



NEWS RELEASE

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**Barrow Physicians Chronicle Neuroscientific Contributions
of Histologist Vladimir Betz in *Brain***

(Phoenix, AZ December 7, 2011) -- A team of physicians and scientists at Barrow Neurological Institute, in collaboration with colleagues in the Ukraine, have written a first-of-its-kind biography of Ukrainian anatomist and histologist Vladimir Betz. The article, "The Discovery of the Pyramidal Neurons: Vladimir Betz and a New Era of Neuroscience," appears in the November 2011 issue of the medical journal, *Brain*.

Among other contributions, Vladimir Alekseyevich Betz (1834-1894) is best known for his discovery of Betz cells, giant pyramidal neurons located in the primary motor cortex, and their function with cortical organization. The discovery of these cells and their function was a turning point in the prevailing philosophical and scientific approach to the brain, linking cytoarchitecture, neurophysiology and cerebral localization. In addition, Betz revolutionized methods of cell fixation and staining.

"Betz was an unsung hero whose seminal work allowed the integration of various separate parts of neurological results into what we know today as our modern system of neuroscience," says Mark C. Preul, MD, Newsome Family Endowed Chair of Neurosurgery Research at Barrow. "This article documents his contributions and work, alongside, for the first time in publication, color images of his brilliant histological sections."

The article was a collaborative work between Barrow's Dr. Preul and Sergiy V. Kushchayev, MD, and scientists and neurosurgeons at the Bogomolets University of Kiev in Kiev, Ukraine.

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About Barrow: Barrow Neurological Institute of St. Joseph's Hospital and Medical Center in Phoenix, Arizona, is internationally recognized as a leader in neurological research and patient care and is consistently voted as among the Top 10 hospitals for neurology and neurology in the United States. Barrow treats patients with a wide range of neurological conditions, including brain and spinal tumors, cerebrovascular conditions, and neuromuscular disorders. Barrow's clinicians and researchers are devoted to providing excellent patient care and finding better ways to treat neurological disorders.