# Alexander M. L. Mason, M.D.

1155 Alpine Avenue, Suite 320

Boulder, CO 80304 Phone: 303-938-5700 Fax: 303-998-0007

### EMPLOYMENT & RESIDENCY

- Boulder Neurosurgical Associates, Boulder, Colorado
  - -Neurosurgical Partner, August 2010 present
  - -Staff Neurosurgeon, August 2008 July 2010
- Emory University, Atlanta, Georgia
  Department of Neurosurgery, Cerebrovascular Fellow and Clinical Instructor
  August 2007 June 2008
- Cleveland Clinic Foundation, Cleveland, Ohio

Department of Neurosurgery

- -Chief Resident, June 2006-June 2007
- -Resident in the Department of Neurosurgery 2003-2007
- -ABNS board eligible.
- -Resident in Department of Radiology/emphasis in neuroradiology, July 2002 February 2003
- United States Senate, Washington DC

Office of Senate Majority Leader Frist, WH, MD; Health Policy Fellow August 2005 – June 2006

- -Awarded the Charles Plante Public Policy Fellowship, CNS
- University Hospitals/Case Western Reserve, Cleveland, Ohio
  - -Resident in the Department of Neurosurgery 2000 2002

### **EDUCATION**

- The Ohio State University College of Medicine, Columbus, Ohio Medical Doctor, 1996-2000
- The Ohio State University, Columbus, Ohio Graduate studies, 1994-1996
- Miami University, Oxford, Ohio, Bachelor of Arts/ Microbiology, 1989-1994

#### HONORS and AWARDS

- Received the highest ratings in the Denver Metro Area for the services provided at Boulder Community Hospital (2010)
- Finalist, Mario Boni Award, Cervical Spine Research Society, European Section, 26<sup>th</sup> CSRS Annual Meeting, Corfu, Greece (2010)
- Best Paper Award Correlation of Clinical Outcomes and Cervical Sagittal Alignment: A Prospective Randomized Clinical Study. 24<sup>th</sup> Annual NASS Meeting, November 10 – 14, 2009, San Francisco, California.

## **Residency & Medical School**

- Charles Plante Public Policy Fellowship, awarded by the Congress of Neurological Surgeons, 2005 200
- Award of Excellence, Cleveland Clinic Foundation, 2004
- Outstanding Intern award, University Hospitals of Cleveland, 2001
- Jonasson Award in Surgery for Exceptional Performance in Surgery, The Ohio State University, 2000
- Phi Kappa Phi Honor Society, The Ohio State University, 2000
- Honors, Neurosurgery, Sub-internship, University of Cincinnati, 1999
- Honors, Neurosurgery, The Ohio State University, 1999
- Honors, Surgery, Sub-internship, The Ohio State University, 1999
- Honors, Emergency Medicine, The Ohio State University, 1999
- Honors, Pediatrics, The Ohio State University, 1999
- Inductee, Landacre Research Honorary, 1998
- Samuel J. Roessler Memorial Medical Scholarship, 1997-1998

#### **Undergraduate (selected)**

- Research Grant, Department of Microbiology, Miami University, 1994-1995
- Dean's List, Miami University, 1993, 1994
- Scholar's Award, Kappa Sigma Fraternity Foundation, 1994
- Presidents Award for Excellence in Service, 1993
- General Motors Community Service Award, 1993

## Other (selected)

- Eagle Scout, Boy Scouts of America, 1989
- Delegate, Congressional Youth Leadership Council, 1989

### SCIENTIFIC PUBLICATIONS

- Villavicencio AT, Babuska J, Serxner BJ, Nelson EL, **Mason A**, Burneikiene S. A Preliminary Report on the CO2 Laser for Lumbar Fusion: Safety, Clinical Outcomes and Technical Considerations. (*Submitted*)
- Burneikiene S, Nelson EL, **Mason A**, Rajpal S, Villavicencio AT. Complications in Patients Undergoing Transforaminal Lumbar Interbody Fusion with Deformity Correction for Degenerative Scoliosis and Spinal Stenosis. Surg Neurol Int, 2012;3:25.
- Villavicencio AT, Nelson EL, **Mason A**, Carr FA, Burneikiene S. Outpatient Instrumented Lumbar Interbody Fusion. (*Accepted J Spinal Disord and Tech*)

- Carr FA, Healy KM, Villavicencio AT, Nelson EL, **Mason A**, Burneikiene S, Hernandez TD. Effect of Patient Pain Expectancies and Preoperative SF-36 Mental Component Summary Scores on Clinical Outcomes Following Anterior Cervical Discectomy and Fusion. J Neurosurg Spine. 2011 Nov;15(5):486-490.
- Villavicencio AT, Babuska JM, Ashton A, Busch E, Nelson EL, **Mason A**, Burneikiene S. Prospective Randomized Double-Blinded Clinical Study Evaluating the Correlation of Clinical Outcomes and Cervical Sagittal Alignment. Neurosurgery 68:1309-1316, 2011.
- Villavicencio AT, Burneikiene S, Roeca CM, Nelson EL, **Mason A**. Minimally Invasive versus Open Transforaminal Lumbar Interbody Fusion. Surg Neurol Int 2010, 1:12.
- **Mason A,** Cawley M. Repeat Aneurysm Surgery: Operative Nuances. Daniel Barrow (*Work in progress*).
- Mason A, Barrow D. Aneurysm Surgery in an Endovascular Era. (Work in progress).
- LaBorde D, **Mason A**, Barrow D. Anomalous Middle Cerebral Artery and Fusiform Aneurysm: Case Report. (*Work in progress*).
- Nasr C, **Mason A**, Mayberg M, Staugaitis SM, Asa SL. Acromegaly and Somatotroph Hyperplasia with Adenomatous Transformation due to Pituitary Metastasis of a GHRH-Secreting Pulmonary Endocrine Carcinoma. Journal of Clinical Endocrinology and Metabolism, 91(12) 4776-4780, 2006.
- Steinmetz M, **Mason A**, Benzel E. Surgical Exposure of the Peripheral Nerves of the Lower Extremity, Part II in <u>Neurosurgical Operative Atlas</u> Second Edition: Spine and Peripheral Nerves; Editors: Christopher Wolfa, MD and Daniel K. Resnick, MD. Thieme. 2007.
- Mason A, Steinmetz M, Benzel E. Surgical Exposure of the Peripheral Nerves of the Lower Extremity, Part I in <u>Neurosurgical Operative Atlas</u> Second Edition: Spine and Peripheral Nerves; Editors: Christopher Wolfa, MD and Daniel K. Resnick, MD. Thieme. 2007.
- Mason A, Toms S. Hormonal Modulation, Biological Response Modifiers, and Ab1 protein Toxins in the treatment of Malignant Gliomas, in <u>High-Grade Gliomas:</u>
  <u>Treatment and Diagnosis</u>. Editors: Gene Barnett, MD. Humana Press; 2006.
- Mervis L, **Mason A**. Arachnoiditis, <u>The 5-Minute Neurological Consult</u>, editors J. Lynn, and H. Newton, p.68-70, Lippincott, Williams and Wilkins, 2004.

### **PRESENTATIONS**

- Mason A. Current Concepts in Treatment of Neurological Disorders: The Practitioners Guide. 8<sup>th</sup> Annual Symposium Current Techniques in the Treatment of Cranial and Spinal Disorders. Broomfield, Colorado, October 29, 2011.
- Babuska J, Villavicencio AT, **Mason A**, Nelson EL, Rajpal S, Burneikiene S. Accuracy Comparison for Intraoperative Biplanar and Volumetric Image Guidance: A Systematic review. 2011 CNS annual Meeting, Washington, DC, October 1–6, 2011.
- Villavicencio AT, Nelson EL, **Mason A**, Rajpal S, Carr FA, Burneikiene S. The Safety of Transforaminal Interbody Fusion for Deformity Correction in Degenerative Scoliosis with Spinal Stenosis. 79th AANS Annual Meeting, Denver, CO, April 9-13, 2011.
- Villavicencio AT, Nelson EL, Mason A, Babuska J, Carr FA, Rajpal S, Burneikiene S.
   CO<sub>2</sub> Laser-Assisted Lumbar Fusions: Safety, Clinical Outcomes and Technical Considerations. 79th AANS Annual Meeting, Denver, CO, April 9-13, 2011.

- Villavicencio AT, Burneikiene S, Nelson EL, **Mason A**. Outpatient Lumbar Fusions Changing the Standard of Care. 79th AANS Annual Meeting, Denver, CO, April 9-13, 2011.
- Villavicencio AT, Carr FA, Hernandez TD, Healy KM, Nelson EL, Mason A, Rajpal S, Burneikiene S. Effects of Preoperative SF-36 Mental Component Scores and Patient Pain Expectations on Clinical Outcomes Following Anterior Cervical Discectomy and Fusion. 79th AANS Annual Meeting, Denver, CO, April 9-13, 2011.
- Villavicencio AT, Nelson EL, **Mason A**, Rajpal S, Carr F, Burneikiene S. The Safety and Efficacy of Transforaminal Lumbar Interbody Fusion for Deformity Correction in Degenerative Scoliosis with Spinal Stenosis. 27<sup>th</sup> Annual Meeting, AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ, March 9 12, 2011.
- Villavicencio AT, **Mason A**, Nelson EL, Rajpal S, Carr F, Weeks B, Burneikiene S. A Systematic Review of Accuracy and Comparison of Intraoperative Biplanar and Volumetric Image Guidance Systems. 27<sup>th</sup> Annual Meeting, AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ, March 9 12, 2011.
- Villavicencio AT, Nelson EL, Mason A, Babuska J, Carr F, Rajpal S, Burneikiene S. CO2 Laser-Assisted Lumbar Fusions: Safety, Clinical Outcomes and Technical Considerations. 27<sup>th</sup> Annual Meeting, AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ, March 9 12, 2011.
- Carr FA, Hernández T, Healy KM, Nelson EL, **Mason A**, Burneikiene S, Villavicencio AT. Effect of Patient Pain Expectations and Preoperative SF-36 Mental Component Scores on Clinical Outcomes Following Anterior Cervical Discectomy and Fusion. 27<sup>th</sup> Annual Meeting, AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ, March 9 12, 2011.
- Villavicencio AT, Nelson EL, **Mason M**, Babuska J, Carr F, Burneikiene S. Selective Transforaminal Lumbar Interbody Fusion for Degenerative Adult Scoliosis Correction. 2010 CNS Annual Meeting, San Francisco, CA October 16 21, 2010.
- Villavicencio AT, Nelson EL, Mason A, Babuska J, Burneikiene S. Efficacy of CO<sub>2</sub> Laser-Assisted Lumbar Fusions: Preliminary Clinical Results. 2010 CNS Annual Meeting, San Francisco, CA October 16 – 21, 2010.
- Carr FA, Hernández T, Healy KM, Nelson EL, **Mason A**, Burneikiene S, Villavicencio AT. Effect of Patient Pain Expectations and Preoperative SF-36 Mental Component Scores on Clinical Outcomes Following Anterior Cervical Discectomy and Fusion. 2010 CNS Annual Meeting, San Francisco, CA October 16 21, 2010.
- Villavicencio AT, Nelson EL, **Mason A**, Babuska J, Burneikiene S. The Safety of Instrumented Lumbar Interbody Fusions Performed as an Outpatient Procedure. 2010 CNS Annual Meeting, San Francisco, CA October 16 21, 2010.
- Villavicencio AT, Nelson EL, **Mason A**, Carr F, Burneikiene S. Outpatient Instrumented Lumbar Interbody Fusion Changing the Standard of Care. NASS 25<sup>th</sup> Annual Meeting October 5-9 2010, Orlando, Florida.
- **Mason A**. Advances in Cerebrovascular Neurosurgery. 7<sup>th</sup> Annual Symposium Current Techniques in the Treatment of Cranial and Spinal Disorders. Broomfield, Colorado, September 11, 2010.
- Burneikiene S, Babuska JM, Ashton A, Busch E, Nelson EL, Mason A, Villavicencio AT. Prospective Randomized Double Blinded Clinical Study Evaluating the Correlation of Clinical Outcomes and Cervical Sagittal Alignment. 26<sup>th</sup> Annual Meeting of the

- European Section of the Cervical Spine Research Society, 26 29 May, 2010, Corfu Island, Greece.
- Villavicencio AT, Burneikiene S, Nelson L, **Mason A**. Feasibility of Interbody Lumbar Fusion Performed on an Outpatient Basis. American Association of Neurological Surgeons Annual Meeting, Philadelphia, Pennsylvania, May 1-5, 2010.
- Villavicencio AT, Burneikiene S, Babuska J, Nelson L, Mason A. Correlation of Change in Segmental Sagittal Alignment and Clinical Outcomes after Anterior Cervical Discectomy and Fusion Surgery. American Association of Neurological Surgeons Annual Meeting, Philadelphia, Pennsylvania, May 1-5, 2010.
- Burneikiene S, Villavicencio AT, Nelson L, **Mason A**, McNeely L. CyberKnife Radiosurgery for Spine Tumors. Spinal Cord and Volume Analysis. 7<sup>Th</sup> Annual Mazama Spine Summit, Winthrop, WA, March 3-5, 2010.
- Burneikiene S, Villavicencio AT, Nelson L, Mason A. Outpatient Instrument Lumbar Interbody Fusion. Preliminary Results on Safety and Efficacy. 7<sup>Th</sup> Annual Mazama Spine Summit, Winthrop, WA, March 3-5, 2010.
- Villavicencio AT, Nelson L, **Mason A**, Burneikiene S. Feasibility of Outpatient Interbody Lumbar Fusion. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Orlando, Florida, February 17-20, 2010.
- Burneikiene S, Villavicencio AT, Babuska J, Nelson L, Mason A. Correlation of Clinical Outcomes and Change in Segmental Sagittal Alignment after Anterior Cervical Discectomy and Fusion Surgery. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Orlando, Florida, February 17-20, 2010.
- Nelson EL, Villavicencio AT, **Mason A**, Burneikiene S. Early Clinical Results of Complex Spinal Instrumentation using Multidimensional Surgical Imaging Systems. 2nd International Spinal Imagining and Navigation Symposium (SINS), November 21, 2009, Seoul, Korea.
- Villavicencio AT, Burneikiene S, Babuska MJ, Ashton A, Busch E, Mason A.
   Correlation of Clinical Outcomes and Cervical Sagittal Alignment: A Prospective Randomized Clinical Study. 24<sup>th</sup> Annual NASS Meeting, November 10 14, 2009, San Francisco, California.
- Villavicencio AT, Babuska JM, **Mason A**, Burneikiene S. Preliminary Clinical Experience Using a Minimally Invasive Spinous Process Fusion Plate. 2009 CNS Annual Meeting, October 24 29, 2009, New Orleans, Louisiana.
- Mason A. Blood in the Brain: Diagnosis, Evaluation and Treatment. Current Techniques in the Treatment of Cranial and Spinal Disorders, Broomfield, Colorado, October 17, 2009.
- Villavicencio AT, Burneikiene S, Babuska JM, **Mason A**. Aspen Spinous Process System: Preliminary Clinical Experience. XIV World Congress of Neurological Surgery (AANS), August 30 September 4, 2009 Boston, Massachusetts.
- Nelson EL, Burneikiene S, **Mason A**, Villavicencio AT. Preliminary Clinical Experience with the O-arm for Complex Spinal Instrumentation. XIV World Congress of Neurological Surgery (AANS), August 30 September 4, 2009 Boston, Massachusetts.
- Villavicencio AT, Burneikiene S, **Mason A**. Clinical Use of Osteogenic Protein (OP-1) for Instrumented Posterolateral Fusion. XIV World Congress of Neurological Surgery (AANS), August 30 September 4, 2009 Boston, Massachusetts.
- Villavicencio AT, Babuska JM, Burneikiene S, Ashton A, Busch E, **Mason A**. Correlation of Clinical Outcomes and Cervical Sagittal Alignment: A Prospective

- Randomized Clinical Study. XIV World Congress of Neurological Surgery (AANS), August 30 September 4, 2009 Boston, Massachusetts.
- Burneikiene S, Villavicencio AT, Nelson EL, Mason A. Clinical use of Osteogenic Protein(OP-1) for Instrumented Posterolateral Fusion. NASS Spring Break, April 23 – 25, 2009, Rio Grande, Puerto Rico.
- Burneikiene S, Villavicencio AT, Nelson EL, Burneikiene S, Babuska JM, Ashton A, Busch E, Mason A. Correlation of Clinical Outcomes and Cervical Sagittal Alignment: A Prospective Randomized Clinical Study. NASS Spring Break, April 23 – 25, 2009, Rio Grande, Puerto Rico.
- Villavicencio, AT, Burneikiene S, Nelson EL, Mason A. Clinical Evaluation of Osteogenic Protein (OP-1) for Instrumented Posterolateral Fusion. 2009 AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 11 – 14, 2009, Phoenix, Arizona.
- Nelson EL, Burneikiene S, **Mason A**, Villavicencio AT. Preliminary Clinical Experience with the O-arm for Complex Spinal Instrumentation. 2009 AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 11 14, 2009, Phoenix, Arizona.
- Villavicencio AT, Nelson EL, Babuska JM, Mason A, Burneikiene S. Preliminary Clinical Experience Using a Mini-Open Aspen Spinous Process System. 2009 AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 11 – 14, 2009, Phoenix, Arizona.
- **Mason A**, Nelson EL, Burneikiene S, Babuska JM, Ashton A, Busch E, Villavicencio AT. Prospective Randomized Clinical Study Evaluating the Correlation of Clinical Outcomes and Cervical Sagittal Alignment. 22<sup>nd</sup> Annual Neurosurgery in the Rockies Meeting, February 21 25, 2009, Beaver Creek, Colorado.
- Mason A. Cerebrovascular Update: Current Concepts. Current Techniques in the Treatment of Cranial and Spinal Disorders, Broomfield, Colorado, November 15, 2008.
- Mason A. Washington Update: Reflections on a Year in Washington DC: Grand Rounds presentation for the Department of Neurosurgery, Cleveland Clinic, Cleveland, Ohio, 2006.
- **Mason A.** Spine Trauma and Common Spinal Pathology, 9<sup>th</sup> Annual Innovations in Neuroscience Nursing Summit, Cleveland, Ohio 2006.
- Mason A, Mayberg M, Staugaitis SM, Asa SL, Nasr C. Acromegaly and Somatotroph Hyperplasia with Adenomatous Transformation due to Pituitary Metastasis of a GHRH-Secreting Pulmonary Endocrine Tumor, The Endocrine Society Meeting, May, 2004, New Orleans, LA.
- **Mason A.** The Etiology of Peritumoral Edema in Meningiomas, Grand Rounds Presentation, Department of Neurosurgery, University of Cincinnati, 1999.
- Falcone R, Mason A. Widened Mediastinum: The Harbinger of Severe Injury in the Trauma Patient, The Ohio State Unviersity, Department of Surgery and Grant Medical Center, Columbus, Ohio, 1997
  - -Presentation, 36<sup>th</sup> North American Federation Congress of the College of Surgeons, June, 1999
  - -Presentation, Landacre Research honorary in April, 1998
- Martin D, Riley P, **Mason A.** Bronchitis and the Prescription of Antibiotics, The Ohio State University, Department of Emergency Medicine, 1996

• Morris-Hooke A, **Mason A.** Streptococcus equi equine vaccine development for upper respiratory infections. Department of Microbiology, Miami University, 1992-94.

#### RESEARCH EXPERIENCE

- DuraSeal<sup>TM</sup> Spine System Post-Approval Study. Sponsor Covidien, PI Villavicencio (2011 present)
- Prospective Randomized Clinical Trial Comparing PEEK and Allograft Spacers in Patients Undergoing Spinal Intervertebral Fusion Surgeries. Sponsor Justin Parker Neurological Institute. (2011 present)
- A Pivotal Clinical Trial Evaluating the Safety and Effectiveness of Adherus Sealant When Used as a Dural Sealant in Cranial Procedures. Sponsor HyperBranch Medical Technology, Inc. (2011 2011)
- A Radiographic and Clinical Study Evaluating a Novel Allogeneic, Cancellous, Bone Matrix Containing Viable Stem and Osteoprogenitor Cells (Trinity Evolution<sup>TM</sup> Viable Cryopreserved Cellular Bone Matrix in Posterior Lumbar or Transforaminal Lumbar Interbody Fusion. Sponsor Orthofix Spinal Implants. (2009 present)
- Clinical Evaluation of the O-ARM Imaging System. Prospective Clinical Study. Sponsor

   Medtronic. (2009 present)
- Evaluation of safety and Effectiveness of the OsseoFix™ Spinal Fracture Reduction System in Treating Spinal Compression Fracture. Sponsor Alphatec Spine. (2009 present)

### PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

- Congress of Neurological Surgeons, candidate resident member, 2000 present.
- American Association of Neurological Surgeons, resident member, 2001 -present.
- American Medical Association, member, 1996-present.
- Basic life support (BLS), current certification.
- Advanced cardiac life support (ACLS), current certification.
- Advanced trauma life support (ATLS), current certification.
- Class 1A Fire Fighter, State of Ohio, 1990-present.

### **INTERESTS**

#### Academic

- Cerebrovascular, complex tumor and skull base surgery
- Complex spinal reconstruction, outcomes

### Non-academic

- Fly-fishing, cooking, and trekking
- Father of three, and husband to a Board-certified Emergency Medicine physician, Kerri Mason, MD, FACEP