

# NEWSOUTH NEUROSPINE Mississippi's Spine Center

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# DIVISION OF SURGERY 601.936.0400

Eric Amundson, MD Philip Azordegan, MD John D. Davis, IV, MD Jack Moriarity, MD W. Lynn Stringer, MD Matthew VanLandingham, MD E. Greg Wood, III, MD Kelsey A. Walsh, MD

# DIVISION OF SPINAL INTERVENTION 601.664.1213

Jeff Laseter, MD Jeff Summers, MD

# DIVISION OF PHYSICAL MEDICINE 601.420.1930

David Collipp, MD Rahul Vohra, MD Michael Winkelmann, MD

# Jack Moriarity, M.D.

#### **EDUCATION**

**UNDERGRADUATE** Stanford University

Bachelor of Science with Honors, Chemistry Bachelor of Science with Honors, Biology

September 1985 - June 1990

MEDICAL SCHOOL Stanford University School of Medicine

Doctor of Medicine, June 1990 - June 1995

#### **TRAINING**

July 1995 - June 1996 Intern, General Surgery

Johns Hopkins

July 1996 - June 1997 Junior Resident, Neurosurgery

Johns Hopkins

July 1997 - June 1998 Senior Resident, Neurosurgery

Johns Hopkins

July 1998 - Oct 1998 Chief Resident, Pediatric Neurosurgery

Johns Hopkins

Nov 1998 - Feb 1999 Chief Resident, Functional Neurosurgery

Johns Hopkins

March 1999 - June 1999 Chief Resident, JHBMC Neurosurgery

Johns Hopkins

July 1999 – June 2001 Neuro-oncology Research Fellow

Johns Hopkins

## **HOSPITAL APPOINTMENTS**

1997 - present Mississippi Methodist Rehabilitation Center

Jackson, Mississippi

2006 - present River Oaks Hospital

Jackson, Mississippi

2014 - present St. Dominic Hospital

Jackson, Mississippi

## PROFESSIONAL EXPERIENCE

June 2001 – June 2002 Instructor, Adult and Pediatric Neurosurgery

Johns Hopkins

July 2002-present Private Practice: Neurosurgeon

NewSouth NeuroSpine, LLC

Flowood, Mississippi

#### **CERTIFICATION AND LICENSURE**

Nov 9, 2006 American Board of Neurological Surgery, Board Certified

July 9, 2002 State of Mississippi, Medical License, Conferred (No. 17703)

### LEADERSHIP POSITIONS

Jan 2011-Jan 2013 President, Mississippi Neurosurgical Society
Oct 2011-present Director, Neurosurgical and Spine Service, ROH
April 2008-April 2013 Chief, Division of Surgery, NewSouth NeuroSpine
April 2008-April 2013 President of the Board, NewSouth NeuroSpine

#### **HONORS AND AWARDS**

American Chemical Society Certification Award, 1989 Stanford Departmental Honors Award, Chemistry, 1989 Stanford Departmental Honors Award, Biology, 1990 Medical Scholars Award, Stanford School of Medicine 1991

Deans Award for Outstanding Teaching, Stanford School of Medicine 1995 New England Journal of Medicine-Journal Watch, Featured Article, 1999 Johns Hopkins Hunterian Research Award, 2001 Johns Hopkins Faculty Teaching Award, 2002

Most Outstanding Visiting Lecturer, UMMC Dept. of Emergency Medicine, 2012

## RESEARCH

June 1986-Aug 1986 George Mpitsos, Ph.D.

Neurophysiology

MOH Marine Science Center

Project: Mapping of buccal ganglia neurons in pleurobranchaea

Jan 1987-Aug 1988 James P. Collman, Ph.D.

Department of Chemistry Stanford University

Project: Organic synthesis and electrochemistry of novel porphyrins

Aug 1988-Jan 1991 H. Fletcher Starnes, M.D.

Department of Surgery

Stanford University School of Medicine

Project: Studying the cytokine response to sepsis

July 1999-Jun 2002 Solomon H. Snyder, M.D.

Department of Neuroscience
Johns Hopkins School of Medicine

Project: Cloning and characterization of UDPG decarboxylase

#### **TEACHING EXPERIENCE**

1988 Organic Chemistry Teaching Assistant

Stanford University

1992 Statistics Teaching Assistant

Stanford University

1992 Cardiovascular Physiology Teaching Assistant

Stanford University

1991-1992 Gross Anatomy Teaching Assistant

Stanford University

1992-1993 Neuroanatomy Teaching Assistant

Stanford University

2001-2002 Bassett Society/Neurosurgical Anatomy, Instructor

Johns Hopkins

2004-2007 Neurosurgical Anatomy Instructor

University of Mississippi Medical Center

#### **ARTICLES**

Starnes HF, Heinzel FP, Moriarity JL, Yim J, Fontana A, Palladino MA: *Transforming growth factor-beta can delay and reduce the lethal effects of E.coli septic shock*. Cytokine 1:133, 1989.

Moriarity JL, Steinberg GK: *Surgical obliteration for vein of Galen Malformation*: a case report. <u>Surgical Neurology</u> 44:365-370, 1995.

Moriarity JL, Wetzel M, Clatterbuck RE, Javedan S, Sheppard J, Hoenig-Rigamonti K, Crone NE, Breiter SN, Lee RR, Rigamonti D: *The natural history of cavernous malformations: a prospective study of 68 patients*. Neurosurgery 44:1166-1173, 1999. Featured article, NEJM <u>Journal Watch Neurology</u> 1(5):34, 1999.

Moriarity JL, Clatterbuck RE, Rigamonti D: *The natural history of cavernous malformations*. Neurosurgery Clinics of North America 10(3):411-417, 1999.

Clatterbuck RE, Moriarity JL, Elmaci I, Lee RR, Breiter SN, Rigamonti D: *Dynamic nature of cavernous malformations*: a prospective magnetic resonance imaging study with volumetric analysis. <u>Journal of Neurosurgery</u> 93(6):981-6, 2000.

Moriarity JL, Krauss GL, Boatman D, Storm PB, Lenz FA: *Human "memories" can be evoked by stimulation of the lateral temporal cortex after ipsilateral medial temporal lobe resection*. <u>Journal of Neurology,</u> Neurosurgery and Psychiatry 71(4):549-51, 2001.

Moriarity JL, Lim M, Storm PB, Beauchamp NJ Jr., Olivi A: *Reversible posterior leukoencephalopathy occurring during resection of a posterior fossa tumor*: case report and review of the literature. <u>Neurosurgery</u> 49(5):1237-40, 2001.

Storm PB, Moriarity JL, Tyler B, Burger PC, Brem H, Weingart J: *Polymer delivery of camptothecin against 9L gliosarcoma: release, distribution and efficacy.* Journal of Neuro-Oncology 56(3):209-217, 2002.

Ye K, Aghdasi B, Luo HB, Moriarity JL, Wu FY, Hong JJ, Hurt KJ, Bae SS, Suh P-G, Snyder SH: *Phospholipase C-gamma1 is a physiological guanine nucleotide exchange factor for the nuclear GTPase PIKE*. <u>Nature</u> 415:541-544, 2002.

Moriarity JL, Hurt KJ, Resnick A, Storm PB, Laroy W, Schnaar R, Snyder SH: *UDP- glucuronate decarboxylase, a key enzyme in proteoglycan synthesis: cloning, characterization and localization.* Journal of Biological Chemistry 277(19):16968-75, 2002.

Hurt KJ, Musicki B, Palese MA, Crone JK, Becker RE, Moriarity JL, Snyder SH, Burnett AL: *Akt-dependent phosporylation of endothelial nitric oxide synthase mediates penile erection*. <u>Proceedings of the National Academy of Sciences</u> 99(6):4061-6, 2002.

Storm PB, Renard VM, Moriarity JL, Tyler B, Wilentz RE, Brem H, Weingart JD: *Systemic BCNU enhances the efficacy of local delivery of a topoisomerase I inhibitor against malignant glioma*. Cancer Chemotherapy and Pharmacology 54:361-367, 2004.

Blezberg AJ, Dorsi MJ, Storm PB, Moriarity JL: *Surgical repair of brachial plexus injury: a multinational survey of experienced peripheral nerve surgeons*. <u>Journal of Neurosurgery</u> 101:365-376, 2004. (cover article)

Gallia GL, Binder ZA, Schwarz J, Moriarity JL, Weingart JD Skull base chondrosarcoma presenting with hemorrhage

Can J Neurol Sci. 2009 Nov;36(6):774-5

### **CHAPTERS**

Moriarity JL, Starnes HF: Transforming growth factor-beta reduces lethal effects of E.coli infection. <u>In Proceedings of the Second International Workshop on Cytokines</u>, Alan R. Liss, Chapter 27, 1990.

Storm PB, Moriarity JL, Belzberg, A: Nerve Injuries, in H. Hunt Batjer, Christopher M. Loftus (eds): <u>Textbook of Neurological Surgery</u>. Philadelphia: Lippincott-Raven, 2000 (in press).

Moriarity JL, Storm PB, Olivi A: Central nervous system metastases, in R.T. Johnson (ed): <u>Current Therapy in Neurological Diseases</u> (Vol 7). St. Louis: Mosby, 2001 (in press).

Moriarity JL, Storm PB, Tamargo RJ: Central Nervous System Vascular Malformations in Pediatric Patients, in Bernard Maria (ed): Child Neurology. 2001 (in press).

# **LETTERS AND COMMENTS**

Lee J, Hua S, Clatterbuck RE, Moriarity JL, Dougherty PM, Lenz FA: Ablative surgery and deep brain stimulation for Parkinson's Disease. Neurosurgery 45: 417, 1999.

Clatterbuck RE, Moriarity JL, Rigamonti D: Intramedullary cavernoma. J Neurosurgery. 2001 Jul;95(1 Suppl):156-7.

# **ABSTRACTS AND PRESENTATIONS**

Moriarity JL, Starnes HF: Transforming growth factor beta and sepsis. Biology Honors Symposium, Stanford University, 1989.

Moriarity JL, Collman JP: Octadiethylamido porphyrin: synthesis and aqueous cyclic voltametry. Chemistry Honors Symposium, Stanford University, 1990.

Moriarity JL, Rigamonti D: Familial cavernous malformations. First International Congress on Genetics in Neuroscience, Terni, Italy, June 1998.

Moriarity JL, Rigamonti D: Familial subarachnoid hemorrhage. First International Congress on Genetics in Neuroscience, Terni, Italy, June 1998.

Moriarity JL, Brem H: Interstitial delivery of BCNU for high-grade astrocytomas. National Neuroscience Institute Glioma Symposium, Singapore, July 2000.

Moriarity JL, Brem H: Cells engineered to secrete IL-2 and GM-CSF can protect against cerebral glioma. National Neuroscience Institute Glioma Symposium, Singapore, July 2000.

Moriarity JL, Brem H: Squalamine and Minocycline as antiangiogenesis agents against cerebral glioma. National Neuroscience Institute Glioma Symposium, Singapore, July 2000.

Moriarity JL, Hurt KJ, Seibert M, Brem H, Snyder S: Molecular cloning and characterization of BAkt 1: A novel, putative transcription factor that interacts with Akt. Congress of Neurological Surgeons, San Antonio, September 2000.

Moriarity JL, Dorsi M, Belzberg A: Surgical repair of brachial plexus injury: A multinational survey of experienced peripheral nerve surgeons. Congress of Neurological Surgeons, San Antonio, September 2000.

Moriarity JL, Hurt KJ, Snyder S: Molecular Cloning and Characterization of Two Novel Akt Interactors. Society for Neuroscience, New Orleans, November 2000.

Moriarity JL, Hurt KJ, Snyder S: Molecular cloning and characterization of BAkt 2: A novel, cytosolic enzyme that interacts with Akt. American Association of Neurological Surgeons, Toronto, April 2001.

Storm PB, Weingart JD, Brem H, Snyder SH, Moriarity JL: Camptothecin-induced apoptosis against gliomas does not inhibit the PI(3)kinase/Akt pathway and is enhanced by wortmannin. Congress of Neurological Surgeons, San Diego, October 2001.

Renard VM, Storm PB, Ye K, Fischer C, Tyler B, Moriarity JL, Brem H: Noscapine inhibits gliomas by disrupting microtubule arrays and inducing apoptosis. Congress of Neurological Surgeons, San Diego, October 2001.

Storm PB, Moriarity JL, Renard VM, Fischer C, Tyler B, Brem H, Weingart JD: Systemic delivery of CPT-11 (irinotecan) fails to enhance local or systemic BCNU efficacy against intracranial 9L gliosarcoma. Congress of Neurological Surgeons, San Diego, October 2001.

Storm PB, Renard VM, Ye K, Tyler B, Moriarity JL, Brem H: Noscapine hydrochloride arrests glioma cells at metaphase and is a potential radiosensitizer. Congress of Neurological Surgeons, San Diego, October 2001.

Moriarity JL, Hurt KJ, Storm PB, Snyder SH: Further characterization of a novel cytosolic protein that interacts with Akt. Congress of Neurological Surgeons, San Diego, October 2001.

Moriarity JL, Hurt KJ, Resnick A, Storm PB, Laroy W, Schnaar R, Snyder SH: Cloning and characterization of UDP-glucuronate decarboxylase, a key enzyme in proteoglycan synthesis. Society for Neuroscience, San Diego, November 2001.

Moriarity JL: Anterior lumbar interbody fusion with anterior locking plate: technical report and review of 21 cases. Mississippi Neurosurgical Society, Memphis, March 2006.

Moriarity JL: Anterior lumbar interbody fusion with anterior plating: review of 21 cases. Neurosurgical Society of America, Ojai, June 2006.

Moriarity JL: Use of a free-hand electronic pedicle awl for lumbar pedicle screw placement. Neurosurgical Society of America, Kohler, June 2007.

Moriarity JL: Open vs. MIS surgery for degenerative lumbar spondylolisthesis with stenosis. Neurosurgical Society of America, St. Andrews-By-The-Sea, June 2014 (invited speaker).