

## **CURRICULUM VITAE**

**BRIAN E. SNELL, M.D., FAANS**

### **BIRTHDATE**

March 27, 1972

### **BIRTHPLACE**

Indianapolis, Indiana

### **EDUCATION**

1990-1994 Butler University

B.S. In Chemistry

*Cum Laude* with Highest Honors in Chemistry

Indianapolis, Indiana

1994-1998 Indiana University School of Medicine

Honors Designation in Surgery

Indianapolis, Indiana

### **INTERNSHIP**

1998-1999 University of Oklahoma Health Sciences Center

(Surgery) Oklahoma City, Oklahoma

### **RESIDENCY**

1999-2004 University of Oklahoma Health Science Center

(Neurosurgery) Oklahoma City, Oklahoma

### **FELLOWSHIP**

2004-2005 Medical College of Wisconsin Milwaukee, Wisconsin

Spine Surgery Fellowship

### **CERTIFYING BOARD**

American Board of Neurological Surgery: 2009

### **MEDICAL LICENSURE**

State Of Oklahoma

State of Texas

State of Wisconsin

## PROFESSIONAL MEMBERSHIPS

2010-present The North American Spine Society  
2006-present CyberKnife Society  
2006-present Rocky Mountain Neurosurgical Society  
2005-2008 Texas Association of Neurological Surgeons  
2005-2008 Smith County Medical Society  
2005-2008 Texas Medical Association  
2000-present American Association of Neurological Surgeons, Active Provisional Member  
1999-present Congress of Neurological Surgeons, Active Member  
1994-2008 American Medical Association

## HONORARY AWARDS

2002 Augustus McCravey Award (overall best paper)  
Wienecke RJ, Snell BE, Tompkins P, Stevens FA, Loftus CM. Changes in Energy-Related Metabolites Following Focal Cerebral Ischemia in Spontaneously Hypertensive Rats. 2002 Annual Meeting of the Southern Neurosurgical Society, Savannah, Georgia, March 6-9, 2002.

2001 1<sup>st</sup> place in CNS Annual Meeting Poster Competition  
Snell BE, Tompkins P, Wolfla CE. Ventral Epidural Pressure Response to Spinal Motion in the Presence of Graded Cervical Spinal Canal Compromise Without and With Laminectomy. Poster 488. Congress of Neurological Surgeons 51<sup>st</sup> Annual Meeting, San Diego, California, September 29-October 4, 2001.

1997 Honors Designation in Surgery. Clinical and Laboratory Honors Program in Surgery, Indiana University School of Medicine

1994-present Sigma Xi National Honor Society, Associate Member (inactive status)

## SERVICE

2002 Sergeant-at-Arms Committee  
Congress of Neurological Surgeons 52<sup>nd</sup> Annual Meeting, Philadelphia, Pennsylvania, September 21-26, 2002

2001 Sergeant-at-Arms Committee  
Congress of Neurological Surgeons 51<sup>st</sup> Annual Meeting, San Diego, California, September 29-October 4, 2001

## RESEARCH

2004-2005 Studying the effects of age, gender, and bone mineral density on human thoracic spine biomechanics. Protocol consists of: 1) pure moment and combined loading studies on T6-T11 segments employing motion analysis techniques, 2) segmental studies evaluating intradiscal pressure responses to loading, and 3) vertebral body compression testing.

- 2001 Employed the MCAO suture model in the rat and cDNA micro-array techniques to examine temporal profiling of gene expression patterns during ischemia.
- 2000 Studied purine metabolites via microdialysis during ischemia and reperfusion with the MCAO suture model in the rat. Studied the ventral epidural pressure response to spinal motion in the presence of graded cervical spinal canal compromise without and with laminectomy in the cat.
- 1997 Honors Candidate  
Clinical and Laboratory Honors Program in Surgery Richard N. Friedman, Ph.D., Neurological Surgery Department. Employed intracellular electro physiological techniques to study the effect of ryanodine at the crayfish neuromuscular junction.
- 1991-1994 Research Assistant Meng-Chih Su, Ph.D., Butler University Department of Chemistry. Described the kinetics of aryl substitutions with lithium organocuprates.

## PUBLICATIONS

11. Snell BE, Nasr F, Wolfla CE. Single-stage thoracolumbar vertebrectomy with circumferential reconstruction and arthrodesis: technical note. *Neurosurgery* 58 (4 Suppl 2):263-268, 2006.
10. Snell BE, Maiman DJ. Decompression, Arthrodesis, and Arthroplasty: Decision Making in the Surgical Treatment of Lumbar Disc Disease. *Clin Neurosurg* 52:271-278, 2005.
9. Snell BE, Loftus CM. Cervical carotid revascularization: indications from a surgical perspective. *Neurosurg Clin N Am* 16(2):257-258, 2005.
8. Wolfla CE, Snell BE, Honeycutt JH. Cervical ventral epidural pressure response to graded spinal canal compromise and spinal motion. *Spine* 29(14):1524-1529, 2004.
7. Snell BE, Loftus CM. Carotid Endarterectomy—Part II: Surgical Technique and Management of Concurrent Vascular Diseases. *Contemporary Neurosurgery* 25(21): 1-10, 2003.
6. Snell BE, Loftus CM. Carotid Endarterectomy—Part I: Indications and Perioperative Planning. *Contemporary Neurosurgery* 25(20):1-6, 2003.
5. Snell BE, Adesina A, Wolfla CE. Unicameral bone cyst of a cervical vertebral body and lateral mass with associated pathologic fracture in a child. Case report and review of the literature. *J Neurosurg* 95(2 Suppl):243-245, 2001.
4. Snell BE, Tompkins P, Stevens FA, Loftus CM. Continuous purine metabolite analysis by intracerebral microdialysis in spontaneously hypertensive rats with focal cerebral ischemia. *J Cereb Blood Flow Metab* 21(Suppl 1):S471, 2001.
3. Francel PC, Snell BE. Age and outcome of traumatic brain injury in infants and children. *Brain Injury Source* 3(2):14-16, 1999.
2. Francel PC, Snell BE. Aging and traumatic brain injury. *Brain Injury Source* 3(1):8-11, 1999.
1. Spanenberg WJ, Snell BE, Su M-C. Kinetic study of aryl substitution with organocuprates. *Microchemical J* 47:79-89, 1993.

## BOOK CHAPTERS

4. Snell BE, Honeycutt JH, Loftus CM. Surgical Management of Extracranial Carotid Artery Disease. In: Schmidek HH, Roberts DW, eds. Schmidek & Sweet's Operative Neurosurgical Techniques: Indications, Methods, and Results, 5<sup>th</sup> edition. New York: Saunders, Chapter 72. (In press-forthcoming 2006)
3. Snell BE, Wienecke RJ, Loftus CM. Surgical Management Options to Prevent Ischemic Stroke. In: Adams HP, ed. Handbook of Cerebrovascular Diseases. New York: Marcel Dekker, Chapter 16.
2. Snell BE, Wienecke RJ, Loftus CM. Surgical Management of Extracranial Vascular Occlusive Disease. In: Controversies in Neurological Surgery: Neurovascular Diseases. New York: Thieme. (In press-forthcoming 2006)
1. Snell BE, Loftus CM. Surgical Treatment of Distal Anterior Cerebral Artery Aneurysms. In: Batjer HH, Loftus CM, eds. Textbook of Neurological Surgery. New York: Lippincott Williams & Wilkins, 2003, pp 2397-2402.

## ORAL PRESENTATIONS

17. Snell BE. Intramedullary Spinal Cord Tumors. East Texas Medical Center Neurological Institute Neuro Focus 2008, Tyler, Texas, February 29, 2008.
16. Snell BE, Nasr FF, Wolfla CE. Single-Stage Thoracolumbar Vertebrectomy with Circumferential Reconstruction and Arthrodesis. Texas Association of Neurological Surgeons Annual Meeting, Dallas, Texas, April 27, 2007.
15. Snell BE. Surgical Treatment of Lumbar Disc Disease. Smith County Medical Society Retired Physician's Luncheon, Tyler, Texas, March 13, 2006.
14. Snell BE, White BT. Analysis and Outcome of Posterior Lumbar Interbody Fusion Using Reabsorbable Interbody Spacers. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Tampa, Florida, March 5-8, 2003. (Oral poster)
13. Snell BE, Thomas RD, Puckett TA, Wolfla CE. Early Surgical Treatment of Patients With Upper- and Mid-Thoracic Spine Fractures Without and With Neurological Deficit. Congress of Neurological Surgeons 52<sup>nd</sup> Annual Meeting, Philadelphia, Pennsylvania, September 21-26, 2002. (Oral poster)
12. Snell BE, Francel PC. Pediatric Head Injuries for the Primary Care Physician. 5<sup>th</sup> Annual Primary Care Update 2002, Oklahoma City, Oklahoma, May 10, 2002.
11. Wienecke RW, Snell BE, Tompkins P, Stevens FA, Loftus CM. Changes in Energy-Related Metabolites Following Focal Cerebral Ischemia in Spontaneously Hypertensive Rats. 2002 Annual Meeting of the Southern Neurosurgical Society, Savannah, Georgia, March 6-9, 2002.
10. Snell BE, Loftus CM. Neuroprotection. Review and Update in Neuroscience for Neurosurgeons (RUNN course), Marine Biological Laboratory, Woods Hole, Massachusetts, October 20-27, 2001.
9. Snell BE, Puckett TA, Wolfla CE. Analysis and Outcome of Ten Operated Upper- and Mid-Thoracic Spine Fractures Without and With Neurological Deficit. Rocky Mountain

- Neurosurgical Society Thirty-Sixth Annual Meeting, Steamboat Springs, Colorado, June 17-21, 2001.
8. Snell BE, Tompkins P, Wolfla CE. Graded Cervical Spinal Canal Compromise and Resultant Ventral Epidural Pressure Response to Spinal Motion Without and With Laminectomy. Department of Surgery Resident Research Forum, Oklahoma City, Oklahoma, May 25, 2001.
  7. Snell BE, Su M-C. Aryl Substitutions with Lithium Dimethylcuprate: A Kinetic Study. Paper 185. Great Lakes-Central Joint Regional ACS Meeting, Ann Arbor, June 1-3, 1994.
  6. Snell BE, Su M-C. Aryl Substitutions with Lithium Organocuprates: A Kinetic Study. Chemistry Seminar Series, Butler University, Indianapolis, Indiana, March 24, 1994.
  5. Snell BE, Su M-C. Kinetic Study of Aromatic-Carbon Direct Coupling with Lithium Dimethylcuprate. Third Annual Argonne Symposium for Undergraduates in Science, Engineering, and Mathematics, Argonne, Illinois, November 7, 1992.
  4. Snell BE, Su M-C. Mechanism of Simple Aryl Substitutions Using Organocuprates. Indiana Academy of Science Conference, Muncie, Indiana, November 6, 1992.
  3. Snell BE, Su M-C. Kinetic Study of Aromatic-Carbon Direct Coupling with Lithium Dimethylcuprate. Paper 448. 24<sup>th</sup> American Chemical Society Central Regional Meeting, Cincinnati, Ohio, May 26-29, 1992.
  2. Snell BE, Su M-C. Kinetic Study of Aromatic-Carbon Direct Coupling with Lithium Dimethylcuprate. Fourth Undergraduate Research Conference, Butler University, Indianapolis, Indiana, April 10, 1992.
  1. Snell BE, Su M-C. Mechanistic Study of Aryl Substitution with Organocopper Reagents. Page 57. Second Great Lakes College Chemistry Conference, East Lansing, Michigan, March 21, 1992.

## POSTERS

10. Snell BE, Wolfla CE. Analysis and Outcome of Early Surgical Treatment in Patients with Upper and Mid-thoracic Spine Fractures without and with Neurological Deficit. Poster 298. Congress of Neurological Surgeons 54<sup>th</sup> Annual Meeting, San Francisco, California, October 16-21, 2004.
9. Snell BE, White BT. Posterior Lumbar Interbody Fusion Using Reabsorbable Interbody Spacers. Poster 1226. 2004 Annual Meeting of the American Association of Neurological Surgeons, Orlando, Florida, May 1-6, 2004.
8. Tompkins P, Wienecke RJ, Snell B, Stevens FA, Loftus CM. Analysis of Lactate and Pyruvate Levels by Intracerebral Microdialysis in Spontaneously Hypertensive Rats in Response to Focal Cerebral Ischemia. XXI International Symposium on Cerebral Blood Flow, Metabolism, and Function (Brain 03), Calgary, Alberta, June 30, 2003.
7. Snell BE, Tompkins P, Stevens FA, Loftus CM. Intracerebral Microdialysis Analysis of Neurochemical Pathway Activation Time Course in Spontaneously Hypertensive Rats with Focal Cerebral Ischemia. 2002 Annual Meeting of the American Association of Neurological Surgeons, Chicago, Illinois, April 6-11, 2002.
6. Snell BE, Tompkins P, Stevens FA, Lerner MR, Brackett DJ, Loftus CM. Analysis of Gene Expression Modulation with Focal Cerebral Ischemia in Spontaneously Hypertensive

- Rats Utilizing a cDNA Expression Array. 2002 Annual Meeting of the American Association of Neurological Surgeons, Chicago, Illinois, April 6-11, 2002.
5. Snell BE, Tompkins P, Stevens FA, Loftus CM. Time Course of Neurochemical Pathway Activation in Spontaneously Hypertensive Rats with Focal Cerebral Ischemia by Intracerebral Microdialysis. The Fifth Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the American Society of Interventional and Therapeutic Neuroradiology, Addison (Dallas), Texas, February 3-6, 2002.
  4. Snell BE, Tompkins P, Stevens FA, Lerner MR, Brackett DJ, Loftus CM. Analysis of Gene Expression Employing a cDNA Expression Array in the Rat Model of Reversible, Focal Cerebral Ischemia. The Fifth Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and the American Society of Interventional and Therapeutic Neuroradiology, Addison (Dallas), Texas, February 3-6, 2002.
  3. Snell BE, Tompkins P, Stevens FA, Loftus CM. Continuous Purine Metabolite Analysis by Intracerebral Microdialysis in Spontaneously Hypertensive Rats with Focal Cerebral Ischemia. Poster 197. Congress of Neurological Surgeons 51<sup>st</sup> Annual Meeting, San Diego, California, September 29-October 4, 2001.
  2. Snell BE, Tompkins P, Wolfla CE. Ventral Epidural Pressure Response to Spinal Motion in the Presence of Graded Cervical Spinal Canal Compromise Without and With Laminectomy. Poster 488. Congress of Neurological Surgeons 51<sup>st</sup> Annual Meeting, San Diego, California, September 29-October 4, 2001.
  1. Snell BE, Loftus CM. Surgical Technique of Carotid Endarterectomy with Special Emphasis on Primary Hemashield Patch Angioplasty. Poster D700. 12<sup>th</sup> World Congress of Neurosurgery, Sydney, Australia, September 16-20, 2001.

#### ARTICLES

2. Snell BE, Pritz MB, Smith RR. Pitfalls in the Diagnosis of Lesions of the Jugular Bulb. X802 Biomedical Research Paper, 1995.
1. Snell BE. Aryl Substitutions with Lithium Organocuprates: A Kinetic Study. Unpublished thesis presented to the Department of Chemistry and the Committee on Honors, Butler University, 1994.

#### NON-ACADEMIC HONORS & ACHIEVEMENTS

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| 1990-1994 | Jordan College of Fine Arts Violin Performance Award, Butler University. Quarter tuition scholarship.                                 |
| 1988      | Indiana State School Music Association State Championship Orchestra member, Carmel High School Orchestra.                             |
| 1985-1990 | Indiana State School Music Association Solo & Ensemble Contest participant. Eighteen first place and three second place performances. |

## WORK HISTORY

- 2008-present Neuroscience Specialists, P.C.  
4120 W. Memorial Road, Suite 300  
Oklahoma City, OK 73120  
(405) 748-3300
- 2005-2008 Tyler Neurosurgical Associates, P.A.  
700 Olympic Plaza, Suite 850  
Tyler, Texas 75701  
(903) 595-2441