

BARROW

A Magazine for the Friends of Barrow Neurological Institute of St. Joseph's Hospital and Medical Center

BARROW NEUROLOGICAL INSTITUTE®

CELEBRATING 40 YEARS OF ACHIEVEMENT

Donors - starting with Charles Barrow - have built Barrow into one of the world's leading neuroscience centers

When brain specialists at University Medical Center in Tucson saw the ruptured aneurysm deep in Enrique Uzueta's brain, they told the child's parents that they knew of only one neuroscience center that might be able to help - Barrow Neurological Institute.

After Giuseppe Lanzino, M.D., completed medical school and a residency program in Italy, he applied for a fellowship in cerebrovascular disease at Barrow because "it's definitely the best place to learn how to approach this type of problem."

When David Treiman, M.D., a leading epilepsy specialist and researcher at the Robert Woods Johnson Medical Center, was approached about a position at Barrow, he accepted it because "I view this as an almost unique opportunity to build a world-class epilepsy program."

How has Barrow, which celebrated its 40th anniversary in November, reached neuroscience preeminence in such a short period of time? Why does Barrow attract patients, physicians, researchers and residents from around the world?

"The secret to Barrow's success is the three-legged stool - and the donors who have supported us through the years," says Phil Pomeroy, vice president of Neuroscience.

The three-legged stool is the metaphor John Green, M.D., Arizona's first neurosurgeon and Barrow's first director, used in planning Barrow. Dr. Green believed that each leg of the stool - clinical care, medical education and research - must be in place to create a true institute where physicians, nurses, researchers, medical students and other healthcare professionals collaborate to build our knowledge of medicine.

"Barrow's focus on innovative patient care, medical education and research creates a true learning environment that is absolutely critical to the advancement of neuroscience," says Phil.

At Barrow, each leg of the stool both supports and depends upon the other two. When all three are in perfect balance, physicians, researchers and residents are able to maximize their efforts to understand disease and improve medical technology and techniques. The result is constantly evolving and improving patient care.

Barrow's commitment to clinical innovation, research and medical education carries a high price. And that is why donors are so important to the institute.

"Without donors, there would be no Barrow Neurological Institute," says Robert F. Spetzler, M.D., director of Barrow. "Charles Barrow's generous gift in 1959 made Barrow possible, and through the years, donors have enabled us to recruit leading specialists, acquire cuttingedge technology and conduct promising research."

This issue of Barrow Magazine will take a look at Barrow's past accomplishments and future direction. It is dedicated to all the donors who have helped make Barrow one of the world's leading neuroscience institutes.

1958 - Charles Barrow donates \$1.2 million to St. Joe's for construction of a neuroscience center. The Sisters of Mercy raise another \$585,000 and obtain \$500,000 in Hill-Burton funds through the Arizona Department of Health.

1959 - The Neurological Sciences Foundation is established to raise funds for research and medical education at Barrow. Its name is changed to Barrow Neurological Foundation in 1968.

1961 - The Neurosurgery Residency Program receives accreditation from the American Board of Neurological Surgery.

1962 - Barrow opens. It is one of only three neuroscience institutes in the entire country. John Green, M.D., Arizona's first neurosurgeon, serves as Barrow's first director. The five-story building has 50 patient beds.

1965 - Mrs. Paul Case is asked to organize a group of women into the Women's Board of Barrow Neurological Foundation. The group's first

fundraiser, a masked ball at Casa Blanca Inn on New Year's Eve 1965, nets \$26,000. Since then, the Women's Board has raised more than \$17 million for research and special projects through the annual Barrow Ball.

1966 - Microneurosurgery is performed at Barrow for the first time.

1967 - The Neurosurgical Research Lab is established with funds from the Women's Board.

1970 - A \$3-million expansion, funded in part by the community, adds three stories and brings Barrow's bed count to 114.

1974 - The first annual Barrow Symposium is held with 250 neurologists and neurosurgeons from across the country and Canada and Mexico attending.

1975 - The Women's Board funds the construction of the Neuropathology Research Laboratory.

Barrow acquires a computerized axial tomography (CAT) scanner, the first in Phoenix (right).

1976 - The Microneurosurgical Lab is established with funding from the Women's Board.

The family of a former patient establishes a \$2 million endowment fund for the Division of Neurobiology.

1978 - The James R. Atkinson Pain Research Endowment Fund is established.

1979 - The Neurorehabilitation Unit opens.

1981 - The Multiple Sclerosis Clinic is established.

1983 - The J.N. Harber Foundation endows the Chair for Neurosurgery, enabling Barrow to recruit Robert F. Spetzler, M.D.

The Stroke Center opens.

1984 - The Neurological Rehabilitation Day Hospital opens. Its name is changed in 2002 to the Center for Transitional Neuro Rehabilitation.

1986 - Dr. Green retires, and Dr. Spetzler succeeds him as the director of Barrow. Barrow researchers, led by Joseph Zabramski, M.D., refine the cardiac standstill procedure for use in treating previously inoperable cerebrovascular disease.

1987 - Endowment funding for the A.B. and Anne Merete Robbs, Jr. Stroke Prevention, Treatment and Research Center is completed.

1989 - The Kemper and Ethel Marley Chair of Neurology is established, enabling Barrow to recruit William Shapiro, M.D., formerly of the Sloan Kettering Institute of Cancer Research.

The Epilepsy Monitoring Unit opens for the diagnosis of seizure disorders.

Former first lady Nancy Reagan dedicates the Dr. Loyal and Edith Davis Neurological Research Laboratory in honor of her parents. Her father served as interim director of Barrow in 1965-66.

1989 - The Parkinson Disease and Information and Referral Center is established.

In 1997, the center is renamed the Muhammad Ali Parkinson Research Center in honor of Muhammad and Lonnie Ali, supporters of the center.

Volker Sonntag, M.D., Robert Spetzler, M.D., and Harold Rekate, M.D., make international headlines by successfully reattaching the skull of Timothy Mathias, a boy whose skull was severed from his neck in a bicycle-car accident.

1992 - Curtis A. Dickman, M.D., pioneers spinal thoracoscopy, a method of operating on the spine using endoscopic tools through small incisions in the chest. Harold Rekate, M.D., receives the prestigious Pudenz Award for Excellence in Research of Cerebrospinal Fluid Physiology.

1993 - The Barrow Balance Center, under the direction of Terry Fife, M.D., opens as a multi-disciplinary center for the treatment of balance disorders and vertigo and becomes one of the busiest such centers in the country. Volker Sonntag, M.D., performs neck surgery on the wife of King Fahd of Saudia Arabia.

1994 - Robert Spetzler, M.D., receives neurosurgery's highest recognition: Honored Guest of the Congress of Neurological Surgeons. He is the youngest surgeon to receive the honor.

1995 - Barrow surgeons, led by Robert Spetzler, M.D., perform the world's first cardiac standstill on a pregnant woman. Cheryl Jones delivers a healthy boy several months later.

1997 - Barrow opens the first Gamma Knife Center in Arizona. Today, the center, under the medical direction of neurosurgeon Kris Smith, M.D., is still the only one in the state and one of only 71 nationally and 169 internationally. The 70,000-square-foot Neuroscience Research Center, funded in part by donors, opens with labs dedicated to neuro-oncology, neurobiology, neurochemistry, neurogenetics, pain research and epilepsy research.

1999 - U.S. News and World Report recognizes Barrow as one of the 10 best neuroscience centers in the U.S. Barrow researchers, led by Eric Johnson, Ph.D., and Joseph Zabramski, M.D., contribute to the Human Genome Project by identifying the gene that causes the inherited form of cerebral cavernous malformations.

2000 - A fund to endow the Ina Levine Brain Tumor Center is established.

Cambridge University honors A.D. "Bud" Craig, Ph.D., for his research showing that specific neural pathways carry sensations from peripheral nerves up the spinal cord to the brain.

The Karsten Solheim Dementia Research Chair is endowed.

The Neuroendocrine Clinical Conference is established by William L. White, M.D., providing a monthly format for a specialized team approach for patients with difficult pituitary tumors and other neuroendocrine disorders.

2001 - The Neuromuscular Research Center is created under the direction of Dr. Kumaraswamy Sivakumar. The Muscular Dystrophy Association (MDA) recognizes the MDA Clinic at Barrow as an MDA-ALS Center, one of only 24 in the country.

George Prigatano, Ph.D., is awarded the Newsome Chair of Neuropsychology, an endowed chair funded by Mercy Healthcare UK.

The Annette and Harold Noren Stroke Intensive Care Unit opens.

John Bodensteiner, M.D., a leading pediatric neurologist from the Indiana University School of Medicine, joins Barrow as the Chair for Pediatric Neurology.

Volker Sonntag, M.D., receives the Alumni Spine Chair, endowed by colleagues, former students and patients in recognition of his contributions to spine surgery.

2002 - The John and Betty Van Denburgh Chair is established. Timothy Vollmer, M.D., a leading multiple sclerosis clinician and researcher at Yale University Medical Center, is appointed to the chair and named the Chairman of the Division of Neurology.

David Treiman, MD, a leading epilepsy clinician and researcher formerly at the Robert Wood Johnson Medical School in New Jersey, joins Barrow as the Newsome Chair in Neurology and the director of the Epilepsy Center.

Volker Sonntag, M.D., the Chief of the Spine Section, receives neurosurgery's highest recognition: Honored Guest of the Congress of Neurological Surgeons.

A team of Barrow neurosurgeons, led by Robert Spetzler, M.D., performs cardiac standstill on Chase Meseroll, 5, the youngest patient to ever undergo this procedure.

The First Barrow Pituitary Symposium, directed by Daniel S. Duick, M.D., and William L. White, M.D., is held.

A state-of-the-art 3 Tesla (3T) MRI is installed. This imaging system has twice the power of other MRI units, enabling neuroradiologists to obtain more finely detailed images.

BARROW'S FUTURE

Beyond Our First 40 Years

Barrow Neurological Institute will continue to focus on innovation in patient care, medical education, and basic and clinical research.

"Our goal is to constantly push the boundaries of medicine, to define the cutting edge, and thus to improve patient care," says Robert F. Spetzler, M.D., director of Barrow.

Specifically, Barrow will:

- Build its Neurology Division into a world-class program, using the Neurosurgery Division as a model.
- Continue exploring promising new technologies and therapies.
- Increase the collaboration among physicians, researchers and other members of the Barrow team, thus accelerating new discoveries and advancements.
- Ensure the long-term stability of Barrow's programs through endowments and other giving opportunities managed by Barrow Neurological Foundation.

The next section of Barrow Magazine highlights these directions.

Barrow's 40th Anniversary

'When healthcare professionals ask me the secret to Barrow's success. I tell them it is not only our commitment to teaching, research and clinical care. It is also something each Barrow staff member carries within: the willingness to try something new, the drive to expect more from ourselves and our patients, and the commitment to share everything we know with others for the good of neuro patients everywhere.'

- Julie Ward, R.N.,
director of Neuroscience