

Positions

West Virginia University

August 2020 – Present

Associate Professor, Department of Neurosurgery

Director of Surgical Neuro-oncology – Eastern Division

Member, Rockefeller Neuroscience Institute

Member, WVU Cancer Institute

The George Washington University

August 2011 – March 2020

Associate Professor, Department of Neurosurgery

Director of Surgical Neuro-oncology and Stereotactic Radiosurgery

Associate Member, GW Institute for Neuroscience

Member, GW Cancer Center

Board Certifications

American Board of Neurological Surgery

Date of Certification – November 13, 2014

Staff Appointments

- Berkeley Medical Center, September 2020 – Present
- Holy Cross Hospital, June 2015 – Present
- Virginia Hospital Center, May 2012 – Present
- George Washington University Hospital, August 2011 – June 2020
- Georgetown University Hospital, January 2017 – April 2020
- Shady Grove Adventist Hospital, November 2011 – December 2016
- Reston Hospital Center, July 2015 – May 2016
- Frederick Memorial Hospital – January 2013 – January 2017
- Suburban Hospital, July 2011 – June 2016
- Washington Adventist Hospital – October 2012 – June 2013
- National Institutes of Health – February 2012 – March 2014
- Anne Arundel Medical Center – May 2017 – July 2017

Hospital Appointments

Shady Grove Adventist Hospital

Neurosurgery Section Chair

December 2012 – June 2015

Certification and Licensure

West Virginia License to practice medicine and surgery
July 2020 – Present

District of Columbia License to practice medicine and surgery
June 2011 – Present

Maryland State License to practice medicine and surgery
June 2011 – Present

Virginia State License to practice medicine and surgery
April 2011 – Present

New York State License to practice medicine and surgery
June 2010 – June 2011

Virginia State License to practice medicine and surgery
June 2003 – June 2010

Education

Memorial Sloan-Kettering Cancer Center
Department of Neurological Surgery
Surgical Neuro-oncology Fellow, June 2010 – June 2011

University of Virginia, University Hospital
Department of Neurological Surgery
Chief Resident, June 2009 – June 2010

Auckland City Hospital, Auckland, New Zealand
Department of Neurological Surgery
Senior Registrar, June 2008 – June 2009

University of Virginia, University Hospital
Departments of Neurological Surgery and Neurology
Surgical Neuro-oncology Fellow, July 2006 – May 2008

University of Virginia, University Hospital
Department of Neurological Surgery
Resident, July 2004 – May 2008

University of Virginia, University Hospital
Department of Surgery
Intern, June 2003 – June 2004

Medical College of Georgia, Augusta, Georgia
Doctor of Medicine, May 2003

Georgia Institute of Technology, Atlanta, Georgia
Bachelor of Chemical Engineering, December 1998
Highest Honor

Work Experience

WVU Medicine Brain & Spine
Neurosurgeon, August 2020 – Present

The GWU Medical Faculty Associates
Neurosurgeon, August 2011 – March 2020

Medical College of Georgia, Department of Special Academic Programs
Tutor of Anatomy, August 2000 – May 2001

MVE, Inc.
Manufacturing Engineer, January 1999 – July 1999
Analyzed the flow characteristics of liquid nitrogen high pressure tanks

DOW Chemical
Process Engineer, Summer 1997
Developed deliverable and sized hydraulic pumps for various capital projects

Grants

National Science Foundation (NSF), IUCRC Phase I GWU: Center for High Pressure Plasma Energy, Agriculture, and Biomedical Technologies (PEAB) Cold plasma technology to enable a future cancer treatment device to reduce surgical margins, 2019 – 2021, Total award \$250,000 (PI-Keidar, Co-PI Sherman)

National Science Foundation (NSF), Industry University Cooperative Research Centers (IUCRC), 2018-2023, Center for High Pressure Plasma Energy, Agriculture, and Biomedical Technologies (PEAB), \$750K (NSF), PI-Keidar, co-PI-Sherman

“Predicting 3D Body Composition Using Optical Surface Scans” CDRF FY20, PI: James Hahn, Co-I: Michele Mietus-Snyder, John Philbeck, Christine Pintz, Jennifer M. Sacke, Xiaoke Zhang, Khashavar Vaziri, Jonathan Sherman, \$49,914, 7/1/20-6/30/21, Year 2

SMHS Center for Faculty Excellence, Virtual Reality to Enhance Gross Anatomy Education in Graduate and Medical Student Programs, 2019-2021, Total award \$9,990 (PI-Sherman, co-PI-Brown)

Plasma Medicine Initiative, US Patent Innovations Inc, 2017-2019, Total award \$5.3M (PI-Keidar, Co-PI-Sherman)

2019 Health Services Scholarship Award

Funding: \$2500

Title: Cold Atmospheric Plasma in the Treatment of Glioblastoma Multiforme

Description: Provided support for 1st year medical student Andrea Klein

2019 Health Services Scholarship Award

Funding: \$2500

Title: Cyberknife Radiosurgery Treatment of Trigeminal Neuralgia: A Single Institution Examination With Long Term Follow-Up

Description: Provided support for 1st year medical student Eric Chalif

2018 Health Services Scholarship Award

Funding: \$2500

Title: Hearing Outcomes after Stereotactic Radiosurgery for the Treatment of Vestibular Schwannoma

Description: Provided support for 1st year medical student Preet Sohal

2017 Health Services Scholarship Award Funding: \$2500 Title: Hearing Outcomes after

Stereotactic Radiosurgery for the Treatment of Vestibular Schwannoma Description:

Provided support for 1st year medical student Vinay Rao

2016 AANS Medical Student Summer Research Fellowship

Funding: \$2500

Title: The Role of FoxJ1 in the Treatment of Glioblastoma

Description: Provided support for 1st year medical student Erin Good

2015-2016 GW Institute for Biomedical Engineering Interdisciplinary Research Fund

Funding: \$20,000

Title: Cold Atmospheric Plasma as a Novel Therapeutic Approach for Glioblastoma

Description:

Examine the therapeutic potential of CAP for cancer treatment in a xenograft murine model of GBM

2015 Health Services Scholarship Award

Funding: \$2500

Title: Use of PET Scans to Determine Treatment of Multiple Spine Metastases with Stereotactic Radiosurgery

Description: Provided support for 1st year medical student Justin Buro

2015 AANS Medical Student Summer Research Fellowship

Funding: \$2500

Title: Retinoic Acid Signaling Reporter in Embryonic Stem (ES) Cells.

Description: Provided support for 1st year medical student Erin McCormack

2014 Health Services Scholarship Award

Funding: \$2500

Title: Volumetric Differentiation of Brain Metastases for Stereotactic Radiosurgery
Description: Provided support for 1st year medical student Il Kyo Kim

2014 Health Services Scholarship Award

Funding: \$2500

Title: Localizing FoxD4 in mouse embryos to implicate FoxD4 in acquisition of neural stem cell identity

Description: Provided support for 1st year medical student Arielle Thal

2013 Katzen Cancer Research Center Innovative Cancer Pilot Research Study Grant

Funding: \$60,000

Title: Cold Atmospheric Plasma in the Treatment of Malignant Glioma

Description: Provides support for 1 year

2013 Health Services Scholarship Award

Funding: \$2500

Title: Effect of FoxD4 Expression on Neuronal Differentiation of Mouse Embryonic Stem Cells

Description: Provided support for 1st year medical student Justin Cappuzzo

2012 AANS Medical Student Summer Research Fellowship

Funding: \$2500

Title: Effects of Combination Phosphodiesterase-5 Inhibitor (Sildenafil) and Brain Naturetic Peptide on Glioma Progression

Description: Provided support for 1st year medical student Siri Sahib Khalsa

2012 Society of Neurological Surgery Resident Research Award

Funding: \$5000

Title: Effects of Combination Phosphodiesterase-5 Inhibitor (Sildenafil) and Brain Naturetic Peptide on Glioma Progression

Description: Provided support for 3rd year resident Alan Siu

Clinical Trial

Sponsored Trials

A Randomized, Multicenter, Phase 2 Study of DSP-7888 in Combination with Bevacizumab versus Bevacizumab Alone in Patients with Recurrent or Progressive Glioblastoma following Initial Therapy
May 2017 – March 2020

A Multicenter Study of 5-Aminolevulinic Acid (5-ALA) to Enhance Visualization of Malignancy in Patients with Newly Diagnosed or Recurrent Malignant Glioma: A Safety,

Histopathology, and Correlative Biomarker Study
April 2018 – January 2019

A Phase 3, Randomized, Controlled, Double-Arm, Open-Label, Multi-center Study of
VB-111 Combined with Bevacizumab vs. Bevacizumab Monotherapy in Patients with
Recurrent Glioblastoma
June 2016 – December 2016

Phase 1/2 Study of SL-701, a Subcutaneously Injected Multivalent Glioma – Associated
Antigen Vaccine, in Adult Patients with Recurrent Glioblastoma
Protocol STML-701-0114
September 2014 – September 2016

Duraseal Exact Spine Sealant System Post-Approval Study
Protocol COV-DRSS-0002
February 2012 – December 2015

Open-label Phase ½ (Safety Lead-in) Study of Trans Sodium Crocetin (TSC) with
Concomitant Treatment of Fractionated Radiation Therapy and Temozolomide in Newly
Diagnosed Glioblastoma Patients to Evaluate Safety and Efficacy
Protocol 100-202
February 2012 – June 2013

Investigator Initiated Trials

Neuro-oncology Tumor Specimen Bank
July 2012 – March 2020

Neuro-oncology Registry
July 2012 – March 2020

Assessment of recurrent metastatic cancer using cold atmospheric plasma
May 2016 – December 2017

Role of FoxJ1 in the treatment of glioblastoma
March 2016 – June 2018

Assessment of Brain Tumor Tissue Oxygenation Levels in Patients with Malignant Glial
Neoplasms.
July 2012 – June 2015

Honors and Awards

- Washingtonian Top Docs 2019
- Washingtonian Top Docs 2018
- Fellow of the American College of Surgeons – July 2017 – Present

- Washingtonian Top Docs 2017
- Washingtonian Top Docs 2016
- Washingtonian Top Docs 2015
- Fellow of the American Association of Neurological Surgery – November 2014
- GW Hospital recognition for patient satisfaction – December 2014
- AANS/CNS Section on Tumors – Executive Committee – October 2013 – Present
- Journal of Neuro-oncology Top Reviewer – 2014
- AOA Honor Medical Society – October 2002
- Reagents Opportunity Scholarship – 2000 – 2001
- Dean's Student Research Fellow – Summer 2000
- Reagents Opportunity Scholarship – 1999 – 2000
- Peacock Family Award for outstanding performance in gross anatomy – 1999
- Tau Beta Pi Engineering Honor Society – 1997 – 1998
- Golden Key Honor Society – 1998
- DOW Chemical Outstanding Junior Award – 1997
- HOPE Scholarship – 1994 – 1998

Medical Student Adviser

- Siri Sahib Khlasa – 2013 – 2015
- Justin Cappuzzo – 2014 – 2016
- Janine Rotsides – 2014 – 2016
- Nick Erickson – 2015 – 2017
- Erin McCormack – 2016 – 2018
- Darshan Vora – 2017 – 2019
- Michael Stellon – 2018 – 2020
- Neil Almeida – 2019 -2021

GWU CAP Program

- Yixue Lily Wang – 2019 – 2020
- Benjamin McSweeney – 2019 – 2020
- Ian John – 2018 – 2019
- Andrea Klein – 2018 – 2019
- Prayerna Uppal – 2018 – 2019
- Kara Skjoldager – 2017 – 2019
- Trevor Hebenstreit – 2017 – 2019
- Vinay Rao – 2016 – 2018
- Gabriel Zuckerberg – 2016 – 2018

Interviews

Washingtonian Magazine

[Why your hospital just hired a video-game developer](#) – September 12, 2017

WTOP Radio

[GW Hospital tool provides unique 3D view inside patient's bodies](#) – May 30, 2017

WUSA*9

[Virtual Reality Helps Brain Surgeons](#) – June 7, 2017

The GW Hatchet

[Virtual reality technology arrives at GW Hospital for neurosurgery](#) – June 12, 2017

CTV News Channel: [Interview on recovery from traumatic brain injury in relationship to Congresswoman Gabrielle Giffords](#) – August 2, 2011

GW: Making History. The Campaign for GW: Interview for philanthropy at The George Washington University – November 18, 2014

NBC 4 Local News: [Interview related to Beau Biden on treatment of brain cancer](#)
June 1, 2015

CBS Radio: Interview related to Beau Biden on treatment of brain cancer
June 1, 2015

Podcasts

The Radiosurgery Society

Combination of Targeted Therapies and SRS for the Treatment of Brain Metastases treated with Radiosurgery

May 19, 2017

“Defining and Treating Recurrent Brain Metastases”

Presenter

Congress of Neurological Surgeons/AANS/CNS Tumor Section

Advances in the Treatment of Metastatic Disease to the Spine

January 11, 2017

Moderator

Congress of Neurological Surgeons: University of Neurosurgery Webinar

Treatment Paradigms for Spinal Metastases – October 2, 2013

Moderator

https://live.blueskybroadcast.com/bsb/client/CL_DEFAULT.asp?Client=474812&PCAT=7098&CAT=7098

Washington Post web chat: “Ask a doctor living with brain injury” in relationship to Congresswoman Gabrielle Giffords – August 2, 2011

<http://live.washingtonpost.com/brain-injuries.html?hpid=z2#latest-question>

National Courses

Congress of Neurological Surgeons 64th Annual Meeting
Boston, MA, October 18-19, 2014
Endoscopic and Keyhole Approaches to the Anterior Skull Base
Invited Faculty

Congress of Neurological Surgeons 63rd Annual Meeting
San Francisco, CA, October 20, 2013
Endoscopic and Keyhole Approaches to the Anterior Skull Base
Invited Faculty

International Invited Lectures

6th International Workshop on Plasma for Cancer Treatment
Mini-course
Antwerp, Belgium, April 1st 2019
“In vivo models/Animal studies”

2nd International Workshop on Plasma for Cancer Treatment
Nagoya, Japan, March 16-17th, 2015
“Cold Atmospheric Plasma in the Treatment of Malignant Glioma”

National Invited Lectures

University of North Carolina. Department of Neurosurgery
Virtual Neurosurgery Grand Rounds
July 8, 2020
“New innovations in the management of metastatic disease to the brain and spine”

University of Oklahoma. Department of Neurosurgery
Virtual Neurosurgery Grand Rounds
May 15, 2020
“New innovations in the management of metastatic disease to the brain and spine”

The University of Texas at Austin, Department of Neurosurgery
Virtual Neurosurgery Grand Rounds
April 7, 2020
“New innovations in the management of metastatic disease to the brain and spine”

Virtual Reality and Healthcare Symposium 2019
University of Arizona, Tuscon, AZ, March 7-8, 2019
“The Development of an Innovations Institute at The George Washington University”

Case-based Discussion Session: Brain Metastases
Congress of Neurological Surgeons 68th Annual Meeting
Houston, TX, October 9, 2018

Virtual Reality and Healthcare Symposium 2018
Harvard Medical School, Boston, MA, March 5-6, 2018
“The Future of Virtual and Augmented Reality at The George Washington University”

Virtual Reality and Healthcare Symposium 2017
The George Washington University, Washington, DC, June 1, 2017
“GWU – Integration of Virtual Reality”

Carilion Clinic Visiting Professor
Institute of Orthopaedics and Neurosciences
Roanoke, V.A., February 26-27, 2018
“The Integration of Stereotactic Ablative Body Radiation Therapy into Existing Treatment Paradigms”

Carilion Clinic Visiting Professor
Institute of Orthopaedics and Neurosciences
Roanoke, V.A., February 26-27, 2018
“The Future of Virtual and Augmented Reality at George Washington University”

AANS/CNS Section on Tumors 11th Biennial Satellite Symposium
Washington, D.C., May 1-2, 2015
“Defining and Treating Recurrent Brain Metastases”

Local Invited Lectures

MAVRIC 2019 Conference
Booz Allen Hamilton DC Innovation Center
September 18th, 2019
“VR and Healthcare – How Do We Build and Grow the Ecosystem in the DMV?”

CRIC for Cancer Immunology Research and GWCC
Consortium Retreat 2019
Elliott School of International Affairs, GWU
Friday, June 21st 2019
“Adult CNS Tumor Program at GWU”

Adventist HealthCare: Physical Medicine and Rehabilitation
Neuroscience and Primary Care Symposium
Adventist HealthCare: Physical Medicine and Rehabilitation
Universities at Shady Grove Conference Center, Rockville, MD
Sunday, January 11th, 2015
“Surgical Treatment Options for Back Pain”

Brain Tumor Support Group
The George Washington University
Thursday, June 5th, 2014
“Clinical Trial Update for Malignant Glioma”

Brain Tumor Support Group
The George Washington University
Thursday November 3, 2011
“Advances in Neuro-oncology”

Lectures

The George Washington University
Neurosurgery Grand Rounds, Wednesday February 27, 2019
“Cold Atmospheric Plasma in the Treatment of Malignant Glioma”

The George Washington University
Neurology Grand Rounds, Wednesday November 2, 2016
“Advances in Surgical Neuro-oncology”

The George Washington University
Internal Medicine Grand Rounds, Thursday September 8, 2016
“Advances in Surgical Neuro-oncology”

The George Washington University
The Department of Physician Assistant Studies
Ross Hall
Friday September 11, 2015
“Nervous System Tumors”

Neurosurgical Oncology Conference
Shady Grove Adventist Hospital – Aquilino Cancer Center
Monday April 7, 2014
“Advances in Surgical Neuro-oncology”

Holy Cross Hospital
Grand Rounds, Monday April 29, 2013
“The integration of spine stereotactic radiosurgery into existing treatment paradigms”

Shady Grove Adventist Hospital Family Practice Departmental Meeting
Tuesday, January 22nd, 2013
“The integration of spine stereotactic radiosurgery into existing treatment paradigms”

Shady Grove Adventist Hospital Family Practice Departmental Meeting
Tuesday, July 24th, 2012
“Advances in Neuro-oncology”

Holy Cross Hospital
Grand Rounds, Tuesday February 28, 2012
“Advances in Neuro-oncology”

Shady Grove Hospital
Internal Medicine Grand Rounds, Monday November 21, 2011
“Advances in Neuro-oncology”

Shady Grove Hospital
Grand Rounds, Thursday November 10, 2011
“Advances in Neuro-oncology”

Suburban Hospital
Grand Rounds, October 28, 2011
“Advances in Neuro-oncology”

The George Washington University
Internal Medicine Grand Rounds, Wednesday October 13, 2011
“Advances in Neuro-oncology”

Hematology-Oncology Tumor Board, Friday September 30, 2011
“Advances in Neuro-oncology”

Suburban Hospital
Aerodigestive Cancer Conference, Wednesday September 14, 2011
“Advances in Neuro-oncology”

Shady Grove Hospital
General Tumor Board, Tuesday September 13, 2011
“Advances in Neuro-oncology”

Publications In Progress

1. Patrick H, **Sherman JH**, Elder N, Olson JJ. Update on the role of cytoreductive surgery in the management of progressive glioblastoma. *In preparation*.
2. Goyal S, Messing I, **Sherman JH**, Thakkar P, Siegel R, Joshi A, Goodman J, Ojong-Ntui M, Rao YJ. Incidence and prognosis of brain metastases in head and neck cancer patients at diagnosis: a population-based study. *In preparation*.
3. **Yao X, Lin L, Soni V, Gjika E, Sherman JH, Yan D, Keidar M**. Sensitization of glioblastoma cells to temozolomide by a helium gas discharge tube. *In preparation*.
4. Yan D, Malyavko A, Wang Q, Lin L, **Sherman JH**, Keidar M. Cold Atmospheric Plasma Cancer Treatments, a Critical Evaluation. *J Applied Physics. Submitted*.
5. Yan D, Malyavko A, Wang Q, Adhikari M, **Sherman JH**, Keidar M. Cell death triggered by cold atmospheric plasma. *J Applied Physics. Submitted*.

6. Yan D, Wang Q, Klein A, Patel K, **Sherman JH**, Keidar M. Cold atmospheric plasma cancer treatment, direct vs. indirect approaches. *Materials Advances*. *Submitted*.
7. Yan D, Wang Q, Adhikari M, Zolotukhin DB, Yao X, Lin L, Kirschner M, **Sherman JH**, Keidar M. **Cold Atmospheric Plasma Action on Melanoma Cells: A New Form of Cell Death. PNAS.**
8. Almeida ND, Klein AL, Lee D, Usman A, Almeida NC, Klein AL, Hogan E, Sack K, **Sherman JH**. Coagulation Profile as a Significant Risk Factor for Short-Term Complications and Mortality following Anterior Cervical Discectomy and Fusion. *World Neurosurg*.
9. Chen Z, Li Z, Zheng Q, Lin L, Trink B, **Sherman JH**, Canady J, Keidar M. Cold atmospheric plasma with self-organized patterns affecting breast cancer through DNA damage. *Submitted*.
10. Bander ED, **Sherman JH**, Bettgowda C, Aghi M, Sheehan J, Ramakrishna R. Beyond guidelines: analysis of current practice patterns of AANS.CNS tumor neurosurgeons. *J Neurooncol*. *Submitted*.
11. Gjika E, Pal-Ghosh S, Kirschner M, Lin L, **Sherman JH**, Stepp MA, Keidar M. Combination Therapy of Cold Atmospheric Plasma (CAP) with Temozolomide for the Treatment of Glioblastoma. *Submitted*.
12. Stellan M, **Sherman JH**, Rosner M. Multifocal thoracic intradural extramedullary anaplastic ependymoma with intracranial involvement at presentation. *J Neurosurg Spine*. *Submitted*

Publications

1. Foster CH, Dave P, **Sherman JH**. Chemotherapy for the management of cerebral metastases. *Neurosurg Clin N Am*. *In Press*.
2. Yan D, Wang Q, Malyavko A, Zolotukhin DB, Adhikari M, **Sherman JH**, Keidar M. The Anti-glioblastoma Effect of Cold Atmospheric Plasma Treatment: Physical Pathway vs Chemical Pathway. *Scientific Reports*. 2020 Jul 16;10(1):11788.
3. [Yan D](#), [Wang Q](#), [Adhikari M](#), [Malyavko A](#), [Lin L](#), [Zolotukhin DB](#), [Yao X](#), [Kirschner M](#), [Sherman JH](#), [Keidar M](#) A New Physically Triggered Cell Death via Transbarrier Contactless Cold Atmospheric Plasma Treatment of Cancer Cells. *ACS Appl Mater Interfaces*. 2020 July 10.
4. Hogan E, Vora D, **Sherman JH**. A minimally invasive surgical approach for the treatment of piriformis syndrome. *Chinese Neurosurgical Journal*. 2020; **6**:8.
5. Adhikari M, Adhikari B, Adhikari A, Yan D, Soni V, Sherman J, Keidar M. Cold atmospheric plasma as a novel therapeutic tool for the treatment of brain cancer. *Curr Pharm Des*. 2020; 26(19): 2195-2206.
6. Xu W, Yan D, Sun J, Chen J, Yao X, **Sherman JH**, Keidar M. **The Activation of Cancer Cells by a Nanosecond-pulsed Magnetic Field Generator.** *Physics D: Applied Letters*. 2020 March; 53 (12).
7. Klein AL, **Sherman JH**. [In Reply to Letter to the Editor Regarding "Perioperative Complications Associated with Severity of Anemia in Geriatric Patients Undergoing Spinal Procedures"](#). *World Neurosurg*. 2020 Apr;136:425.

8. Almeida ND, Lee R, Bestourous D, Parekh NR, Davis G, Hogan E, Adams C, Sack K, **Sherman JH**. Perioperative complications associated with severity of anemia in geriatric patients undergoing spinal procedures. *World Neurosurg*. 2020 Mar;135:e307-e320.
9. Chitti B, Goyal S, **Sherman JH**, Caputy A, Sarfaraz M, Cifter G, Aghdam A, Rao, YJ. The role of brachytherapy in the management of brain metastases: a systematic review. *J Contemp Brachytherapy*. 2020 Feb;12(1):67-83.
10. Yao X, Goldstein I, Lin L, **Sherman JH**, Keidar M. Comparative Study of the Cancer Treatment Potential Effect of Tumor-Treating Fields and Cold Plasma Treatment. *Plasma Medicine*, 9(3): pp. 235 – 249, 2019.
11. Klein A, **Sherman JH**. In reply: Perioperative Complications Associated with Severity of Anemia in Geriatric Patients Undergoing Spinal Procedures. *World Neurosurg*. 2019 Dec 10. pii: S1878-8750(19)33009-8.
12. Lin L, Yan D, Gjika E, **Sherman JH**, Keidar M. Plasma meets atmospheric plasma: atmospheric plasma tailoring by living cells. *ACS Appl Mater Interfaces*. 2019 Aug 28;11(34):30621-30630.
13. Yan D, Lin L, Xu W, Nourmohammadi N, **Sherman JH**, Keidar M. Cold Plasma-Based Control of the Activation of Pancreatic Adenocarcinoma Cells. *Journal of Physics D: Applied Physics*. 52(44). (2019).
14. Lee R, Almeida ND, Klein AL, Terhaar SJ, Kedda N, Uppal P, Sack K, Hogan E, Keidar M, **Sherman JH**. Cold Atmospheric Plasma as an adjunct to Immunotherapy for Glioblastoma Multiforme. *World Neurosurg*. 2019 Jul 5. pii: S1878-8750(19)31866-2.
15. Elder JB, **Sherman JH**, Prevedello DM, Szerlip NJ, Spratt DE, Shaikhouni A, Mohyeldin A, Perez-Roman RJ, Buttrick SS, Ali SC, Komotar RJ, Todeschini A, Shahein M, Revuelta JM, Hardesty D, Carrau RL, Zada G, Giannotta S, Dornbos D, Lonser RR. Tumor. *Oper Neurosurg (Hagerstown)*. 2019 Aug 1;17(Supplement_2):S119-S152
16. **Sherman JH**, Lo SS, Harrod T, Hdeib A, Li Y, Ryken TC, Olson JJ. Congress of Neurological Surgeons systematic review and evidence-based guideline on the role of chemotherapy in the management of patients with newly diagnosed brain metastases. *Neurosurgery*. 2019 Jan 9. doi: 10.1093/neuros/nyy544.
17. Ryken TC, Kuo JS, **Sherman JH**, Kalkanis SN, Olson JJ. Congress of Neurological Surgeons systematic review and evidence-based guideline on the role of steroids in metastatic brain tumors. *Neurosurgery*. 2019 Jan 9. doi: 10.1093/neuros/nyy546.
18. D Peereboom, LB Nabors, P Kumthekar, M Badruddoja, K Fink, F Lieberman, S Phuphanich, E Dunbar, T Walbert, D Schiff, DD Tran, LS Ashby, N Butowski, F Iwamoto, R Lindsay, J Bullington, M Schulder, **J Sherman**, C Brooks, D Reardon. Results of phase II trial of SL-701, a novel immunotherapy targeting IL-13Ra2, EphA2, and survivin, in adults with second-line recurrent glioblastoma (GBM). *Annals of Oncology*, Volume 29, Issue suppl_8, October 2018, mdy273.361.
19. McCormack E, Cappuzzo JM, Litvack Z, Easley S, **Sherman JH**. Suprasellar epidermoid cyst originating from the infundibulum: case report and literature review. 2018 Aug 29;10(8):e3226.

20. Yan D, Xu W, Yao X, Lin L, **Sherman JH**, Keidar M. The Cell Activation Phenomena in the Cold Atmospheric Plasma Cancer Treatment. *Sci Rep*. 2018 Oct 18;8(1):15418.
21. Yan, D., Lin, L., **Sherman, JH**, Canady, J., Trink, B. and Keidar, M., 2018. The Correlation Between the Cytotoxicity of Cold Atmospheric Plasma and the Extracellular H₂O₂-Scavenging Rate. *IEEE Transactions on Radiation and Plasma Medical Sciences*, 2(6), pp.618-623.
22. McCormack E, Alam M, Erickson N, Cherrick A, Powell E, **Sherman JH**. Use of MRI in diabetic lumbosacral radiculoplexus neuropathy: case report and review of the literature. *Acta Neurochir (Wien)*. 2018 Nov;160(11):2225-2227.
23. Erickson NJ, Gragnaniello C, Siu A, Litvack Z, **Sherman JH**. Endoscopic endonasal transclival approach to a pontine cavernous malformation: case report and review of the literature. *World Neurosurg*. 2018 Jul 18. pii: S1878-8750(18)31562-6
24. Yan D, Nourmohammadi N, Milberg J, **Sherman JH**, Keidar M. Guidelines for using 3-nitro-L-tyrosine as an anti-degradation reagent of H₂O₂ in the cold atmospheric plasma-stimulated solutions. *Plasma Medicine*. 8(2):121-129 (2018).
25. Almeida N, Adams C, Davis G, Starke B, Buro J, Nasr NM, McRae DA, Cernica GD, Caputy A, Hong RL, **Sherman JH**. Effectiveness of PET-CT as a guide for palliative stereotactic ablative radiation therapy for spinal metastases. *World Neurosurg*. 2018 Mar 31. pii: S1878-8750(18)30653-3.
26. Gjika E, Pal-Ghosh S, Lin L, Tadvalkar T, Chen Z, Young C, Canady J, Young C, **Sherman J**, Stepp MS, Keidar M. Adaptation of operational parameters of cold atmospheric plasma and their role in cancer therapy. *Clinical Plasma Medicine*. [Volume 9, Supplement](#), February 2018: 16-17.
27. Cappuzzo JM, Knudson KE, Sarin S, Babrowicz J, Cherrick A, **Sherman JH**. Delayed traumatic aortic pseudoaneurysm formation causing vertebral body erosion and back pain: case report and literature review. *World Neurosurg*. 2018 Feb;110:232-239.
28. Slentz DH, Bellur S, Taheri R, Almira-Suarez MI, **Sherman JH**, Mansour T. Primary extradural orbital meningioma: case report and review of the literature: 2018 Feb 27:1-6.
29. Yan D, **Sherman JH**, Keidar M. The application of cold atmospheric plasma-activated solutions in cancer treatment. *Anticancer Agents Med Chem*. 2017 Jul 31. doi: 10.2174/1871520617666170731115233.
30. Keidar M, Yan D, Beilis II, Trink B, **Sherman JH**. Plasmas for treating cancer: Opportunities for adaptive and self-adaptive approaches. *Trends in Biotechnology*. 2017 Jul 26. pii: S0167-7799(17)30162-2.
31. Yan D, Cui H, Zhu W, Nourmohammadi N, Milberg J, Zhang LG, **Sherman JH**, Keidar M. [The specific vulnerabilities of cancer cells to the cold atmospheric plasma-stimulated solutions](#). *Sci Rep*. 2017 Jun 30;7(1):4479.
32. Yan, D., Cui, H., Zhu, W., Talbot, A., Zhang, L.G., Sherman, J.H. and Keidar, M., 2017. The strong cell-based hydrogen peroxide generation triggered by cold atmospheric plasma. *Sci Rep*. 7(1), p.10831.

33. Chen Z, Simonyan H, Cheng X, Gjika E, Lin L, Canady J, **Sherman JH**, Colin Y, Keidar M. Novel micro-cold atmospheric plasma device for glioblastoma both in vitro and in vivo. *Cancers (Basel)*. 2017 May 30;9(6). pii: E61.
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Acknowledgements

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2. Adams C, **Sherman JH**. *Editorial comment on:*Quantitative analysis of near-infrared indocyanine green videoangiography for predicting functional outcomes after spinal intramedullary ependymoma resection. *Oper Neurosurg*.
3. Almeada N, **Sherman JH**. *Editorial comment on:* Surgical resection improves quality of life in diffuse low-grade glioma patients: a prospective cohort study.
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5. Stellon M, **Sherman JH**. *Editorial comment on:* Laser interstitial thermal therapy as a primary treatment for deep inaccessible gliomas.
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1. Keidar M, Yan D, Sherman JH. Cold Plasma Cancer Therapy. IOP Concise Physics.

Book Chapters

1. Almeida N, Sack K, **Sherman JH**. A dynamic frontier: clinical applications of plasma energy. In: Plasma Cancer Therapy. Ed. Keidar M. Springer Publishing Co., 2021.
2. Keidar M, **Sherman JH**. Summary and Outlook. In: Plasma Cancer Therapy. . Ed. Keidar M. Springer Publishing Co., 2021.
3. Fleisher M, Patrick H, **Sherman JH**. The role of convection enhanced in the treatment of GBM. In: Reversal of Resistance of Glioblastoma to Chemotherapy. *In Press*.
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Academic Editor

PLOS-One
Journal of IVRHA

Consulting Editor

Surgical Neurology International

Reviewer

- *Annals of Neurology*
- *African Health Sciences*
- *BioMed Research International*
- *Cancer Chemotherapy and Pharmacology*
- *Cancer Management and Research*
- *Cerebral Cortex*
- *Cureus*
- *European Journal of Neurology*
- *International Journal of Molecular Sciences*
- *Neurosurgical Focus*
- *Neurosurgical Review*
- *Neurosurgery*
- *Operative Neurosurgery*
- *Plasma*
- *Lancet Oncology*
- *Journal of Experimental & Clinical Cancer Research*
- *Journal of Neuro-Immunology*
- *Journal of Neuro-Oncology*
- *Journal of Neurosurgery*
- *Journal of Neurology, Neurological Science, and Disorders*
- *Journal of Neurology, Neurosurgery, and Psychiatry*
- *Trends in Biochemical Sciences*

- *World Neurosurgery*
- *Yonsei Medical Journal*

Affiliations

- American Medical Association – 1999 – Present
- American Association of Neurological Surgeons – 2003 – Present
- Congress of Neurological Surgeons – 2003 – Present
- American College of Surgeons – 2004 – Present
- Neurosurgical Society of the Virginias – 2004 – Present
- Society of Neuro-Oncology – 2006 – Present
- AANS/CNS Section on Tumors – 2006 – Present
- Radiosurgery Society – 2017 – Present
- Medical Society of the District of Columbia – 2014 – Present
- Metropolitan Washington DC Chapter of ACS – 2017 – Present
- Society for Neuroscience – 2013 – 2016
- AANS/CNS Section on Neurotrauma & Critical Care – 2006 – 2012
- North American Skull Base Society – 2008 – 2012

International Committees

The International Virtual Reality and Healthcare Association Advisory Board- January 2019 – Present

International Scientific Committee for the Annual International Workshop on Plasma for Cancer Treatment – January 2014 – Present 1st International Workshop – 2014 Local Organizing Committee 3rd International Workshop on Plasma for

Cancer Treatment, Washington, DC, April 11-12th, 2016, Organizing Committee, Co-Chair

National Committees

DME Medicare Administrative Contractors
Contractor Advisory Committee

Centers for Medicare & Medicaid Services (CMS) discussion of the scientific evidence related to Tumor Treatment Fields (TTFT) for newly diagnosed GBM

VR & Healthcare Symposium 2020
Chair Track 1

VR & Healthcare Symposium 2019
Session Chair – Training

* CNS

Nexus Editorial Board: Fall 2018 – Present
Nexus Committee: February 2018 – Present
Joint Guidelines Committee: September 2017 – Present
Reviewer – Newly Diagnosed GBM Guideline Update – Spring 2020
Oral Boards Course: October 2017 – Present
Congress of Neurological Surgeons 70th Annual Meeting – 2021
Scientific Program Committee, Member Services-Southeast Membership Director
Congress of Neurological Surgeons 69th Annual Meeting – 2020
Tumor Section Abstract Reviewer
Congress of Neurological Surgeons 64th Annual Meeting – 2015
Abstract Reviewer
SANS Lifelong Learning Committee – 2007 – Present
SANS Neurosurgery – 2012 – Present
CNS Education Committee – 2008 – Present
Video Atlas Project – 2010 – 2013
Editor Neurosurgery Watch – 2013 – Present
CNS Scientific Program Committee – 2012
Director of Sergeant at Arms – 2012
Practical Course Sub-committee – 2013
Fellowships Committee – November 2014 – September 2015
CNS University: Case Based Learning Editorial Board – October 2013 – 2017

*AANS

AANS History Section – April 2018 – Present
Secretary/Treasurer
AANS/CNS Section on Tumors – Executive Committee – October 2013 – Present
AANS/CNS Section on Tumors – Surveys to Members Committee – September 2018 – Present
American Association of Neurological Surgeons 88th Annual Meeting
Scientific Program Committee – Abstract Reviewer
American Association of Neurological Surgeons 87th Annual Meeting
Scientific Program Committee – Abstract Reviewer
American Association of Neurological Surgeons 85th Annual Meeting
Scientific Program Committee – Abstract Reviewer
AANS/CNS Section on Tumors Program Advisory Committee – September 2016 – 2018
American Association of Neurological Surgeons 84th Annual Meeting
Scientific Program Committee – Abstract Reviewer
American Association of Neurological Surgeons 82nd Annual Meeting
Scientific Program Committee – Abstract Reviewer
AANS/CNS Section on Tumors 11th Biennial Satellite Symposium – Local Arrangements Chair
AANS/CNS Section on Tumors 11th Biennial Satellite Symposium – Abstract Reviewer
American Association of Neurological Surgeons 81st Annual Meeting
Scientific Program Committee – Abstract Reviewer

10th Biennial Satellite Tumor Symposium – 2013
Scientific Advisory Committee

*SNO

Mentorship Program: Fall 2019 – Present
Mentor to Dr. Florina Grigore

Local Committees

The Neurosurgical Society of the Virginias
President – January 2020 – Present
Secretary – March 2016 – January 2020

CTSI-CN Discovery Pilot Research Awards
Grant Reviewer – Spring 2018

PhD Dissertation Defense Committee
Xiaoqian Cheng – July 2016

PhD Dissertation Defense Committee
Zhitong Chen – December 2017

PhD Dissertation Defense Committee
Eda Gjika – July 2019
Thermal and Non-thermal Plasma in Cancer Treatment

Masters Thesis Committee
Qihui Wang – December 2019
The Selective Anti-Cancer Effect of Cold Atmospheric Plasmas: Chemical vs Physical Therapy

The George Washington University
Department of Neurosurgery – January 2014 – Present
*Program Evaluation Committee

The George Washington University
School of Medicine
* GW Cancer Center Search Committee – March 2014 – June 2015

Recruitment for Director of Cancer Center
*Integration Committee – Spring 2013 – Summer 2014
Helped develop the new neuroscience curriculum for 1st and 2nd year students

* AANS Medical Student George Washington University Chapter – Fall 2019 – Present
Chapter Sponsor

*Neurosurgery Medical Student Interest Group – Fall 2011 – Present
Attending liaison

International Meetings

6th International Workshop on Plasma for Cancer Treatment

Antwerp, Belgium, April 2nd – 3rd, 2019

Oral Presentation

Yan D, Sherman JH, Keidar M

The cell activation phenomena in CAP cancer treatment

6th International Workshop on Plasma for Cancer Treatment

Antwerp, Belgium, April 2nd – 3rd, 2019

Poster Presentation

Keidar M, Gjika E, Lin L, Yan D, Corbella C, Soni V, Sherman JH

Adaptive cold atmospheric plasma for cancer treatment

European Society of Medical Oncology

Munich, Germany, October 19-23, 2018

Poster Presentation

Results of Phase 2 Trial of SL-701, a novel immunotherapy targeting IL-13Ra2, EphA2, and survivin, in adults with second-line recurrent glioblastoma (GBM)

7th International Conference on Plasma Medicine

Philadelphia, PA, June 17-22, 2018

Poster Presentation

Gjika E, Pal-Ghosh S, Lin L, Sherman JH, Canady J, Young C, Stepp MS, Keidar M

Adaptation of cold atmospheric plasma discharge voltage and its role in cancer therapy

5th International Workshop on Plasma for Cancer Treatment

Greifswald, Germany, March 27-28, 2018

Oral Presentation

Gjika E, Sherman JH, Keidar M

Adaptation of operational parameters of cold atmospheric plasma and their role in cancer therapy

5th International Workshop on Plasma for Cancer Treatment

Greifswald, Germany, March 27-28, 2018

Oral Presentation

Canady J, Sherman JH, Keidar M

GWU-USMI plasma medicine research program

4th International Workshop on Plasma for Cancer Treatment

Paris, France, March 27-28, 2017

Poster Presentation

Yan D, Sherman JH, Keidar M

The strong H₂O₂ production by cancer cells during the direct cold atmospheric plasma treatment

3rd International Workshop on Plasma for Cancer Treatment

Washington, DC, April 11-12, 2016

Oral Presentation

Yan D, Nourmohammadi N, Bian K, Murad F, Sherman JH, Keidar M.

Making strong and stable plasma stimulated media (PSM) by multi-approaches

3rd International Workshop on Plasma for Cancer Treatment

Washington, DC, April 11-12, 2016

Poster Presentation

Cheng X, Rajjoub K, Shashurin A, Yan D, Sherman JH, Keidar M.

Enhancing the efficacy of cancer therapy by cold atmospheric plasma

BioEM 2016

Ghent, Belgium, Jun 05 – 10, 2016

Oral Presentation

Cheng X, Rajjoub K, Shashurin A, Yan D, Sherman J, Bian K, Murad F, Keidar M

Enhancing cold atmospheric plasma treatment of cancer cells by static magnetic field

1st International Workshop on Plasma for Cancer Treatment

Washington, DC, March 24-25, 2014

Oral Presentation

Cheng X, Sherman J, Murphy W, Ratovitski E, Canady J, Keidar M

The effect of different cold plasma composition on glioblastoma cell variability

1st International Workshop on Plasma for Cancer Treatment

Washington, DC, March 24-25, 2014

Poster Presentation

Cheng X, Murphy W, Recek N, Yan D, Cvelbar U, Keidar M, Sherman JH

Synergistic effect of gold nanoparticles and cold plasma on glioblastoma cancer therapy

1st International Workshop on Plasma for Cancer Treatment

Washington, DC, March 24-25, 2014

Poster Presentation

Yan D, Cheng X, Keidar M, Sherman JH

The role of fetal bovine serum in killing glioblastoma cells using cold atmospheric plasma

National Meetings

Brown Alpert Medical School

The 2nd Annual Student Neurosurgery & Neurology Research Conference

Providence, RI, January 11, 2020

Oral Presentation

Klein A, Gjika E, Yan D, Sherman JH, Keidar M.
Cold Atmospheric Induced Cell Activation and Sensitization in the Treatment of Glioblastoma

Brown Alpert Medical School
The 2nd Annual Student Neurosurgery & Neurology Research Conference
Providence, RI, January 11, 2020

Oral Presentation

Chalif E, McRae D, Nar N, Hong R, Sherman JH
Cyberknife Radiosurgery Treatment of Trigeminal Neuralgia: A Single Institution Experience with Long-term Follow-up

American Society of Neuroradiology (ASNR) 2019 Annual Meeting
Boston, MA, May 18-23, 2019

Oral Presentation

Javan R, Herur-Raman A, Goyal A, Sherman JH
Fly-Through Virtual Reality-Assisted Training of the Pterygopalatine Fossa Anatomy

119th American Roentgen Ray Society (ARRS) Annual Meeting
Honolulu, HI, May 5-10, 2019

Oral Presentation

Javan R, Gibby J, Farhadi F, Sherman J, Sarani B, Zeman RK
3D Center of Excellence” in the Modern Era of Personalized Medicine: Role of the Radiologist

Society of Neuro-Oncology 18th Annual Meeting
New Orleans, LA, November 15-18, 2018

Oral Presentation

Perreboom D, Nabors LB, Kumthekar P, Badruddoja M, Fink K, Leiberman F, Phuphanich S, Dunbar E, Walbert T, Schiff D, Tran D, Ashby L, Butowski N, Iwamoto F, Lindsay R, Bullington J, Scholder M, Sherman JH, Brooks C, Reardon DA.
Phase 2 Trial of SL-701 + Bevacizumab in Patients with Previously Treated Glioblastoma (GBM) Meets Primary Endpoint of OS-12, with Preliminary Correlation Between Long-Term Survival and Target-Specific CD8+ T cell Immune Response.

Congress of Neurological Surgeons 68th Annual Meeting
Houston, TX, October 6-10, 2018

Poster Presentation

Sun MZ, Peeters SM, Feinberg M, Sherman J, Wang AC
Impact of 3-D Virtual Reality Visualization on Patient Education, Engagement, and Satisfaction in Pre-Surgical Consultation

Society of Neuro-Oncology 17th Annual Meeting
San Francisco, CA, November 16-19, 2017

Poster Presentation

Adams C, Almeida N, Davis G, Starke B, Buro J, Nasr NM, McRae DA, Cernica GD,

Caputy A, Hong
RL, Sherman JH.

Effectiveness of PET-CT as a guide for palliative stereotactic ablative radiation therapy for spinal metastases.

Congress of Neurological Surgeons 67th Annual Meeting
Boston, MA, October 7-11, 2017

Poster Presentation

Kim IK, Starke R, McRae D, Nasr N, Caputy A, Cernica G, Hong R, Sherman JH
Volumetric Analysis of CyberKnife Treatment for Brain Metastases

The 44th International Conference on Plasma Science
Atlantic City, NJ, May 21-25, 2017

Oral Presentation

Chen Z, Zhang S, Levchenko I, Beilis I, Sherman JH, Keidar M
Cancer inhibiting properties from self-organized plasma-liquid interface: in vitro demonstration

23rd International Symposium on Plasma Chemistry
Montreal, Canada, July 30th – August 4th, 2017

Oral Presentation

Chen Z, Zhang S, Levchenko I, Beilis I, Sherman JH, Keidar M
Anti-cancer media from self-patterned plasma-liquid interaction: formation, composition and in vitro testing

Society for Neuroscience 2016 Annual Meeting
San Diego, CA, November 12-16, 2016

Poster Presentation

Paronett L, McCormack E, Good E, Johng B, Maynard T, Lamantia A, Lee N, Sherman JH
Examination of FoxJ1 as a modulator of proliferation in glioblastoma

Society of Neuro-Oncology 21st Annual Meeting
Scottsdale, AZ, November 17-20, 2016

Oral Presentation

Reardon RA, Peereboom D, Nabors LB, Fink K, Phuphanich S, Mikkelsen T, Dunbar E, Badruddoja M, Schiff D, Lieberman F, Tran D, Schulder M, Butowski N, Ashby L, Moertel C, Iwamoto F, Sherman JH, Chen J, McDonald P, Poradosu E, Brooks C, Shemesh S, Raizer J.
Phase 2 Trial of SL-701, a novel immunotherapy comprised of synthetic short peptides against GBM targets IL-13R α 2, EphA2, and Survivin, in adults with second-line recurrent GBM: Interim results

Congress of Neurological Surgeons 66th Annual Meeting
San Diego, CA, September 24-28, 2016

Poster Presentation

Davis G, Buro J, Nasr N, McRae D, Cernica G, Caputy A, Hong R, Sherman JH
Effectiveness of PET-CT as a guide for palliative radiation therapy for spinal metastases

Biomedical Engineering Society 2016
Minneapolis, Minnesota, October 5-8, 2-16
Presentation

Yan D, Nourmohammadi N, Bian K, Murad F, Sherman JH, Keidar M
Making strong and stable plasma-stimulated medium (PSM) by multi-approaches

22nd International Symposium on Plasma Chemistry
University of Antwerp, City Campus, Antwerp, Belgium, July 5-10, 2015
Oral Presentation
Cheng X, Rajjoub K, Sherman J, Canady J, Recek N, Keidar M
Cold Plasma Accelerates the Uptake of Gold Nanoparticles into Glioblastoma Cells

2015 American Society of Clinical Oncology Annual Meeting
Chicago, IL, May 29-June 2, 2015
Poster Presentation
Gainer JL, Sheehan J, Larner JM, Sherman JH, Jones DR
Use of a Novel Radio-sensitizer for Treatment of GBM

American Association of Neurological Surgeons 82nd Annual Meeting
Washington, D.C., May 2-6, 2015
Poster Presentation
Cappuzzo JM, Knudson KE, Sherman JH
Delayed Traumatic Aortic Pseudoaneurysm Formation in a Patient Presenting with Vertebral Body Erosion and Isolated Axial Back Pain: Case Report and Literature Review

AANS/CNS Section on Tumors 11th Biennial Satellite Symposium
Washington, D.C., May 1-2, 2015
Poster Presentation
Kim IK, Starke R, McRae D, Nasr N, Caputy A, Cernica G, Hong R, Sherman JH
Volumetric Analysis of CyberKnife Treatment for Brain Metastases

AANS/CNS Section on Tumors 11th Biennial Satellite Symposium
Washington, D.C., May 1-2, 2015
Poster Presentation
Cappuzzo JM, DeRosa P, Sherman JH
Isolated recurrence of secondary CNS lymphoma: case report and literature review

Society for Neuroscience 2014 Annual Meeting
Washington, DC, November 15-19, 2014
Poster Presentation
Sherman JH, Fralish M, Karpinski-Oakley B, Maynard TM, Moody SA, LaMantia AS

Analyzing the role of FoxD4 in neuronal differentiation using a mouse embryonic stem cell model

Congress of Neurological Surgeons 64th Annual Meeting

Boston, MA, October 18-22, 2014

Neurosurgical Forum

Siu A, Volotskova O, Cheng X, Keidar M, Sherman JH

Differential effects of cold atmospheric plasma in the treatment of malignant glioma

Society for Neuroscience 2013 Annual Meeting

San Diego, CA, November 9-13, 2013

Poster Presentation

Sherman JH, Fralish M, Karpinski-Oakley B, Maynard TM, Moody SA, LaMantia AS

Analyzing the role of FoxD4 in neuronal differentiation using a mouse embryonic stem cell model

Society of Neuro-Oncology 17th Annual Meeting

Washington, DC, November 15-18, 2012

Poster Presentation

Sherman JH, Siu A, Volotskova O, Keidar M

Cold atmospheric plasma in the treatment of malignant glioma

Society of Neuro-Oncology 17th Annual Meeting

Washington, DC, November 15-18, 2012

Poster Presentation

Iorgulescu JB, Laufer I, Hameed M, Rosenblum M, Lis E, Boland P, Sherman J, Komotar R, Bilsky M.

Benign notochordal lesions of the spinal column: clinical, histopathologic, and radiographic findings in 15 patients

Society of Neuro-Oncology 15th Annual Meeting

Montreal, Canada, November 18 – 21, 2010

Poster Presentation

Sherman JH, Moldovan K, Yoeh HK, Starke RM, Pouratian N, Shaffrey ME, Schiff D

Impact of temozolomide chemotherapy on seizure frequency in patients with low-grade gliomas

Congress of Neurological Surgeons 60th Annual Meeting

San Francisco, CA, October 16 – 21, 2010

Select Abstract

Weintraub D, Sherman JH, Jane JA Jr

Posterior fossa decompression with dural splitting versus duroplasty for the treatment of Chiari I malformations in pediatric patients

Congress of Neurological Surgeons 60th Annual Meeting

San Francisco, CA, October 16 – 21, 2010

Poster Presentation

Jahangiri F, Sherman JH, Sheehan JP, Shaffrey ME, Dumont A, Vengrow M, Vega-Bermudez F

Limiting the current density during localization of the primary motor cortex by using a tangential-radial cortical SSEP model, DECS, and electrocorticography

Congress of Neurological Surgeons 60th Annual Meeting

San Francisco, CA, October 16 – 21, 2010

Top Ten Abstracts – Oral Presentation – Integra Foundation Award

Williams BJ, Yen CP, Starke R, Bhuvaneshwara B, Nguyen B, Rainey J, Sherman JH, Schlesinger D, Sheehan JP

Gamma knife radiosurgery for parasellar meningiomas: long term results including complications, predictive factors and progression free survival

American Society of Electroneurodiagnostic Technologies 51st Annual Meeting

Louisville, KY, August 4 – 7, 2010

Poster Presentation

Jahangiri F, Sherman J, Louis R, Elias J, Vega-Bermudez F

Protecting the genitofemoral nerve during Direct Lateral Interbody Fusion (DLIF/XLIF) procedures

American Society of Neurophysiological Monitoring 11th Annual Meeting

Nashville, TN, April 23 – 25, 2010

Research/Scientific Paper Presentation

Jahangiri F, Sherman J, Louis R, Elias J, Vega-Bermudez F

Protecting the genitofemoral nerve during Direct Lateral Interbody Fusion (DLIF/XLIF) procedures

Joint Meeting of the Society for Neuro-Oncology and the AANS/CNS Section on Tumors

New Orleans, LA, October 22 – 24, 2009

Poster Presentation

Sherman JH, Cifarelli C, Dassoulas K, Olson C, Rainey J, Han S, Sheehan JP

Trans-sodium crocetin increases brain tumor oxygenation

American Association of Neurological Surgeons 76th Annual Meeting

San Diego, CA, May 2 – 6, 2009

Oral Presentation

Jagannathan J, Sherman JH, Szabo T, Shaffrey CI, Jane JA Sr

Long-term clinical and radiographic outcomes following single-level posterior cervical foraminotomy: A single-center study with minimum 5-years follow-up

American Association of Neurological Surgeons 76th Annual Meeting

San Diego, CA, May 2 – 6, 2009

Poster Presentation

Louis RG, Sherman JH, Saulle D, Pouratian N, Elias WJ.

Imaging characteristics of oligodendrogliomas in tumor related epilepsy

European Association of Neurooncology 8th Annual Meeting
Palau de Congressos de Catalunya, Barcelona, Spain, September 12-14, 2008
Oral Presentation
Sherman JH, Aregawi DG, Lai A, Rosenfeld SS, Fathallah-Shaykh HM, Larner JA, Newman SA, Schiff D
Optic neuropathy in patients with malignant gliomas treated with bevacizumab

American Association of Neurological Surgeons 76th Annual Meeting
Chicago, IL, April 26 – May 1, 2008
Poster Presentation
Sherman JH, Yoeh HK, Prevedello DM, Aregawi DG, Shaffrey ME, Schiff D
Impact of temozolomide chemotherapy on seizure frequency in patients with low-grade gliomas

Southern Neurosurgical Society 2008 Annual Meeting
Las Croabas, PR, February 6-9, 2008
Oral Presentation
Sherman JH, Amos S, Martin P, Shaffrey ME, Hussaini IM
Raf inhibitor as a radiosensitizer in malignant astrocytoma

Society of Neuro-Oncology 12th Annual Meeting
Dallas, TX, November 15-18, 2007
Poster Presentation
Sherman JH, Prevedello DM, Pouratian N, Shah L, Raghavan P, Shaffrey ME, Schiff D
MR imaging characteristics of oligodendroglial tumors with 1p/19q co-deletion

Congress of Neurological Surgeons 57th Annual Meeting
San Diego, California, September 15-19, 2007
Select Abstract
Sherman JH, Amos S, Martin P, Shaffrey ME, Hussaini IM
Raf inhibitor as a radiosensitizer in malignant astrocytoma

American Association of Neurological Surgeons 75th Annual Meeting
Washington, D.C., April 14-19, 2006
Oral Presentation
Sherman JH, Prevedello DM, Jane JA Jr, Laws ER
Pediatric craniopharyngiomas: the role of transsphenoidal surgery in their initial management

AANS/CNS Section on Tumors 2007 Annual Meeting
Washington, D.C, April 13-14, 2007
Poster Presentation
Sherman JH, Prevedello DM, Jane JA Jr, Vance ML, Laws ER
Cushing's disease: The effect of inferior petrosal sinus sampling on outcome in transsphenoidal surgery

Society of Neuro-Oncology 11th Annual Meeting

Orlando, FL, November 16-19, 2006

Poster Presentation

Pouratian N, Gasco J, Sherman JH, Shaffrey ME, Schiff D

Toxicity and efficacy of protracted low dose temozolomide for the treatment of low grade gliomas

Congress of Neurological Surgeons 56th Annual Meeting

Chicago, IL, October 7-12, 2006

Poster Presentation

Sherman JH, Laws ER

TSH/GH pituitary tumors: an evaluation of the new WHO stem cell pathogenetic classification

Congress of Neurological Surgeons 56th Annual Meeting

Chicago, IL, October 7-12, 2006

Oral Presentation

Prevedello DM, Pouratian N, Sherman JH, Jane JA Jr, Lopes MB, Vance ML, Laws ER

Analysis of 445 patients with Cushing's disease treated by transsphenoidal surgery

North American Skull Base Society 17th Annual Meeting

Phoenix, AZ, February 19, 2006

1st Annual Sugita World Educational Video Symposium – Masters Presentation

Jane JA Jr, Sherman JH, Laws ER

The extended transsphenoidal technique for complex craniopharyngiomas

Congress of Neurological Surgeons 55th Annual Meeting

Boston, MA, October 8-13, 2005

Oral Poster Presentation

Sherman JH, Laws ER

The role of gamma knife surgery in the treatment of craniopharyngiomas

Congress of Neurological Surgeons 55th Annual Meeting

Boston, MA, October 8-13, 2005

Poster Presentation

Sherman JH, Pouratian N, Jane JA Jr, Laws ER

Reconstruction of the sellar dura in transsphenoidal surgery

Southern Neurosurgical Society's 2006 Annual Meeting

Key West, FL, March 3-6, 2005

Poster Presentation

Sherman JH, Hamilton DK, Burgos R, Phillips D, Jane JA Sr

Analysis of pineal cysts via MR imaging

Congress of Neurological Surgeons 54th Annual Meeting

San Francisco, CA, October 15-21, 2004

Poster Presentation

Sherman JH, Sheehan JP, Elias WJ, Jane JA Sr

Cerebellar mutism in adults after posterior fossa surgery: a report of two cases

American Association of Clinical Anatomists 19th Annual Scientific Session

University of Florida, Gainesville, FL, June 4-7, 2002

Oral Presentation

Sherman JH, Colborn GL

Absence of left inferior thyroid artery – clinical implications

Local Meetings

The Neurosurgical Society of the Virginias

The Jefferson Hotel, Richmond, VA, January 24-26, 2019

Oral Presentation

Sherman JH

Cold Atmospheric Plasma in the Treatment of Malignant Glioma

The Neurosurgical Society of the Virginias

The Omni Homestead, Hot Springs, VA, January 18 – 20, 2018

Oral Presentation

Adams C, Almeida N, Davis G, Starke B, Buro J, Nasr NM, McRae DA, Cernica GD, Caputy A, Hong RL, Sherman JH.

The effectiveness of PET-CT as a guide for palliative stereotactic ablative radiation therapy for spinal metastases

The Neurosurgical Society of the Virginias

The Greenbrier, White Sulfur Springs, WV, January 19 – 21, 2017

Oral Presentation

Sherman JH

Pineal Cysts: Factors Predictive of Hydrocephalus and Malignancy

The Neurosurgical Society of the Virginias

The Greenbrier, White Sulfur Springs, WV, March 3-5, 2016

Oral Presentation

Sherman JH

Defining and Treating Recurrent Brain Metastases

The Neurosurgical Society of the Virginias

The Greenbrier, White Sulfur Springs, WV, January 22-24, 2015

Oral Presentation

Siu A, Volotskova O, Keidar M, Sherman JH

Cold atmospheric plasma in the treatment of malignant glioma

The Neurosurgical Society of the Virginias

The Greenbrier, White Sulfur Springs, WV, January 23-25, 2014

Oral Presentation

Siu A, Volotskova O, Keidar M, Sherman JH

Cold atmospheric plasma in the treatment of malignant glioma

The Neurosurgical Society of the Virginias The Greenbrier, White Sulfur Springs, WV,
January 24-26, 2013

Oral Presentation Sherman JH, Fralish M, Karpinsky B, Maynard T, LaMantia A *Neural precursor cells in glioblastoma: developing new treatment targets*

The Neurosurgical Society of the Virginias The Greenbrier, White Sulfur Springs, WV,
January 24-26, 2013 Oral Presentation Siu A, Volotskova O, Keidar M, Sherman JH

Cold atmospheric plasma in the treatment of malignant glioma The Neurosurgical Society of the Virginias The Greenbrier, White Sulfur Springs, WV, January 19-21, 2012

Oral Presentation Sherman JH, Bilsky MB *The integration of spine stereotactic radiosurgery into existing treatment paradigms*

Research Projects

West Virginia University and The George Washington University

Spring 2012 – Present

Research in conjunction with Michael Keidar, PhD

Researching the use of cold atmospheric plasma technology in the treatment of malignant glioma

West Virginia University and The George Washington University

Spring 2018 – Present

Research in conjunction with James Hahn, PhD

Development of a low cost, portable versatile simulator with haptic feedback

West Virginia University and Johns Hopkins University

Fall 2018 – Present

Research in conjunction with Matthias Holdholff, MD

Researching clinical parameters that impact treatment in primary CNS lymphoma in the development of a local lymphoma consortium

The George Washington University and Duke Medical Center

Spring 2019 – March 2020

Research in conjunction with Katy Peters, MD

Characterization of the forkhead gene FOXJ1 as a biomarker in low grade glioma in the development of a multi-institutional clinical trial

The George Washington University

Winter 2019 – March 2020

Research in conjunction with Kirsten Brown, PhD

Research studying the role of Virtual Reality to Enhance Gross Anatomy Education in Graduate and Medical Student Programs

The George Washington University

Spring 2017 – March 2020

Research in conjunction with Ramin Javan, MD, Keith Mortman, MD and Neil Sikka, MD
Development of an Innovations Institute George Washington University

The George Washington University and Children's National Medical Center

Fall 2017 – March 2020

Research in conjunction with Michael Keidar, PhD, Javad Nazarian, PhD, and Carlos Sanchez, MD

Researching the use of cold atmospheric plasma technology in the treatment of DIPG

The George Washington University, Department of Pharmacology & Physiology

Spring 2011 – Fall 2019

Research in conjunction with Anthony LaMantia, PhD

Characterization of the forkhead gene FOXJ1 as a biomarker in glioblastoma

The George Washington University and Children's National Medical Center

Fall 2017 – Spring 2018

Research in conjunction with Javad Nazarian

Researching the role of FoxJ1 as a biomarker in DIPG

The George Washington University, Neurosurgery Department

Winter 2015 – Spring 2018

Research in conjunction with Dr. Michael Keidar

Research analyzing excitation and control of neural fiber activity in a weak non-thermal microwave field

The George Washington University, Department of Pharmacology & Physiology

Spring 2011 – Spring 2018

Research in conjunction with Dr. Anthony LaMantia and Dr. Sally Moody

Characterization of neural precursor cells in glioblastoma: developing new treatment targets

The George Washington University, Department of Pharmacology & Physiology

Fall 2011 – Fall 2017

Research in conjunction with Dr. Anthony LaMantia and Dr. Sally Moody

Researching the role of FoxD4 on murine neuronal differentiation

The George Washington University, Neurosurgery Department – Fall 2011 – Spring 2012

Research in conjunction with Dr. Ferid Murad

Researching the effects of combination phosphodiesterase-5 inhibitor and brain natriuretic peptide on glioma progression

University of Virginia, Neurosurgery Department – Fall 2009 – Summer 2010

Research in conjunction with Dr. John Jane, Sr.

Researching brain tumor tissue oxygenation levels in patients with malignant glial neoplasms

University of Virginia, Neurosurgery Department – Summer 2006 – Spring 2008
Research in conjunction with Dr. Isa Hussaini
Researching BAY 54-9085 induced radiosensitization of glioblastoma multiforme

University of Virginia, Neurosurgery Department – Summer 2006 – Spring 2008
Research in conjunction with Dr. Isa Hussaini
Researching stem cells in relation to the growth of glioblastoma multiforme

University of Virginia, Neurosurgery Department – Summer 2006 – Spring 2008
Research in conjunction with Dr. Isa Hussaini and Dr. John Jane, Jr.
Researching stem cells in relation to the growth of pituitary adenomas

University of Virginia, Neurosurgery Department – Summer 2006 – Spring 2008
Research in conjunction with Dr. Jason Sheehan
Researching brain tumor hyperoxygenation in a rat glioma model

University of Virginia, Neurosurgery Department – Summer 2006 – Spring 2008
Research in conjunction with Dr. John Jane, Jr. and Dr. Jeffrey Barth.
A neuropsychological evaluation: pre and post-operative patients with Cushing's disease

University of Virginia, Neurosurgery Department – Summer 2007 – Spring 2008
Research in conjunction with Dr. Jason Sheehan
Researching focused ultrasound surgery for brain parenchyma lesioning

Medical College of Georgia, Neurosurgery Department – Summer 2002 – Spring 2003
Research in conjunction with Dr. Jim Fick
Researched the pathophysiology of cysts associated with intracranial tumors

Medical College of Georgia, Neurosurgery Department – Spring 2002 – Spring 2003
Research in conjunction with Dr. Karsten Fryburg
Researched the reproducibility of ICP variability as seen in seizures

Medical College of Georgia, MCG Hospital – May 2000 – December 2000
Dean's Student Research Fellow for Dr. Sheppard Mondy, Vascular surgeon
Researched the relationship between heat shock proteins and vasoconstriction

Medical College of Georgia, MCG Hospital – Fall 2000
Research assistant for Dr. Sheppard Mondy, Vascular surgeon
Clinical research on the incidence of leiomyosarcoma in the abdominal aorta

Georgia Institute of Technology, Chemistry Department – January 1997 – June 1997
Research assistant for Dr. Leon Zalkow
Organic chemistry research in the development of new therapies for AIDS

Georgia Institute of Technology, Bioengineering Department – March 1996 – June 1996
Research assistant for Dr. Ajit P. Yoganathan
Researched the dynamics of fluid flow in the diagnosis of heart disease

Resident Activities

University of Virginia:

* UVA:

UVA Neurosurgery Medical Student Interest Group – Coordinator – 2006 – 2008
Development of Integra Medical Student Summer Research Grant
Graduate Medical Education Committee – 2006 – 2008
Neuroradiology Internal Review Committee – September 2006
Neurotology Internal Review Committee – February 2008
Assistant for Medical Neuroscience Course for 1st Year Medical Students – 2007 – 2009
Temporal Bone Anatomy Dissection Course – Course Director – May 2007
Skull Base Anatomy Dissection Course – Course Director – June 2007
Skull Base Anatomy Dissection Course – Course Director – September 2007
Endoscopic Skull Base Anatomy Dissection Course – Course Director – December 2007
Endoscopic Skull Base Anatomy Dissection Course – Course Director – February 2008
PHS 881 class: Fundamentals of Epidemiology – Summer 2007
PHS 880 class: Introduction to Biostatistics – Winter 2008

* AANS:

AANS Young Neurosurgeons Committee – 2006 – 2009
Organizing medical student education – 2006 – 2009
Neurosurgical Top Gun – 2007 – 2008
American Association of Neurological Surgeons 76th Annual Meeting, April 2008
Marshall for Functional Mapping Breakfast Seminar
American Association of Neurological Surgeons 78th Annual Meeting, May 2010
Marshall for International Endoscopy Masters Practical Clinic

* CNS:

Nomination of CNS Executive Committee – March 2011
3-D Surgical Anatomy Course for Senior Residents, August 2010
Designed Course Manual
SANS Lifelong Learning Committee Resident/Fellow Representative – 2007 – 2010
Helped organize SANS written board's module
Routine vetting of submitted SANS questions
Authored questions for SANS fundamentals module
Authored neuro-oncology SANS questions

CNS Education Committee Resident/Fellow Representative – 2008 – 2010
Helped organize CNS University video archive
Served as team captain for CNS image database migration
Congress of Neurological Surgeons 59th Annual Meeting, October 2009
Sergeant at Arms
CNS Scientific Program Committee Resident Liaison – 2007 – 2008
Congress of Neurological Surgeons 56th Annual Meeting, October 2006
Sergeant at Arms to Neurosurgical Forum

Medical Student Activities

Medical College of Georgia:

- Junior medical student clinical mentor for freshman – November 2001 – June 2002
- Salvation Army Homeless Clinic: Administrator – January 2000 – January 2001
- Sophomore medical student advisor for freshman – August 2000 – May 2001
- Students for Intercultural Medicine: Volunteered at the public hospital in San Pedro Sula, Honduras – July 2000
- Students for Community Involvement: Educated students on smoking – 2000
- AMSA member – 1994 – 2003
- Volunteer tour guide for prospective medical students – 1999 – 2001

Undergraduate Activities

Georgia Institute of Technology:

- Georgia Tech Student Foundation: Board of Trustees – 1997 – 1998
Georgia Tech Executive Round Table – 1997 – 1998
- Grady Memorial Hospital Emergency Room: Volunteer – December 1996 – June 1997
- Flying Doctors of America: Medical mission to the Dominican Republic – Sept 1996
- Emory University Hospital Heart Center: Volunteer – June 1995 – September 1995
- Pi Kappa Phi Fraternity – 1994 – 1998
 - Chairman: Scholarship, Rush, and Brotherhood Committees; Pledge Class President
- The Gamma Beta Phi Society: Secretary – 1995 – 1997
- Freshman Area Judicial Board: Chief Justice – Fall 1994 – Spring 1995
- Freshman Representative for Student Government – Fall 1994 – Spring 1995
- Freshman Council Representative – September 1994 – June 1995