of the ability of glucan to enhance the body's defenses against infection, by Dr. Nicholas DiLuzio.
- The etiology, epidemiology and natural history of atherosclerotic heart disease by Dr. Gerald Berenson, culminating in the Bogalusa Heart Study which traces the long-term development of atherosclerosis from childhood to old age.

HEALING COMMUNITIES
The Tulane/Charity partnership continues. Tulane physicians and medical students worked to evacuate patients at Charity (now formally known as the Medical Center of Louisiana at New Orleans or MCLNO) through the trauma of Hurricane Katrina in 2005, which closed the hospital building on Tulane Avenue.

In 2008, almost 40 percent of the doctors treating patients at the Interim Public Hospital were Tulane University physicians, as were a similar proportion of the residents and fellows training there. (The Interim Public Hospital is the current name used for University Hospital, a part of MCLNO. Prior to Katrina, MCLNO operated Charity and University Hospitals.) Tulane Internal Medicine admitted 4,283 patients to the internal medicine and medicine subspecialty services last year. That number represented 41 percent of all adult admissions to the interim hospital in 2008, accounting for more than 15,000 days of inpatient care.

A new public teaching hospital is deemed vital to the city of New Orleans. The new iteration, now in the planning stages, will be the primary training ground for the state's next generation of doctors and a major healthcare provider for uninsured or underinsured patients throughout New Orleans. It is also predicted to be an economic engine for the city as well as a major medical research center for area universities. Studies have called a strong, modern academic teaching hospital critical to the training of the state's future physician workforce.

In August 2009, Tulane and LSU agreed with other partners on the composition of a board and management system for the new hospital; construction funding is yet to be determined from the federal government, the Federal Emergency Management Agency, the state and other sources.

"What captivates people about Charity is not so much the building itself, which is already the sixth building to carry that name, but rather what Charity stands for," writes Lincoln in the online history of the relationship between the Tulane and the storied public hospital.

"The ideals of humanism and caring for the most vulnerable in our society has long been a driving force in both medicine as a whole and Tulane University School of Medicine specifically. How these laudable goals emerge in the changing political and economic landscape of the twenty-first century is a story that is still unfolding."

READ MORE
Sources for this story include:
New Orleans' Charity Hospital: A Story of Physicians, Politics, and Poverty by Dr. John Salvaggio, LSU Press, 1992
Reflections: Looking Back on Our Past, Celebrating 170 Years, A Publication of the Office of Advancement, Tulane University Health Sciences Center, 2004
The History of Tulane University School of Medicine's Involvement with Charity Hospital
www.tulane.edu/~matas/historical/charity/charity.htm
by Douglas R. Lincoln, Fourth-Year Medical Student, Tulane University School of Medicine, April 2007; History of Medicine Elective Service Project for the Rudolph Matas Library, Tulane University Health Sciences Center, Dr. Elma LeDoux, Faculty Advisor

www.som.tulane.edu

1950
Charity has more than 3,000 beds.

1975
Tulane University opens Tulane Hospital and Clinic across from the School of Medicine and just down the street from Charity.

1990
Charity has about 500 residents on Tulane and LSU services.

2005
Hurricane Katrina and its aftermath result in Charity's closure.

2009
Discussions on a new hospital continue; agreement reached on board composition.