

# **CURRICULUM VITAE**

**Anthony Lawrence Asher, MD, FAANS, FACS**

## **PERSONAL DATA**

Birth date: April 20, 1959  
Place of Birth: Detroit, Michigan  
Citizenship: United States  
Professional Address: Carolina Neurosurgery & Spine  
Associates  
225 Baldwin Ave North  
Charlotte, NC 28204  
Phone: 704-376-1605

## **EDUCATION**

1978-1982 Kalamazoo College, (Religion/Biology)  
Kalamazoo, MI  
1982-1985 Wayne State University School of  
1986-1987 Medicine, Detroit, MI  
1985-1986 Howard Hughes Medical Institute-NIH  
Research Scholar (Inaugural class)  
National Cancer Institute, Bethesda, MD

## **POSTGRADUATE TRAINING**

1987-1989 Intern/Resident, Department of Surgery  
University of Michigan, Ann Arbor, MI  
1989-1991 Staff Fellow, Surgery Branch  
National Cancer Institute, Bethesda, MD  
1991-1995 Resident, Department of Neurosurgery  
University of Michigan, Ann Arbor, MI

## **OTHER TRAINING**

2012	Executive Leadership Program in Healthcare Policy and Management Brandeis University, MA
2014	Patient Safety Executive Development Program, Institute for Healthcare Improvement, Cambridge, MA
2016	Advanced Training Program in Healthcare Delivery Leadership Intermountain Healthcare Leadership Institute, Salt Lake City, UT

## **LICENSURE**

Diplomate, American Board of Medical Examiners

State of Michigan (License Number: 4301051671)

State of North Carolina (License Number: 95-00499)

State of South Carolina (License Number: 19316)

## **BOARD CERTIFICATION**

Diplomate, American Board of Neurological Surgeons

## **MILITARY SERVICE**

1990-1998	Commissioned Officer (Lieutenant Commander) United States Naval Reserve Medical Corps
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## HONORS AND AWARDS

1978	Alpha Lambda Delta Scholastic Honor Society
1979	Light Foreign Study Fellowship, Caen, France
1982	B.A. Cum Laude, Kalamazoo College; Senior Fellow, Department of Religion
1985	Alpha Omega Alpha Honor Medical Society
1987	M.D. with Distinction in Biomedical Research, Wayne State University School of Medicine
1989	Young Investigator Award, Department Of Surgery University of Michigan Hospitals
2010	Brain Lab Community Neurosurgery Award AANS/CNS Section on Tumors
2003–2016	Best Doctors in America
2006-2016	Top Doctors for Cancer Care
2012	Richard C. Schneider Lectureship American Association of Neurological Surgeons
2012	American College of Surgeons/American Association of Neurological Surgeons Health Policy Leadership Scholar
2016	Leksell Radiosurgery Award, American Association of Neurological Surgeons

## COUNCILS, COMMITTEES and NATIONAL LEADERSHIP POSITIONS

### Senior leadership positions highlighted

**American Association of Neurological Surgeons:** Co-founder and Director, National Quality and Outcomes Database (QOD) 2008-present; Director and Vice President, Neuropoint Alliance (NPA), 2008-present; Co-Director, AANS-American Academy of Physical Medicine and Rehabilitation (AAPMR) Spine Quality and Outcomes Database (SQOD), 2015-present; Director at Large, AANS Board of Directors 2013-2016; Board of Directors, AANS/ASTRO Joint Radiosurgery Registry Program 2013-present

**Congress of Neurological Surgeons:** President 2007-2008; Executive Committee, 2000-2009; Annual Meeting and Strategic Planning Chairman, 2006-2007; Scientific Program Chairman, 2005-2006; Vice President, 2004-2005; Education, Information Technology and Publications Committees, 2003-2009; Education Science Subcommittee 2008-2014; Chairman, Nominating Committee 2009-2010; Chairman, Committee for Long Range Planning and Development of NEUROSURGERY 2007-2009

**American Board of Neurological Surgeons:** Vice Chairman, 2017-present; Director, 2012-present; Chairman, ABNS Quality Improvement and Data Use Committee 2012-present; Extramural Written Examination Committee, American Board of Neurological Surgery; 2002-2010, Co-Developer, ABNSlog

**Society of Neurological Surgeons:** SNS Portal Operations Committee

**American College of Surgeons:** Chairman, CNS Organ Site Committee, American College of Surgeons Oncology Group (ACOSOG), 2002-2004; Executive Committee, ACOSOG 2002-2004

**AANS/CNS Washington Committee:** 2006-2008, Member; AANS/CNS Quality Improvement Workgroup 2008-present; Vice Chairman, Neurosurgery Quality Council 2015-present

**AANS/CNS Section on Tumors:** Executive Committee, 1998-2009; Chairman and Founder, AANS/CNS Academic-Community Brain Tumor Alliance, 2005-2010

**American Medical Association:** Chairman, Privacy and Research Task Force, American Medical Association (AMA) National Quality Registry Network Council (NQRN) 2014-2016; NQRN Steering Committee, 2016-present

**National Quality Forum (NQF):** Surgery Standing Committee, 2014-2016

**COUNCILS, COMMITTEES and NATIONAL LEADERSHIP POSITIONS  
(continued)**

**Senior leadership positions highlighted**

**Other Regional and National Quality Programs:** Member, Neurological and Spine Disorders Clinical Working Groups, Centers for Medicare and Medicaid Services Episode Grouper Project 2013-2014; Consultant, HHS Secretary Advisory Committee on Human Subject Protections 2014; Multi-specialty Taskforce on Human Subjects Research Protections; 2010-present; 2005-2014; US News and World Report Best Hospitals for Common Care Medical Advisory Panel 2015; American Board of Medical Specialties Improvement in Medical Practice Task Force 2016; Board of Directors, Ambulatory Surgery Center Association, Director and Principal CMS Clinical Contact NPA-Qualified Clinical Data Registry (QCDR)

**Other Regional and National Cancer Programs:** Co-Founder and Director, Brain Tumor Fund for the Carolinas 2003-2014; Radiation Therapy Oncology Group (RTOG) Brain Tumor Committee; 2006-present; Advisory Board, Glioma Outcomes Project, 2000-2004; Cancer Committee, Carolinas Medical Center and Levine Cancer Institute, 1998-present; PLWC Advisory Board, American Society of Clinical Oncology 2006-2013

**ACADEMIC APPOINTMENTS**

Clinical Professor of Neurosurgery, University of North Carolina, Chapel Hill and Carolinas Medical Center

Adjunct Clinical Professor of Neurosurgery, Vanderbilt University and Penn State University

Adjunct Professor of Biology, University of North Carolina, Charlotte

## **MEDICAL DIRECTORSHIPS**

Medical Director and Chief of Clinical Services, Neuroscience Institute, Carolinas Healthcare System, 2012-present

Director, Neurological Surgery Residency Program, Carolinas Medical Center 2013-present

Surgical Director, NeuroOncology Program, Levine Cancer Institute, Carolinas Healthcare System, 1998-present

Chairman, Department of Neurological Surgery, Presbyterian Hospital, Charlotte, North Carolina 2006-2009

Medical Director, Charlotte Brain Tumor Support Group 2002-2008

Director of Neurosurgical Education and Quality Research, Carolina Neurosurgery and Spine Associates 2010-present

## **EDITORIAL ACTIVITIES**

Editor in Chief, Select Review in Neuro-Oncology (2003-2007)

Editor in Chief, Self-Assessment in Neurological Surgery, Lifelong Learning (SANS) (2001-2005). Chairman, SANS Committee, Congress of Neurological Surgeons (2001-2006)

Editorial Board, Neuro-Oncology (1999-2003)

Reviewer: Cancer Research, Surgical Neurology, Neurosurgery, Journal of Neurosurgery, NeuroOncology, Journal of NeuroOncology, SPINE, Neurosurgery *Focus*, World Neurosurgery

Editorial Board, Neurosurgery On-Call

Co-Editor, Quality and Outcomes in Neurological Surgery, December 2015 Journal of Neurosurgery *FOCUS*

## **EMPLOYMENT**

Carolina Neurosurgery and Spine Associates, Charlotte, NC (1995-Present)

## **PROFESSIONAL MEMBERSHIPS**

### **(Elected memberships highlighted)**

American Association of Neurological Surgeons, Congress of Neurological Surgeons, Southern Neurosurgical Society, Society of Neurological Surgeons, American Academy of Neurological Surgeons, Southern Neurosurgical Society, American Medical Association, American College of Surgeons (Fellow), North Carolina Neurosurgical Society

## **SELECTED LECTURESHIPS**

**Visiting Professor:** Departments of Neurosurgery: University of Michigan Hospitals, Penn State University School of Medicine, University of Louisiana Shreveport Medical Center, Oregon Health Sciences University, Rush University School of Medicine, University of Alabama Medical School, University of Florida Medical School, University of Virginia Medical School, Columbia University School of Medicine, University of Buffalo Medical School, Jefferson Medical College, Rochester University School of Medicine, Washington University School of Medicine, New York-Presbyterian/Weill Cornell Medical Center

**Honored Guest Lecturer:** Japanese Congress of Neurological Surgeons; South Carolina, Alabama, Pennsylvania and Florida State Neurosurgical Societies, Rocky Mountain Neurosurgical Society

**Presidential Address:** Congress of Neurological Surgeons

**Richard C. Schneider Lecturer:** American Association of Neurological Surgeons

**John E. Adams Lecturer:** University of California San Francisco Department of Neurological Surgery

**Boldrey Lecturer:** San Francisco Neurological Society

**Keynote Speaker:** Comparative Effectiveness Research Summit, Lahey Clinic, Geisinger Comparative Effectiveness Research and Policy Conference, North American Neuromodulation Society, American Board of Medical Specialties Maintenance of Certification Summit, HHS Office for Human Research Protections Big Data Summit, Ozarks Neuroscience Education Clinics, MedPac Quality Registry Forum, American Board of Medical Specialties (ABNS): Advancing Medical Evidence Summit, ABNS National Policy Forum, NIH-ASTRO Big Data Summit, NINDS Launching Effectiveness Research to Guide Practice in Neurosurgery Conference, Second Annual Value in Healthcare Forum, NeuroSafe 2016

**Invited Lecturer:** AANS/CNS Tumor Section Satellite Meeting, North American Spine Society (NASS) Spine Summit, 11<sup>th</sup> Annual UCSF Spine Symposium, National

**RESEARCH CERTIFICATION**

2002 Clinical Trials Investigator Certification,  
Association of Clinical Research  
Professionals (recertification 2004, 2007,  
2010, 2013)

**LABORATORY RESEARCH EXPERIENCE**

1982 Undergraduate Research Assistant  
National Institutes of Health  
(With Dr. Harvey Pollard, NIADDK)

1983, 1984 Summer Research Fellow  
National Institutes of Health  
(With Dr. Harvey Pollard, NIADDK)

1985-1986 Howard Hughes Medical Institute/NIH  
Research Scholar  
National Cancer Institute  
(With Dr. Steven A. Rosenberg)

1989-1991 Staff Fellow, Surgery Branch  
National Cancer Institute  
(With Dr. Steven A. Rosenberg)



## **SELECTED CLINICAL PROTOCOL EXPERIENCE**

Principal Investigator: “Prospective, Open-Label, Parallel-Group, Randomized, Multicenter Trial Comparing the Efficacy of Surgery, Radiation, and Infection of Murine Cells Producing Herpes Simplex Thymidine Kinase Vector Followed by Intravenous Ganciclovir Against the Efficacy of Surgery and Radiation in the Treatment of Newly Diagnosed, Previously Untreated Glioblastoma”, Carolinas Medical Center

Principal Investigator: “Phase III Randomized Study of SU101 versus Procarbazine for Patients with Glioblastoma Multiforme in First Relapse”, Carolinas Medical Center

Co-Investigator: “Phase I Trial of Surgery Gliadel and Carboplatin in Combination with Radiation Therapy for Anaplastic Astrocytoma or Glioblastoma Multiforme”, Carolinas Medical Center

Principal Investigator: “Phase I Study Of A Recombinant Chimeric Protein Composed Of Circularly Permuted IL-4 and Mutated Form of the Pseudomonas Exotoxin Termed IL-4 (38-37)-PE38KDEL for the Treatment of Recurrent Malignant Astrocytoma, Carolinas Medical Center

Principal Investigator: “A Study to Evaluate Normal Brain Tissue Cells and Cancerous Brain Tissue Cells for the Expression of Interleukin-4 and Interleukin-13 Receptors”, Carolinas Medical Center

Principal Investigator: “Phase II Trial of Surgery with Gliadel and Radiation in Patients with Operable CNS Metastasis from Systemic Cancer”, Carolinas Medical Center (Study Support: Guilford Pharmaceutical)

Principal Investigator: “Open label, Non-Randomized Multicenter Study of Interstitial <sup>131</sup>I-chTNT-1/B for the Treatment of Newly Diagnosed or Recurrent Malignant Glioma”, Carolinas Medical Center

Principal Investigator: “A Phase II Study Utilizing the Gliasite Radiation Therapy System for the Treatment of Resected Solitary Brain Metastases”, Carolinas Medical Center

RTOG Principal Investigator: “A Phase III Randomized Trial of the Role of Whole Brain Radiation Therapy in Addition to Radiosurgery in the Management of Patients with One to Three Cerebral Metastases” Multi-Institutional, Cooperative NCI Trial Administered through the North Central Cancer Treatment Group and Radiation Therapy Oncology Group. (Study Support: NCI: U10CA180821, U10CA180882, CA076001, CA025224, RTOG U10CA21661, NRG U10CA180868 and U10CA180822)

Principal Investigator: “Glioma Outcomes Project”, Carolinas Medical Center, Presbyterian Hospital and Northeast Medical Center

## **CLINICAL PROTOCOL EXPERIENCE (continued)**

Principal Investigator: “A Phase III Study utilizing Focal Radiation in Patients with 1-3 Brain Metastases”, Carolinas Medical Center

Principal Investigator: “Temozolomide as Neoadjuvant and Chemo-radiotherapy Following Resection and GLIADEL® Wafer Placement in Patients with Newly Diagnosed High-grade Glioma, A Phase I/II Analysis”, Carolinas Medical Center, Barrow Neurological Institute, University of Pennsylvania Center (Study Support: Guilford Pharmaceutical)

Principal Investigator: “A Phase III Randomized Evaluation of Convection Enhanced Delivery or IL-13-PE38QQR Compared to Gliadel Wafer with Survival Endpoint in Glioblastoma Multiforme Patients at First Relapse”, Carolinas Medical Center

Principal Investigator: “Randomized, Third-Party Blinded, Multicenter, Clinical Trial to Determine the Safety and Effectiveness of Oxiplex/SP Gel for Reduction of Pain and Symptoms Following Lumbar Disc Surgery”, Carolinas Medical Center

Principal Investigator: “A Phase I Study of Convection Enhanced Delivery (CED) of IL 13-PE38QQR Infusion After Resection Followed by Radiation Therapy With or Without

Temozolomide in Patients with Newly Diagnosed Supratentorial Malignant Glioma”. Carolinas Medical Center

Principal Investigator: “A Phase III Multicenter Study of Intratumoral/Interstitial Therapy with Trans MID compared to BSC in Patients with Progressive and/or Recurrent Non-resectable GBM Protocol KSB311R/CIII/001”, Carolinas Medical Center

Principal Investigator: “Phase II Open-Label, Multiple-Dose Study of Intracavitary Administered 131 I-TM-601 in Adult Patients with Recurrent High Grade Glioma Protocol TM 601-002”, Carolinas Medical Center

Principal Investigator: “A Prospective Analysis of Neoadjuvant Radiosurgery and Surgical Resection for the Treatment of 1-3 Cerebral Metastases”, Carolinas Medical Center (Study Support: Brain Tumor Fund of the Carolinas)

Principal Investigator: “A Phase 2, Multicenter, Exploratory Study, Evaluating the Treatment Effect of Surgery Plus GLIADEL® Wafer in Patients with Metastatic Brain Cancer”, Carolinas Medical Center

Principal Investigator: GLIA-001, "A Phase II, Multicenter, Exploratory Study, Evaluating the Treatment Effect of Surgery Plus GLIADEL® Wafer in Patients with Metastatic Brain Cancer”, Carolinas Medical Center

Co-Principal Investigator: “Hyperbranch Medical Technology NuSeal 100 Dural Sealant Feasibility IDE Study”, Carolinas Medical Center (Study Support: Hyperbranch Corporation)

## **CLINICAL PROTOCOL EXPERIENCE (continued)**

Co-Principal Investigator: “Neurosurgery Patient Outcomes in Treating Spinal Disorders” (NEUROPOINT-SD), Carolinas Medical Center

Co-Investigator, “Predictive models for 12 month Outcomes Following Lumbar Spine Surgery” (Support: Neurosurgery Research and Education Fund)

Principal Investigator: “Reducing readmission and LOS following elective lumbar spine surgery”: AANS-Institute for Healthcare Improvement (IHI-Cambridge, MA)  
Cooperative Project (Support: Neurosurgery Research and Education Fund)

Alliance Co-Chairman (neurosurgical lead): “Phase III Trial of Stereotactic Radiosurgery compared with Whole Brain Radiotherapy (WBRT) for 5-15 Brain Metastases” (CCTG CE.7) (submitted to CTEP).

RTOG Co-Principal Investigator: “A Randomized Phase II Trial of Pre-Operative Compared to Post-Operative Stereotactic Radiosurgery (SRS) in Patients with Resected Brain Metastases” (submitted to CTEP).

## BIBLIOGRAPHY

### ARTICLES

1. Levine M., **Asher A.**, Pollard N., and Zinder O. Ascorbic acid and Catecholamine Secretion from Cultured Chromaffin Cells. *J. Bio Chem*, 258(21):13111-13115, 1983.
2. **Asher A.**, Mule J., Shiloni E., and Rosenberg S.A. Anti-Tumor Activity of Human Recombinant Tumor Necrosis Factor (hRTNF) Against Newly-Induced Murine Tumors. *Surg. For.*, 37:427-430, 1986.
3. **Asher A.**, Mule J., Reichert C., Shiloini E., and Rosenberg S.A. Studies on the Anti-Tumor Efficacy of Systematically Administered Recombinant Tumor Necrosis Factor against Several Murine Tumors In-Vivo. *Journal of Immunology*, 138(3):936-974, 1987.
4. Mule J., **Asher A.**, McIntosh J., Lafreniere R., Shiloni E., Lefor A., Reichart C., and Rosenberg S.A. Anti-Tumor Effect of Recombinant Tumor-Necrosis Factor-alpha Against Murine Sarcomas at Visceral Sites: Tumor Size Influences the Response to Therapy. *Cancer Immunology and Immunotherapy*, 26:202-208, 1988.
5. **Asher A.**, Mule J., and Rosenberg S.A. Recombinant Human Tumor necrosis Factor Mediates Regression of a Murine Sarcoma In-Vivo via Lyt-2+ Cells. *Cancer Immunology and Immunotherapy*, 28:153-156, 1989.
6. **Asher A.**, Mule J., Kasid A., Restifo N.P., Salo J.C., Jaffe G., and Rosenberg S.A. Murine Tumor Cells Transduced with the Gene for TNF-alpha: Evidence for Paracrine Immune Effects against Tumors. *Journal of Immunology*, 146 (9):3227-3234, 1991.
7. Barth R., Mule J., **Asher A.**, Sanda M., and Rosenberg S.A. Identification of Unique Murine Tumor Associated Antigens by Tumor Infiltrating Lymphocytes Using Tumor Specific Secretion of Interferon-gamma and Tumor Necrosis Factor. *Journal of Immunological Methods*, 140:269-279, 1991.
8. Restifo R., Esquivel F., **Asher A.**, Stotter H., Barth R., Bennink J., Mule J., Yewdell J., and Rosenberg S.A. Defective Presentation of Endogenous Antigens by a Murine Sarcoma: Implications for the Failure of an Anti-Tumor Immune Response. *Journal of Immunology*, 147:1453-1459, 1991.
9. Karp S.E., Farber A., Salo J.C., Hwu P., Jaffe G., **Asher A.**, Shiloni E., Restifo N.P., Mule J., and Rosenberg S.A.. Cytokine Secretion by Genetically Modified Non-Immunogenic Murine Fibrosarcoma: Tumor Inhibition by IL-2 but not TNF. *Journal of Immunology*, 150:896-908, 1993.

## ARTICLES (continued)

10. Dover P., **Asher A.**, Ballinger W., Varrichio F., and Puri R. In-Situ Expression of IL-4 Receptor in Primary Malignant Gliomas. *Cancer Research*, November 2001.
11. Hall W., Rustamzadeh E., and **Asher A.** Convection Enhanced Delivery in Clinical Trials. *Neurosurgical Focus*, 14(2) Article 2, 1-4 February 2003.
12. Weber, Friedrich; **Asher, A.**; Bucholz, Richard; Berger, Mitchel; Prados, Michael; Chang, Susan; Bruce, Jeffrey; Hall, Walter; Rainov, Nikolai G.; Westphal, Manfred; Warnick, Ronald; Rand, Robert; Floeth, Frank; Rommel, Frank; Williams, Roger L.; Hingorani, Vijay N.; and Puri, Raj K. Safety, Tolerability and Tumor Response of IL4-Pseudomonas Exotoxin (NBI-3001) in Patients with Recurrent Malignant Glioma. *Journal of Neuro-Oncology* 64:125-137, 2003.
13. Weber FW, Floeth F, **Asher A**, Bucholz R, Berger M, Prados M, Chang S, Bruce J, Hall W, Rainov NG, Westphal M, Warnick RE, Rand RW, Rommell F, Pan H, Hingorani VN, Puri RK. Local convection enhanced delivery of IL4-Pseudomonas exotoxin (NBI-3001) for treatment of patients with recurrent malignant glioma. *Acta Neurochir Suppl.* 2003; 88:93-103
14. Edward R. Laws, Ian F. Parney, Wei Huang, Fred Anderson, Angel Morris, **Anthony Asher**, Kevin Lillehei, Mark Bernstein, Henry Brem, Andrew Sloan, Mitchel Berger, Susan Chang and the Glioma Outcomes Investigators. Survival Following Surgery, and Prognostic Factors For Newly Diagnosed Malignant Glioma: Data From The Glioma Outcomes Project *J. Neurosurg* 99:467-473, 2003.
15. Fraser R., Limentani S., Dollar J., and **Asher A.** Case report: Recurrent Primary Fibrosarcoma of the Brain Treated with the Gliasite Brachytherapy System. *Surg Neurol.* 60 (6):579-83, 2003.
16. Shaffrey M., Mut M., **Asher A.**, Burri S., Chahlavi A., Chang S., Farace E., Fivesash J, Hentschel S., Lang F., Lopes M., Markert J., Schiff D., Siomin V., Tatter S., and Vogelbaum M. Brain Metastases. *Current Problems in Surgery*, 41, (8):647-742, 2004.
17. Lang F. and **Asher A.** Neurosurgical Brain Tumor Trials: Design, Endpoints, Implementation, Relative Benefits of Alternative Paradigms and Optimization. *Journal of Neuro-Oncology*, 69: 151-167, 2004.
18. Shaffrey, ME, Melike, M, **Asher, AL**, Burri, SH, Chahlavi, A, et. al. Brain Metastases. *Current Problems in Surgery*, 41 (8): 647-742, 2004.

## ARTICLES (continued)

19. Chang, Susan M., Parney, Ian F., Huang, Wei, Anderson, Frederick A., Jr. **Asher, A.**, Bernstein, Mark, Lillehei, Kevin O., Brem, Henry, Berger, Mitchel S., Laws, Edward R. and the Gliomas Outcome Project investigators. Patterns of Care for Adults with Newly Diagnosed Malignant Glioma: Data from the Glioma Outcomes Project. *JAMA*. 2005 Feb 2; 293 (5):557-64.).
20. Limentani S., **Asher A.**, Fraser R., Heafner M., Kim J., Fraser, R. A Phase I Trial of Surgery, Gliadel Wafer Implantation, and Immediate Postoperative Carboplatin in Combination with Radiation Therapy for Primary Anaplastic Astrocytoma and Glioblastoma Multiforme. *Journal of Neuro-Oncology*, 72: 241-244, 2005.
21. Burri, S., **Asher, A.** Brain Metastases. *American Academy of Neurology Continuum*, 11 (5): 13-29, 2005.
22. Patel S., Shapiro W., Laske D., Jensen R., **Asher A.**, Wessels B., Carpenter S., Shan J. Safety and Feasibility of Convection-Enhanced Delivery of Cotara for the Treatment of Malignant Glioma: Initial Experience in 51 Patients. *Neurosurgery*. 2005 Jun; 56 (6):1243-52.
23. Rogers, Lisa R., D.O., Sills, Allen K., Vogelbaum, Michael A., Suh, John H., Rock, Jack P., Ellis, Thomas L., Stiber, Volker W., **Asher, A.**, Fraser, Robert W., Billingsley, Judith S., RN, Arrambide, Stacey, M.S., Shaw, Edward G. Initial Results of Phase II Study Utilizing the GliaSite RTS ® for the Treatment of a Resected Single Brain Metastasis *J Neurosurg*. 2006 Sep; 105(3):375-84.
24. Ragel, BT, **Asher, AL**, Selden, NR, Macdonald, JD. Self-Assessment in Neurological Surgery (SANS): The SANS Wired White Paper. *Neurosurgery*. 2006 Oct; 59(4):759-65
25. Kondziolka D., **Asher A.** Integrated Medical Learning. *Neurosurgery Quarterly* 2006 December; 7(3): 11-13
26. Vogelbaum M., Sampson J., Kunwar S., Chang S., Shaffrey M., **Asher A.**, Lang F., Croteau D., Parker K., Grahn A., Sherman J., Puri R. Convection-Enhanced Delivery of Cintredekin Besudotox (IL13-PE38QQR) Followed By Radiation Therapy Without And With Temozolomide In Newly Diagnosed Malignant Glioma: Phase 1 Study Final Safety Results. *Neurosurgery*, 2007, November; 61(5):1031-7
27. Chadwick, G., **Asher, A.**, VanDerVeer, C., and Pollard, R. Adverse Reaction of Topical Papaverine on Auditory Nerve Function. *Acta Neurochirurgica*, September 2008, 150 (9)

## ARTICLES (continued)

28. Brown, P., **Asher, A.** and Farace, E. Adjuvant Whole Brain Radiotherapy: Strong Emotions Decide But Rational Studies Are Needed. *International Journal of Radiation Oncology, Biology, Physics* 2008 April 70 (5) 1305-9
29. **Asher, A.**, Kondziolka, K and Selden N. Addressing Deficiencies in American Healthcare Education: A Call for Informed Instructional Design. *Neurosurgery*, 2009, August 65 (2) 223-230
30. Scarrow, A., Linskey, M., **Asher, A.**, Anderson, V. and Selden, N. Neurosurgeon Transition to Retirement: Results of the 2007 Congress of Neurological Surgeons Consensus Conference. *Neurosurgery*, 2009, August 65 (2) 231-236
31. **Asher, A.** Enlightened Learning in a Knowledge Society. *Clinical Neurosurgery*, 2009, September 55: 1-7
32. Vogelbaum, M., **Asher, A.**, Kondziolka, D., Boulis, N., Selden, N., Hoh, B., and Barker, F. Modern treatment of cerebral metastases: Interactive Medical Learning<sup>SM</sup> at CNS 2007. *J. Neurooncol* 2009 93: 89-105
33. Connolly, S., Hoh, B., Selden, N., **Asher, A.**, Kondziolka, K., Boulis, N., and Barker, F. Clipping versus coiling for ruptured intracranial aneurysms: Interactive Medical Learning<sup>SM</sup> at CNS 2007. *Neurosurgery* 2010, 66: 19-34
34. Linskey, M., Andrews, D., **Asher, A.**, Burri, S., Kondziolka, D., Robinson, P., Ammirati, M., Cobbs, C., Gaspar, L., Loeffler, J., McDermott, M., Mehta, M., Mikkelsen, T., Olson, J., Paleologos, N., Patchell, R., Ryken, T and Kalkanis, S. The role of stereotactic radiosurgery in the management of patients with newly diagnosed brain metastases: A systematic review and evidence-based clinical practice guideline *J Neurooncol.* 2010 Jan;96(1):45-68
35. Gaspar, L., Mehta, M., Patchell, R., Burri, S., Robinson, P., Morris, R., Ammirati, M., Andrews, D., **Asher, A.**, Cobbs, C., Kondziolka, D., Linskey, M., Loeffler, J., McDermott, M., Mikkelsen, T., Olson, J., Paleologos, N., Ryken, T., and Kalkanis, S. The role of whole brain radiation therapy in the management of newly diagnosed brain metastases: A systematic review and evidence-based clinical practice guideline *J Neurooncol.* 2010 Jan;96(1):17-32
36. Kalkanis, S., Kondziolka, D., Gaspar, L., Burri, S., **Asher, A.**, Cobbs, C., Ammirati, M., Robinson, P., Andrews, D., Loeffler, J., McDermott, M., Mehta, M., Mikkelsen, T., Olson, J., Paleologos, N., Patchell, R., Ryken, T. and Linskey, M. The role of surgical resection in the management of newly diagnosed brain metastases: A systematic review and evidence-based clinical practice guideline *J Neurooncol.* 2010 Jan;96(1): 33-43

## ARTICLES (continued)

37. Mehta, M., Paleologos, N., Mikkelsen, T., Robinson, P., Ammirati, M., Andrews, D., **Asher, A.**, Burri, S., Cobbs, C., Gaspar, L., Kondziolka, D., Linskey, M., Loeffler, J., McDermott, M., Olson, J., Patchell, R., Ryken, T., and Kalkanis, S. The role of chemotherapy in the management of newly diagnosed brain metastases: a systematic review and evidence-based clinical practice guideline J Neurooncol 2010 Jan;96 (1): 71-83
38. Ammirati, M., Cobbs, C., Linskey, M., Paleologos, N., Ryken, T., Burri, S., **Asher, A.**, Loeffler, J., Robinson, P., Andrews, D., Gaspar, L., Kondziolka, D., McDermott, M., Mehta, M., Mikkelsen, M., Olson, J., Patchell, R. and Kalkanis, S. The role of retreatment in the management of recurrent/progressive brain metastases: a systematic review and evidence-based clinical practice guideline J Neurooncol. 2010 Jan;96(1):85-96
39. Mikkelsen, T., Paleologos, N., Robinson, P., Ammirati, M., Andrews, D., **Asher, A.**, Burri, S., Cobbs, C., Gaspar, L., Kondziolka, D., Linskey, M., Loeffler, J., McDermott, M., Mehta, M., Olson, J., Patchell, R., Ryken, T. and Kalkanis, S. The role of prophylactic anticonvulsants in the management of brain metastases: a systematic review and evidence-based clinical practice guideline J Neurooncol. 2010 Jan;96(1):97-102
40. Ryken, T., McDermott, M., Robinson, P., Ammirati, M., Andrew, D., **Asher, A.**, Burri, S., Cobbs, C., Gaspar, L., Kondziolka, D., Linskey, M., Loeffler, J., Mehta, M., Mikkelsen, M., Olson, J., Paleologos, N., Patchell, R., and Kalkanis, S. The role of steroids in the management of brain metastases: a systematic review and evidence-based clinical practice guideline J Neurooncol. 2010 Jan;96(1):103-14
41. Olson, J., Paleologos, N., Gaspar, L., Robinson, P., Morris, R., Ammirati, M., Andrews, D., **Asher, A.**, Burri, S., Cobbs, C., Kondziolka, D., Linskey, M., Loeffler, J., McDermott, M., Mehta, M., Mikkelsen, T., Patchell, R., Ryken, T., and Kalkanis, S. The role of emerging and investigational therapies for metastatic brain tumors: a systematic review and evidence-based clinical practice guideline of selected topics J Neurooncol. 2010 Jan;96(1):115-42
42. Sampson, J., Herndon, J., McLendon, R., Hasselblad, V., **Asher, A.**, McGirt, M., and Peterson, E Clinical Data Simplified J Neurosurg 2012 Feb; (2):346-8
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44. **Asher, A.**, McCormick, P., Selden, S., Ghogawala, Z and McGirt, M. The National Neurosurgery Quality and Outcomes Database: Rationale and Development History Neurosurg Focus. 2013, Jan; 34 (1): E2, 1-12



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## EDITORIALS

1. Burri S. and **Asher A.** In Regard to Regine et al. Risk of Symptomatic Brain Tumor Recurrence and Neurologic Deficit After Radiosurgery Alone in Patients with Newly Diagnosed Brain Metastases: Results and Implications. *Int J Radiat Oncol Biol Phys.* August 1, 2002; 53 (5):1393-4
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## BOOK CHAPTERS

1. **Asher A.**, “G418 Sensitivity Assay” in Laboratory Techniques in the Immunotherapy of Cancer. Rosenberg S.A., Editor. NCI 1991.
2. **Asher A.** and Quint D. “MRI of the Spine” in Principles of Spinal Surgery. Menzes A. and Sonntag V., Editors. McGraw-Hill, p. 193, 1996.
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## BOOK REVIEWS

1. **Asher A.** Book Review: Brain Tumors, An Encyclopedic Approach. NeuroOncology Volume 4, Issue 4, 2002.
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## EDUCATIONAL PRODUCT DEVELOPMENT

1. **Asher A.**, MacDonald J., and Selden N. Self Assessment in Neurological Surgery (SANS)-Lifelong Learning (www.sanswired.com) Congress of Neurological Surgeons. (Editor-in-Chief 2001-2005)
2. **Asher A.**, Kondziolka D. and Selden N. Integrated Medical Learning<sup>sm</sup>, Congress of Neurological Surgeons
3. **Asher A.** The Neurosurgical Forum, Congress of Neurological Surgeons
4. **Asher A.** The Academic-Community Forum: Collaborative, On-Line Educational Workshops, Congress of Neurological Surgeons
5. **Asher A.** The Select Review in NeuroOncology: AANS/CNS Section on Tumors
6. Selden N., **Asher A.** CNS Consensus Forums, Congress of Neurological Surgeons
7. **Asher A.**, Kalkanis S., Deshmukh, V. Controversies in NeuroOncology Webinar/IML Series 2010 (Sponsored under an educational grant by Eisai Corporation) Congress of Neurological Surgeons