

CURRICULUM VITAE

ERICH OSCAR RICHTER, MD

840 Pine Street

Suite 880

Macon, Georgia 31201

(478) 743-7092

erichter@ganeurosurg.org

MEDICAL TRAINING

Residency Neurological Surgery, University of Florida, 2000–2005

Internship General Surgery, University of Florida, 1999-2000

Fellowship Stereotactic and Functional Neurosurgery, Toronto Western Hospital,
Toronto, Ontario, Canada, 2002-2003

EDUCATION

Medical The Ohio State University College of Medicine and Public Health, 1995 -
1999

Undergraduate Electrical Engineering, University of Florida, Gainesville, 1990-1995

MEDICAL LICENSURE

State of Georgia Georgia Medical Board / Georgia Composite State Board of Medical
Examiners, 2006 -Present

State of Florida Department of Health, 1999 -Present

PROFESSIONAL AFFILIATIONS

- The Movement Disorder Society
- American Epilepsy Society
- The American Clinical Neurophysiology Society
- American Association of Stereotactic Functional Neurosurgeons
- The Epilepsy Foundation of Georgia
- Christian Medical Association
- American Association for the Advancement of Science

- Joint Section on Stereotactic and Functional Neurosurgery
- American Association of Neurological Surgeons
- Congress of Neurological Surgeons
- Christian Medical and Dental Society. President, OSU student chapter 1996.
- American Medical Association

PROFESSIONAL EXPERIENCE

Functional Neurosurgeon, Georgia Neurosurgical Institute (GNI), Macon, GA, USA,
2006

Faculty, Clinical Assistant Professor of Medicine, Department of Surgery, Mercer University
School of Medicine, 2006

Faculty Lecturer, Department of Neurosurgery, University of Florida, Gainesville, FL, USA,
2006

Teacher, MCAT Review Courses, Princeton Review, Inc., Columbus, OH, USA, 1996

Library Monitor, OSU College of Medicine, Columbus, OH, USA, 1995-1996

Computer Support Assistant, Edix, Inc., (medical transcription company) Tampa, FL,
USA, 1995

Resident Care Assistant for patient with Parkinson's Disease, Gainesville, FL, USA, 1995

Grader, Electromagnetic Fields Class, Department of Electrical Engineering, College of
Engineering, University of Florida, Gainesville, FL, USA, 1993

Technical Assistant, Landmark Research International, Inc. (computer software
company), Clearwater, FL, USA, 1992

Lab Assistant, Microelectronics Lab, Department of Electrical Engineering, College of
Engineering, University of Florida, Gainesville, FL, USA, 1992

Lab Assistant, Photonics Lab, Department of Electrical Engineering, College of
Engineering, University of Florida, Gainesville, FL, USA, 1991

JOURNAL PUBLICATIONS

1. Preoperative endovascular brain mapping for intraoperative volumetric image guidance: preliminary concept and feasibility in animal models. Mericle RA, Richter EO, Eskioglu E, Watkins C, Prokai L, Batich C, Santra S. J Neurosurg 2006, Apr; 104 (4): 566-573.
2. Development of syringohydromyelia associated with Dandy–Walker malformation: treatment with cystoperitoneal shunt placement. Case report. Richter EO, Pincus DW. J Neurosurg 2006, Mar; 104 (3-Suppl. S): 206-209.
3. *Brainstem Stereotactic Biopsy in Children*. Pincus DW, Richter EO, Yachnis AT, Bennett J, Bhatti, MT, Smith A.. J Neurosurg 2006, Feb; 104 (2 Suppl): 108-14.

4. Human anterior cingulate cortex neurons encode cognitive and emotional demands. Davis KD, Taylor, KS, Hutchison, WD, Dostrovsky JO, McAndrews MP, Richter EO, Lozano AM.. *J Neurosci* 2005, Sept 14; 25 (37): 8402-6.
5. Bilateral subthalamic nucleus stimulation for Parkinson disease: a systematic review of the clinical literature. Hamani C., Richter E.O., Schwalb J.A., Lozano, A.M. *Neurosurgery* 2005 Jun; 56(6):1313-21;
6. *Percutaneous and endoscopic microdissection*. Richter EO, Ulm AJ, Peace D, Henn JS *Operative Techniques in Neurosurgery*. (invited review, in press).
7. Correspondence of microelectrode mapping with MRI for subthalamic nucleus procedures/ Hamani C., Richter E.O., Andrade-Souza Y., Hutchison W., Saint-Cyr J.A., Lozano A.M. . *Surg Neurol* 2005 Mar; 63(3): 249-53.
8. Surgery for Parkinson's disease: where are we? Lozano AM, Richter E. *Lancet Neurology* (invited review, in press).
9. Determining the position and size of the subthalamic nucleus based on magnetic resonance imaging results in patients with advanced Parkinson disease. Richter EO, Hoque T, Halliday W, Lozano AM, Saint-Cyr J. *J Neurosurg* 2004 Mar; 100(3): 541-6.
10. Cingulotomy for psychiatric disease: microelectrode guidance, a colossal reference system for documenting lesion location, and clinical results. Richter EO, Davis KD, Hamani C, Hutchison WD, Dostrovsky JO, Lozano AM. *Neurosurgery* 2004 Mar; 54(3): 622-28.
11. An Ataxic teen with rapidly changing eye findings. Richter EO, Tunnessen WW. *Contemporary Pediatrics* 17(7): 23-24,27, 2000.

ABSTRACTS

1. Age a factor in Psychogenic Non-epileptic Seizure (PNES): adult. Zhao, D, Richter, ED, Hyer, LA, Moriner, GM, Chung, I, Robinson, JS, Barth, ACM, Mancin, KF, Robinson JS, AES, Philadelphia, PA, November 2007.
2. High Prevalence of Opioid Dependence Does Not Impact Length of Stay in Spine Surgery Patients. MS Walid, M Ajjan, ACM Barth, M Kassam, CH Feltes, LG Nikolakakos, KN Fountas, DC Parish, EO Richter, JS Robinson Jr. 2007 AANS Annual Meeting, Washington DC, USA, April 2007.

3. Immediate Economic Outcome Analysis of Interspinous Process Decompression (IPD) and Single Level Lumbar Decompression for Spinal Stenosis. MA Kassam, CH Feltes, LG Nikolakakos, MS Walid, ACM Barth, KN Fountas, EO Richter, AA Grigorian, HF Smisson, KW Johnston, JS Robinson Jr. 2007 AANS Annual Meeting, Washington DC, USA, April 2007.
4. Economic Impact Model for the Development of a Statewide Trauma System in the USA. CH Feltes, AI Escurra, MA Kassam, LG Nikolakakos, KN Fountas, MS Walid, ACM Barth, D Zhao, AJ Ulm, EO Richter, DA Ashley, AA Grigorian, EC Troup, HF Smisson, KW Johnston, JS Robinson Jr. 2007 AANS Annual Meeting, Washington DC, USA, April 2007.
5. Absence of Economic Analysis in Neurosurgical Literature. LG Nikolakakos, JS Robinson III, C Sevin, MA Kassam, CH Feltes, KN Fountas, EO Richter, JS Robinson Jr. 2007 AANS Annual Meeting, Washington DC, USA, April 2007.
6. Percutaneous pedicle screw fixation as a supplement to anterior thoracolumbar fusion. Ulm AJ, Richter EO, Jacob RP. 2005 Scientific Program of the Southern Neurological Society, Key West, FL, March 2005.
7. Davis KD, Taylor KS, Hutchison WD, Richter EO, Lozano AM, Dostrovsky JO. Responses of anterior cingulate cortex neurons during the counting and emotional stroop in patients with obsessive compulsive disorder. Society for Neuroscience 34th Annual Meeting, San Diego, CA, October 23-27, 2004.
8. Bilateral subthalamic nucleus stimulation for Parkinson disease: a review of the clinical literature. Hamani C., Richter E.O., Lozano A.M. 53rd Meeting of the Congress of Neurological Surgeons Denver, CO, October 18-23, 2003 (poster).
9. Correspondence of microelectrode mapping with magnetic resonance imaging for subthalamic nucleus procedures. Richter EO, Hamani C, Hutchison W, Saint-Cyr J, Lozano AM. 53rd Annual Meeting of the Congress of Neurological Surgeons, Denver, CO, October 18-23, 2003, Abstract 81.
10. Comparison of MRI position and size of STN to schaltenbrand and wahren brain atlas. Richter EO, Hoque T, Saint-Cyr J, Lozano AM. Quadrennial Meeting of the American Society for Stereotactic and Functional Neurosurgery, New York, NY, 2003, pg. 88.
11. The Toronto western experience in neurosurgery for obsessive compulsive disorder. Richter EO, Lozano AM, Hamani C. Annual Meeting of the American Association of Neurological Surgeons, San Diego, CA, 2003, pg. 118.
12. Subjacent vertebral fracture after percutaneous vertebroplasty: indications for prophylactic treatment. Richter EO, Guiot BH, Fessler R, Peters K, Vlassak R, Bouchet

L. 2001 Scientific Program of the Southern Neurological Society, Barton Creek, TX, April 2001, pg. 12.

13. Influence of Anesthesia on Postoperative Cognitive Decline in Adults Over 50 Who Have Undergone Spinal Surgery. Hyer, Valid, Richter, Brooks, Robinson. AANS April 2008. (pending acceptance).
14. Cognitive and Affective Effects of Neuromodulation on Quality of Life. Richter, E., Georgia Neurosurgical Society, Atlanta, GA, November 17, 2007.

ORAL PRESENTATIONS

1. "DSMB Review for Dr. Kelly Foote's Dual Lead Study." Richter, E. Natalia's, October 11, 2007.
2. Research in movement disorder and functional neurosurgery. Richter, E. Mercer University School of Medicine Medical Center of Central Georgia Joint Research Conference. August 16th, 2007.
3. Vagus Nerve Stimulation in Treatment Resistant Depression: Retrospective Look at Outcomes and Placement of Vagus Nerve. LA Hyer, MS Walid, EO Richter, JS Robinson Jr. Georgia Neurosurgical Society, Sea Island Georgia, May 2007.
4. Prevalence of opioid dependence in spine surgery patients and correlation with length of stay. MS Walid, LA Hyer, EO Richter, JS Robinson Jr. Georgia Neurosurgical Society, Sea Island Georgia, May 2007.
5. Richter, EO, Stereotactic Radiosurgery for Trigeminal Neuralgia Regional Trigeminal Neuralgia Association Conference, Vanderbilt University, May 2007.
6. Richter, EO, Surgeon's Panel, Regional Trigeminal Neuralgia Association Conference, Vanderbilt University, May 2007.
7. Economic Analysis of Allograft vs. Autograft Usage for 1- and 2-Level ACD&F with Plate Fixation for Patients Requiring Inpatient Surgery. ACM Barth, LG Nikolakakos, MA Kassam, MS Walid, CH Feltes, RA Lummus, KN Fountas, AA Grigorian, KW Johnston, EO Richter, JS Robinson Jr., 2007 AANS Annual Meeting, Washington DC, USA, April 2007.
8. Surgical Options for Epilepsy . Richter, EO, 1st Annual Epilepsy Symposium, Macon, Georgia March 2007.

9. Is there any advantage to using a balloon? Richter, EO, Kyphoplasty: Grand Rounds Medical College of Georgia, Augusta, Georgia January 2007.
10. Thalamotomy. Richter EO. First National Honduran Congress of Neurosurgery, San Pedro Sula, Honduras, August 2006.
11. Surgery for Depression: Schools of Thought and the Mercer University Experience. Richter, EO. C.A.N.S. 33rd Annual Scientific Congress, Negril, Jamaica November 2006.
12. Pedicle Screw Instrumentation: is there a role for fixation without fusion Richter, EO, Percutaneous. C.A.N.S. 33rd Annual Scientific Congress, Negril, Jamaica November 2006.
13. Depth Electrodes vs. surface recording in temporal lobe epilepsy. Richter, EO, , C.A.N.S. 33rd Annual Scientific Congress, Negril, Jamaica November 2006.
14. CT versus MRI in postoperative imaging of DBS electrodes. Richter EO, Okun M, Foote K. University of Florida, Department of Neurosurgery, Neurosurgery 2005, Gainesville, FL, January 2005.
15. Correspondence of microelectrode mapping with MRI for STN procedures. Richter EO, Hamani C, Hutchison W, Saint-Cyr J, Lozano AM. Oral Poster, 53rd Annual Meeting of the Congress of Neurological Surgeons, Denver, CO, October 18-23, 2003.
16. Position and size of the STN: a comparison of MRI findings to standard brain atlases. Richter EO, Hoque T, Halliday W, Saint-Cyr J, Lozano AM. Quadrennial Meeting of the American Society for Stereotactic and Functional Neurosurgery, New York, NY, May 20, 2003.
17. The Toronto western experience with cingulotomy for psychiatric disorders: microelectrode recording, clinical outcome, and normalized lesion location. Richter EO, Davis K, Hamani C, Hutchison WD, Dostrovsky J, Lozano AM. Annual Meeting of the American Association of Neurological Surgeons. San Diego, CA, April 30, 2003.
18. Discovering the brain: surgery for movement disorders. Richter EO, Lozano AM. Brain Discovery Day, University of Toronto Medical School, Toronto, Ontario, April 1, 2003.
19. Surgical treatment of the emotional component of intractable chronic pain disorders: lessons from psychosurgery. Richter EO, Lozano AM. Neurosurgery Grand Rounds, Toronto Western Hospital, Toronto Ontario, January 2003.
20. Position and size of the STN: a comparison of MRI findings to standard brain atlases. Richter EO, Hoque T, Lozano AM, Saint-Cyr J. University of Florida, Department of

Neurosurgery, Neurosurgery 2003, Gainesville, FL, January 2003.

21. Method of endovascular brain mapping. Richter EO, Watkins K, Ulm AJ, Burry M, Mericle R. University of Florida, Department of Neurosurgery, Neurosurgery 2002, Gainesville, FL, January 2002.
22. Subjacent vertebral fracture after percutaneous vertebroplasty: indications for prophylactic treatment. Richter EO, Guiot BH, Fessler R, Peters K, Vlassak R, Bouchet L Annual Meeting of the Southern Neurological Society. Barton Creek, TX, April 2001.
23. Subjacent fracture after vertebroplasty. Richter EO, Guiot BH, Fessler R, Peters K, Vlassak R, Bouchet L. University of Florida, Department of Neurosurgery, Neurosurgery 2001, Gainesville, FL, January 2001.
24. G2 Checkpoint abrogation with UCN-01 in CMO cells. Richter EO, Vandre D. Neurosurgery Grand Rounds, The Johns Hopkins University College of Medicine, Baltimore, MD, December 1998.
25. End of life decision making. Richter EO. Panel participant. Ethics discussion group, Ohio State University Hospitals, Columbus, OH, January, 1996.

BOOK CHAPTERS

1. Deep brain stimulation for movement disorders. Richter, EO, Lozano, AM. In: Rosch, P., Marko M, eds. Clinical Applications of Bioelectromagnetic Medicine. New York: Marcel Dekker Inc., 2004: 265-276.
2. Posterior and far-lateral open microdiscectomy. Peace D, Ulm AJ, Richter EO, Henn J. In: Henn J, Dickman C, eds. Surgical Anatomy and Techniques of the Spine. Elsevier (in press).
3. Percutaneous and endoscopic discectomy. Richter EO, Ulm AJ, Peace D, Henn J. In: Henn J, Dickman C, eds. Surgical Anatomy and Techniques of the Spine. Elsevier (in press).

UNITED STATES PATENTS

Method of Endovascular Brain Mapping. Mericle RA, Batich CD, Watkins CS, Burry MV, Richter EO, Santra S: US Patent Pending, Serial # 10/421,950; Publication # US-2003-0236457, Filed April 24, 2003.

COMMUNITY PRESENTATIONS

1. The Future of Neurosurgery. Rotary Club of Macon, Macon Georgia, February 28, 2007.
2. Deep Brain Stimulation for Movement Disorders. Community Physician Presentation, Macon, Georgia January 2007.
3. The Future of Neurosurgery, Kiwanis Club of Macon, Macon, Georgia, February 6, 2007.
4. Acute Spinal Cord Injury. Convocation, University of Florida School of Physical Therapy, August 30, 2004.
5. Neurosurgery and becoming a neurosurgeon. Meadowvale Secondary School Biology Club, Toronto, Ontario, May 2003.
6. Introduction to neurosurgery. Case-based neurosurgery teaching session for third year medical students, University of Toronto Medical School, Toronto, Ontario, April 2003.
7. What is brain surgery like? Grade 4 Class, Humbercrest Public School, Toronto, Ontario, October 2002.

COURSE FACULTY

Menezes A, Henn JS, Dickman C, Lewis S, Lemole M, Porter R, Delfini R, Mimran R, Richter EO, Ballough A. *Anterior approaches to the craniovertebral junction: 3D anatomy and surgery.* 54th Annual Meeting of the Congress of Neurological Surgeons, San Francisco, CA, October 16-21, 2004.

WORKS IN PROGRESS

1. CT versus MRI in postoperative imaging of DBS electrodes. Richter EO, Okun M, Foote KD.
2. Reproducibility of cingulate coordinates using the callosal line system. Richter EO.
3. Anatomy of the inferior orbital foramen: implications for peripheral nerve lesions. Richter EO, Ulm AJ, Rahman M, Rhoton AL.
4. Anatomy of approaches to the third ventricle part II: comparison of approach distances. Ulm AJ, Richter EO, Pincus DW, Rhoton AL.
5. Mechanisms of airbag related pediatric cervical spine injuries. Richter EO, Ulm AJ, Pincus DW.

6. Traumatic bilateral perched midlumbar facets: a case report and review of the literature. Richter EO, Ulm AJ, Rahman M, Henn JS

HONORS AND AWARDS

The Ohio State University College of Medicine and Public Health

1998	AΩA, Medical Honorary Society. President 1998
1998	Samuel J. Roessler Fellowship
1998	Honors in General Medicine
1997	Honors in Surgery
1997	Letter of Commendation in Obstetrics and Gynecology
1997	Academic Excellence Award for Outstanding Performance, Independent Study Program
1996	Academic Excellence Award for Outstanding Performance, Medical Humanities & Behavioral Sciences
1996	Honors in Anatomy
1995 - 1998	The Ohio State University Scholarship in Medicine (1995-1998)

University of Florida, Gainesville, FL

1995	"Electric E" highest award for academic achievement, Department of Electrical Engineering
1994	Schlumberger Scholar, College of Engineering
1993 - 1994	Presidential Scholar
1993	Rosier Scholarship, College of Engineering
1993	Alpha Epsilon Delta Honor Society (Pre-medical honor society)
1992	Alpha Lambda Delta Honor Society
1990 - 1994	National Merit Scholarship

ACADEMIC SUBSPECIALTY INTERESTS

- Functional neurosurgery for movement disorders, epilepsy psychiatric disorders and complex pain disorders.
- Minimally invasive spine surgery and complex spinal instrumentation.
- Stereotactic and minimally invasive cranial techniques including radiosurgery and endoscopic surgery.

COMMUNITY SERVICE AND POSITIONS

- Neurosurgical Medical Mission to Honduras, August 2006
- Board Member, Friends of Barnabus Foundation
- Board Member, Elias Community Church