Dr. Jessica Wilden Inaugurates Surgical Movement Disorder Clinic

Dr. Jessica Wilden recently joined University Neurosurgery at LSU Health Shreveport as Assistant Professor and Director of the Stereotactic and Functional Neurosurgery. She comes to Shreveport after completing a surgical movement disorders fellowship at the University of California San Francisco (UCSF), which is home to a renowned and internationally-recognized surgical movement disorder center. She earned her medical doctor degree from Mayo Clinic College of Medicine in Rochester, Minn.

Dr. Wilden brings an improved specialty to the department, expanding the versatility of surgical treatments provided by University Neurosurgery. She has put together a multi-disciplinary team including neurosurgeons, neurologists, neuropsychologists, and neurophysiologists from LSUHSC-Shreveport who offer specialized treatment for patients suffering from movement disorders. Dr. Wilden offers Deep Brain Stimulation (DBS) for patients with neurological conditions like Parkinson’s disease, essential tremor, and dystonia. DBS provides therapeutic benefits for otherwise treatment-resistant movement disorders. Patients with these conditions who undergo DBS can exhibit improvement in all aspects of their lives.

Dr. Wilden is currently seeing movement disorder patients at the new University Neurosurgery clinic located at 1811 East Bert Kouns, Suite 200. Appointments can be made by contacting the clinic at 318-795-2638.

Dept. of Neurosurgery Opens New Clinic at Willis-Knighton Pierremont

University Neurosurgery opened the doors to its new clinic location at Willis-Knighton Pierremont Medical Arts Building in May. The new office is located at 1811 East Bert Kouns, Suite 200, in Shreveport and features nearly 10,000 square feet of revamped space for our doctors and their patients. All the physicians from the University Neurosurgery team, Drs. Nanda, Smith, Guthikonda, Sin, Notarianni, Wilden, and Missios will hold their clinics here throughout the week, creating a more unified practice and easier access for patients. Previously the clinic locations varied per physician, which made it harder for patients to find and contact their doctors or doctors’ support staff.

“It’s very clean and easily accessible,” said Jackie Shively, a patient from Baton Rouge. “It’s just a nice environment and easy to get around.”

The doctors’ support staff will also be housed at this new location. The physician assistants and nurses will be accessible to patients here on the same days that the physicians hold clinic for patients. Another benefit of the new office is the expanded waiting room space for patients. A television paired with ample seating room makes the new waiting area more accommodating and comfortable. Along with this new convenient location, patients are able to discuss billing issues one-on-one with our billing personnel, as well as meet with a scheduling coordinator for future appointments, tests, or referrals.

Willis-Knighton Pierremont Medical Arts Building is open Monday-Friday 8:30 a.m. to 5 p.m. To contact the clinic, call 318-795-2638.
Greetings from University Neurosurgery and LSU Health Shreveport. The spring has brought forth many changes, including the opening of our new clinic at Willis-Knighton Pierremont. I’m excited about this nearly 10,000-square-foot, updated space. Not only will our larger waiting rooms and updated exam rooms help us to better serve our patients, but expanded office space will give our clinical staff the resources they need. I am thrilled to have a central location for University Neurosurgery's clinic, creating a unified practice for both patients and staff.

We're delighted that the movement disorder clinic headed by Dr. Wilden has now had several patients with both awake and asleep deep brain stimulation for Parkinson’s, and the program is going well.

I am happy to welcome Dr. Symeon Missios to our staff. Dr. Missios completed his neurosurgery residency at Dartmouth-Hitchcock Medical Center in New Hampshire. He comes to UN from the Cleveland Clinic, where he recently completed his Neurosurgical Oncology fellowship. Dr. Missios will help our team by providing expanded cancer treatment and care.

We also welcomed two new residents in June. Matt Hefner graduated from LSU Health Sciences Center here in Shreveport, and Patrick Paullus graduated from the University of Texas Southwestern in Dallas.

With these additions, we continue to provide neurosurgical care to the entire state and the Ark-La-Tex region. If you have any questions, kindly feel free to call me. Thank you.

Wishing you a happy and productive summer!

Sincerely,

Anil Nanda, MD, MPH, FACS
Professor and Chairman
Department of Neurosurgery

Recent Publications


Department of Neurosurgery Receives Stroke Research Grant

University Neurosurgery Associate Professor Dr. Guohong Li was awarded a nearly $1.6 million grant from the National Institute of Health-National Institute of Neurological Disorders and Stroke (NIH-NINDS).

Dr. Li received the grant because of his stroke research and will use the funds to investigate immune mechanisms of ischemic stroke. Ischemic strokes, also known as clots, are the most common form of stroke. They are caused by an obstruction in a blood vessel, cutting off blood supply to the brain. Dr. Li’s team aims to investigate spleen immunocytes, cells in the spleen that produce antibodies, in stroke-mediated brain injury.

Dr. Li also received an award from the American Heart Association (AHA) to research a new therapy strategy for acute ischemic stroke with specific enzyme inhibitions.

Dr. Li’s laboratory primarily studies inflammation and immunity in animal models, studying those with ischemic stroke, traumatic brain injury, carotid artery stenosis and aortic aneurysms. His team is supported by NIH, AHA, and other organizations.

World-Renowned Neurosurgeons Headline 2nd Annual Colloquium

Three international neurosurgeons spoke at the second-annual Woodard Symposium on Oct. 16, hosted by University Neurosurgery. The symposium brings in international neurosurgeons to create an intercontinental colloquium for physicians, physician’s assistants, and other health professionals.

Head of the Department of Neurosurgery at Carlos Haya University Hospital, Miguel Arraez, MD, PhD, presented “Surgical Approaches to Brainstem Tumors.” Dr. Arraez works in Malaga, Spain.

Remberto Burgos de la Espriella, MD, is the Neuroscience Department Chairman at Clinica Nueva in Columbia. He delivered the presentation “The Cost of Violence in Latin America.”

Fred Gentili, MD, MSc, FRCSC, FACS, is the Director of the Skull Base Center at the University of Toronto in Canada. He spoke about “The Evolution of Skull Base Surgery: From Open to Endoscopic Techniques – Current Indications, Limitations and Results.” Presentations began at 3:00 pm at LSU Health Shreveport and concluded at 6:00 pm. A reception honoring the international neurosurgeons followed at The Shreveport Club.

The Department of Neurosurgery at LSU Health Shreveport hosts the Woodard Symposium every fall. International neurosurgeons are invited as guest lecturers with a goal to bring fresh insight to the medical community. The symposium is made possible by the Scotty and Larene Woodard Professorship. Thanks to the Woodards, who started the professorship following Larene’s surgery at LSU Health Shreveport to keep her aneurysm from bursting, medical professionals and interested community members can learn and share with visiting lecturers.
University Neurosurgery’s multidisciplinary team is pleased to serve you and your patients in the following locations:

**Clinics**

LSU Health Shreveport (ACC)
1501 Kings Highway
Shreveport, LA 71103
p: 318.813.2482, f: 318.813.1556

Willis-Knighton Pierremont Medical Arts Building
1811 E. Bert Kouns, Suite 200
Shreveport, LA 71115
p: 318.795-2638, f: 318.675.6861

Gamma Knife Radiosurgery
1501 Kings Highway
Shreveport, LA 71103
p: 318.675.6195, f: 318.675.8944

NeuroInterventional Surgery
1501 Kings Highway
Shreveport, LA 71103
p: 318.675.6195, f: 318.675.8944

**Administrative Main Office**

University Neurosurgery
LSUHSC - Shreveport, Dept. of Neurosurgery
1501 Kings Highway, PO Box 33932
Shreveport, LA 71130-3932
p: 318.675.6404, f: 318.675.6867

Billing Office: 318.675.8408
Business Office: 318.675.8299
Editorial Office: 318.675.5392
Nursing Office: 318.795.2638, option 4

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**Department News:**

**University Neurosurgery Welcome New Faculty Member**
Dr. Symeon Missios joined University Neurosurgery as an Assistant Professor in July. Dr. Missios completed his neurosurgery residency at Dartmouth-Hitchcock Medical Center in New Hampshire and is coming to UN from the Cleveland Clinic where he recently completed his Neurosurgical Oncology fellowship.

**Welcome New Residents**
University Neurosurgery’s new PGY-1 residents, Matt Hefner and Patrick Paullus, began orientation in June. Hefner earned his medical doctor degree from LSU Health Sciences Center – Shreveport. Paullus earned his medical doctor degree from University of Texas Southwestern in Dallas.

**Awards and Honors**
Richard Menger, MD, PGY-4, was published in the Wall Street Journal in December with a letter he wrote called “Don't Treat Doctors like Commodities.” His letter was in response to an op-ed piece by Michael J. Boskin, “ObamaCare's Troubles Are Only Beginning.” You can view his contribution here: http://online.wsj.com.

David Connor, DO, recent residency graduate, received an award from the Southern Neurosurgical Society this spring for a manuscript he authored, “Tonic Contractility of Cultured Human Brain Vascular Smooth Muscle Cells (HBVSMC): An In Vitro Model of Post-Subarachnoid Hemorrhage (SAH) Vasospasm: Effects of Formed Human Blood Elements.” Connor was selected to receive the 1st Place Basic Science Award at the 65th Southern Neurosurgical Society Annual Meeting.

Shyamal Bir, MD PhD, Research Fellow, received the 1st Place Electronic Poster in the History Category for “Dr. Odilon Marc Lannelongue (1840-1911) and Strip Craniectomy for Craniosynostosis in Children” at the AANS Meeting in San Francisco in April.

Jai Deep Thakur, MD, PGY-2, received 2nd Place for his Electronic Poster at the AANS Meeting in April for “Maximilian (1868-1939) Behind the Sternberg’s Canal & His Contribution to Current Day Endoscopic Skull-Base Anatomy.”

**Neurosurgery Faculty Member Becomes Board Certified in Radiology**
Hugo H. Cuellar, MD, an Assistant Professor of Neurosurgery and Radiology in Interventional Neuroradiology, received his board certification in radiology.

Dr. Cuellar completed an internship and his residency program in radiology at the University Hospital Jose E. Gonzalez in Mexico before entering a visiting fellowship in neuroradiology at Louisiana State University Health Sciences Center in New Orleans, La. He then completed an interventional neuroradiology clinical fellowship at the Hospital Nuestra Señora del Rosario in Madrid, Spain.

He has been a board member of the IberoAmerican Society of Neuroradiology for several years and worked as Professor of Radiology at the University of Nuevo Leon, Mexico before joining LSU Health Shreveport School of Medicine faculty in 2010.
Tumors that arise from the supportive cells of the brain (glial cells, from the Greek word for “glue”) are called gliomas. Gliomas are graded to describe their degree of aggressiveness and rate of growth. The most common grading system uses a scale of I to IV. Glioblastoma is the highest grade glioma (grade IV) and the most malignant form.

The first step in the treatment of high grade gliomas (grade III and IV) is surgery. The goals of surgery include obtaining tumor tissue for diagnosis to guide treatment and removing as much tumor as possible to reduce the symptoms caused by its presence. In certain cases, the location of the tumor in the brain or the overall health of the patient preclude surgical resection, and a limited biopsy may be done. In general, performing a surgical resection provides a larger number of cells, which could improve the accuracy of diagnosis and affect further management. While the goal is to remove as much of the tumor as safely possible, some tumors cannot be completely removed due to their deep location or proximity to “eloquent” brain regions (areas controlling movement, sensation or speech). In those cases, partial tumor removal can be performed to decrease the symptoms caused by the tumor.

Surgery to remove a brain tumor is performed by making an opening in the skull over the tumor (craniotomy). Specialized imaging such as white matter tractography and functional MR imaging help determine vital areas in the brain that should be avoided. Stereotactic image-guided navigation systems are used as navigational tools (much like a GPS system) and provide surgical guidance, allowing less-invasive approaches, improved extent of resection, and reduction in surgical morbidity. High-powered microscopes are often used and provide improved visualization of the tumor.

Gliomas grow into the surrounding tissue by extending cellular projections, like tentacles, and cannot be completely removed by surgery. However, surgery is important because tumor resection establishes the diagnosis, helps decrease symptoms, and can improve survival and quality of life. Radiation, chemotherapy, and/or targeted biotherapy are then used to treat the remaining tumor.

Figure 1. MRI of the brain showing a right frontotemporal glioblastoma, enhancing after contrast administration.

Figure 2. Surgical planning view, showing the relationship of a frontal tumor (orange) to the descending motor tracts (green) after white matter tractography.
Occult spinal dysraphism (OSD), or "spina bifida occulta," is a set of disorders arising from incomplete formation of dorsal midline structures during embryogenesis. The true incidence of these disorders is unknown; however, up to 30% of the general population will have some evidence of bony spine defect on x-ray. Unlike open neural tube defects like myelomeningocele, these closed defects are not related to a lack of folate supplementation during pregnancy. In fact, there are no identified risk factors for OSD. Occult spinal dysraphism encompasses a wide variety of findings from failure of lamina to fuse posteriorly to lipomyelomeningoceles. However, certain dysraphisms can produce symptoms in patients by causing a tethered cord syndrome.

Tethered cord syndrome is a functional disorder caused by stretching of spinal cord with its caudal end fastened by an inelastic structure. The end of the spinal cord is known as the conus medullaris. At the end of the conus there is a fibrous band known as the filum terminale, which extends to the end of the spinal column to the coccyx. As infants and children grow, the spinal cord ascends within the spinal column. Thus, at birth, the conus terminates around L2, but by 3-6 months of age, the conus will ascend to a level of L1. However, if an anchoring structure, such as a lipoma or dermal sinus tract is present, it can tether the filum and conus, preventing this normal ascension. As the child continues to grow in height, further traction and stretching is placed on the spinal cord. This can produce a variety of symptoms in patients. Infants and toddlers may have delays in walking, foot asymmetries, difficulty in toilet training, or chronic constipation. Older children may complain of back and leg pain, asymmetrical motor and sensory changes, enuresis, and hyperreflexia.

A detailed physical exam is the key to detecting occult spinal dysraphisms early that could produce a tethered cord syndrome. Cutaneous and orthopedic signs and symptoms are highly prevalent in these patients. A close inspection of the lumbo-sacral skin for any signs such as, hypertrichosis, midline skin dimples, subcutaneous lipomas, dermal sinus tracts, or hemangiomas should be performed. In addition, detail to any notable foot deformities or leg/buttock asymmetry should be recorded. Urologic symptoms can be missed in the young child, but frequent UTIs or chronic constipation may be a clue to a tethered cord. Imaging studies should be performed in any infant or child in which an occult spinal dysraphism or tethered cord is suspected. In infants, an ultrasound of the spine can be performed; however, the results can be limited by the technologist and radiologist experience. The gold standard is MRI, as this is the most sensitive at detecting intradural lesions which have the highest risk of tethering.

Treatment for occult spinal dysraphism is varied. Minor bony abnormalities with no evidence of instability or associated tethering intradural lesions usually need no intervention. Abnormalities that are tethering the spinal cord or have the ability to do so should be referred to neurosurgery for surgical resection. Even asymptomatic infants and children should be referred for evaluation, as surgical intervention is often recommended to prevent loss of function.
Christopher Storey, MD  
PGY IV Resident

A female in her 40s went to an outside hospital, complaining of a steady throb in the right side of her head. The throbbing was abrupt and sudden, but did not affect mental status. The patient, having known previous history of aneurysm surgery, was recently examined prior to the throbbing, finding a recurrence of the left aneurysm and a new larger aneurysm on the right side. The plan was to perform surgery on the right middle cerebral artery aneurysm and an endovascular treatment for the left middle cerebral artery aneurysm. After undergoing a CT Head scan, the patient suffered from a questionable subarachnoid hemorrhage.

The patient was then transferred to LSU Health Sciences Center. Doctors reviewed her CT head scan, showing hyperdensity around the right middle cerebral artery aneurysm. After talking with the patient and her family, the staff decided surgery to clip the aneurysm was essential.

Once operation began, the surgeons discovered a complex lobulated and partially calcified aneurysm at the right middle cerebral artery. The surgeons used four clips to secure the aneurysm. After surgery, the patient went to the neurosurgical intensive care unit where her headache improved. Postoperative studies showed complete obliteration of the aneurysm. After healing well, the patient was able to go home five days after surgery.

Case of the Month:

Fig. 1: 3D reconstruction of digital subtraction angiography. Shows large Right middle cerebral artery aneurysm.

Fig. 2: Axial view of CT Angiography showing location of right right middle cerebral artery Aneurysm on the brain.

Fig. 3: 3D reconstruction of digital subtruction angiography showing occlusion after surgical clipping.

The Ethics of Informed Consent

Susan L. Steen, MPAS, PA-C  
Senior Physician Assistant

Informed consent is defined as “a process for getting permission before conducting a healthcare intervention on a person.” The healthcare provider may ask for consent to perform a surgical procedure or perhaps enroll a patient in a clinical trial. In all types of informed consent it is up to healthcare providers to follow ethical guidelines.

Healthcare professionals can sometimes take their medical expertise for granted, expecting patients to understand implications of surgery and treatment. Many healthcare professionals are guilty of thinking, “How could you not understand?” We forget that though this information is second nature for us, a patient could be undergoing his or her first surgical procedure.

Patients rely on our expertise and ability to explain their procedure in terms they can understand. This allows them to give informed consent, knowing all the risks and benefits involved.

It is vital as healthcare providers to ensure patients understand all aspects of their procedures before they “sign on the dotted line.”

informed consent: permission granted in the knowledge of the possible consequences, typically that which is given by a patient to a doctor for treatment with full knowledge of the possible risks and benefits.
Palestinian Woman Travels to Shreveport for Life-Saving Surgery

As many of our physicians and medical staff offer their professional services through medical mission trips around the world to provide care and treatment, one woman’s journey brought her to Shreveport to receive life-saving surgery as a result of a medical mission. What began as one neurologist’s mission, with the assistance and teamwork of more, the journey ended with a grateful patient, family, and community.

Dr. Fayez Shamieh, a neurologist out of Lake Charles, La., was participating with the Physicians for Peace organization. The organization was visiting Palestine, where Dr. Shamieh consulted Sawasan Asbah, a lifelong resident of Ramallah, Palestine. Asbah was experiencing disabling dizziness and headaches. A MRI revealed a massive frontal lobe brain tumor, nearly the size of an apple. After consultation with a local expert in her area, it was determined that surgery to remove the tumor would be too difficult. Dr. Shamieh contacted his friend and colleague, Dr. Anil Nanda, regarding him as the best neurosurgeon in the world.

After reviewing pictures of the MRI, Dr. Nanda immediately offered to perform the surgery, even willing to waive the surgery fee for the Asbah family.

Within a short period of time and with the assistance of Dr. Nanda and Dr. Shamieh and others, Asbah underwent specialized surgery at University Health to resect the tumor. Dr. Nanda put together a specialized team to perform the procedure.

Abash's husband and family from Palestine and Canada were able to be at her side prior to the surgery and assist with recovery. Members of the community outpoured support to aid her and her family. Dr. Nanda said, “It was just one of those acts of kindness we all should do…we're here to help each other because we're only on this planet a short time, and if we can help someone, that’s a profound blessing.”

Asbah credits “God’s help and …I’m really thankful for everyone who helped; they are great people.”

With the help of Dr. Shamieh and Dr. Nanda, University Neuro-
surgery worked to lessen the cost, allowing Asbah and her family to travel to Shreveport for the procedure.