

Julie G. Pilitsis MD, PhD

Departments of Neurological Surgery/Neuroscience and Experimental Therapeutics
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CURRENT POSITION

- Chair of the Department of Neuroscience and Experimental Therapeutics, Albany Medical College, Albany NY November 2015-current
- Professor with Tenure- Department of Neurosurgery and Department of Neuroscience and Experimental Therapeutics, Albany Medical College, Albany NY August 2015-current
- Division Chief- Functional Neurosurgery, Albany Medical College, Albany NY, August 2015- current

EDUCATION

Fellowship: Rush University Medical Center 2006-2007
Functional Neurosurgery with Roy Bakay, MD
Chicago, IL

Residency/Internship: Wayne State University 1998-2006
Department of Neurosurgery
Detroit, MI

Doctorate: Wayne State University Ph.D. May 2002
Department of Physiology
Detroit, MI

Medical: Albany Medical College M.D. May 1998
MD with Distinction in Research
Albany, NY

College: Rensselaer, B.S. Biology, Magna Cum Laude 1996
Six year combined BS/MD program with AMC
Troy, NY

ADDITIONAL EDUCATION

- Leadership for mid-career health care professionals; Harvard School of Public Health; November 2-14, 2014
- Junior Faculty Development Program, University of Massachusetts, September 2010-May 2011

APPOINTMENTS

- Associate Professor- Division of Neurosurgery and Department of Neuroscience and Experimental Therapeutics, Albany Medical College, Albany NY August 2011-July 2015
- Affiliate Faculty- University of Massachusetts Worcester MA August 2011-2017
- Assistant Professor- Division of Neurosurgery, Department of Clinical Population and Health Research, Neuroscience, Director of Functional Neurosurgery University of Massachusetts Worcester, MA 2007-August 2011
- Clinical Instructor – Department of Neurosurgery, Rush University Chicago IL 2006-2007

ACTIVE LICENSURE/BOARDS

- State of New York 2011

PATENTS

- US 10,182,897 B2 Piecuch B, Kasvikis D, Genova PA, Fischer GS, Pilitsis JG. Surgical Head Clamp and Robotics Platform
- US 2011/0077504 A1 Fischer G, Cole C, Pilitsis JG. System and Method for Robotic Surgical Intervention

GRANTS AND CONTRACTS

NIH (Current)

NIH 2R01CA166379-06

Fischer; Pilitsis MPI 9/2018-9/2023
\$3,222,785

MR-Guided Precision Conformal Ablation Therapy for Brain Tumors

The major goals of this project are to provide new tools capable of targeting and ablating difficult-to-reach regions of human brain for treatment of cancer and other disorders.

NIH 1U44NS115111-01

McLaughlin (PI), Pilitsis (Site PI)
9/2019-9/2021
\$9,217,371

High Resolution Spinal Cord Stimulation for Non-opioid Treatment of Chronic Pain

The major focus is to develop a 64 contact SCS paddle to allow for modulation of the dorsal horn in addition to the dorsal columns.

NIH (Pending)

NIH 1R01 Anticipated; scored 1% percentile

Golestani Rad; Pilitsis (Sub PI)
4/1/2021-03/31/2026

Reconfigurable MRI technology for safe and high-resolution imaging of deep brain stimulation at 3T

Goals of this project are to construct a reconfigurable head coil that can be adjusted on a patient by patient basis to eliminate RF heating during MRI at 3T, Develop and validate computer-assisted implantation strategies that minimize variation and reduce the magnitude of RF heating during MRI at 3T and to perform a pilot study to determine safe range of imaging parameters when using the RPA coil in DBS patients with modified trajectories.

NIH (Completed)

NIH/SBIR 1 R43 NS107076-01A1

Burdette, Pilitsis MPI
9/2018-9/2019
\$162,119

External focused ultrasound modulation of the dorsal root ganglia: mechanisms underlying in vivo anti-nociceptive responses

The major goal of this project is to propose a fully external application-specific “soft-focused” HIFU theranostic device which can noninvasively pulse modulate thermal energy to treat chronic neuropathic pain.

NIH/NIBIBR03EB024705

Golestani Rad PI; key personnel
7/1/2017-6/30/2019
\$50,000

Computational Methodologies for Safety Assessment of MRI in Patients with Deep Brain Stimulation Implants The major goal of this project is to develop computational methodologies that consistently and reliably predict heating of brain tissue during MRI of patients with deep brain stimulation implants.

NIH 1R01CA166379-01A1

Fischer; Pilitsis MPI
5/2013- 5/2018
\$2,464,603

MR-Guided Precision Conformal Ablation Therapy for Brain Tumors

The major goals of this project are to provide new tools capable of targeting and ablating difficult-to-reach regions of human brain for treatment of cancer and other disorders.

NIH R43 NS064640-01A2

Margolin Co-PI; Novak Co-PI; Pilitsis
Co-Investigator
12/15/2009 - 12/14/2010
Total direct cost \$202,186

Software Guided Localization of the Subthalamic Nucleus during DBS Surgeries;
University of Massachusetts

Investigator Sponsored Research (Active)

Medtronic

Pilitsis (PI) 11/1/18-present

\$75,855

The Efficacy of Shuffle 2.0 stimulation vs high dose stimulation in chronic pain patients The major goal of this project is to determine whether shuffling of tonic and HD SCS (termed "Shuffle 2.0") is more effective at controlling pain than traditional SCS.

TerSera Pharmaceuticals

Pilitsis (PI) 11/22/16-present
\$109,638

Prospective Study of Conservative Ziconotide Dosing as a First-Line Intrathecal Drug Therapy for Neuropathic Pain

The major goal of this project is to prospectively analyze a conservative treatment algorithm developed retrospectively (in a previous study) from our pain population.

Investigator Sponsored Research Completed

General Electric Global Research

Pilitsis (PI) 8/10/16-2019
\$241,168

Deep Brain Stimulation for Parkinson's Disease

The major goals of this project are to collaborate on a series of investigations for the improvement of magnetic resonance imaging (MRI) for patients receiving deep brain stimulation (DBS) therapy, using functional MRI to understand how changes in frequency affect brain activation following DBS. Improvements in perioperative scans were developed.

General Electric Global Research

Pilitsis (PI) 6/2/17-2019
\$32,400

Use of Anesthesia Monitoring Tool to Optimize Propofol Dosing in SCS Patients

This collaboration is intended to utilize the GE Propofol In Breath System (PIBS) machine during SCS surgery in order to better monitor and dose patients receiving propofol as standard anesthesia.

Boston Scientific

Pilitsis (PI) 2/8/18-5/19
\$71,088

The Efficacy of Combination Subthreshold and Tonic Spinal Cord Stimulation in Chronic Pain Patients

The major goal of this project is to compare the effects of simultaneously delivering concurrent tonic and subthreshold stimulation on outcomes.

Abbott

Pilitsis (PI) 6/2/17-2018
\$26,263

Stimulation Change Effects on Quantitative Sensory Testing in Neuromodulation Patients

This is a prospective study looking at the effects of bursting stimulation in SCS patients using quantitative sensory testing.

Jazz Pharmaceuticals

Pilitsis (PI) 7/29/17-2018
\$9,947

Ziconotide treatment in rodent model of vincristine induced neuropathy

The major goal of this project is to provide insight into how Ziconotide may be used to treat cancer complications, determine the dosage for optimal outcomes, and help define the mechanism of action.

Boston Scientific

Pilitsis (PI) 6/1/15-2017
\$20,134

CoverEdge Algorithm: Study to Characterize the Effects of Programming Features of the Boston Scientific Precision Spectra AM Spinal Cord Stimulator System Using the CoverEdge Surgical Leads.

Medtronic

Pilitsis (PI) 3/1/17-12/30/17
\$11,910

Correlation between active contacts on thoracic SCS and outcomes/ demographics

Abbott

Pilitsis (PI) 10/1/17-12/31/17
\$4,590

Retrospective review of pre-operative MRIs in patients having undergone lumbar spine surgery

Medtronic

Pilitsis (PI) 4/6/17-12/31/17
\$58,593

The Efficacy of Shuffle High Frequency and Traditional Spinal Cord Stimulation in Chronic Pain Patients

Jazz Pharmaceuticals

Pilitsis (PI) 10/1/15-8/30/16
\$11,884

Retrospective Analysis of Prialt as a First-Line Intrathecal Drug Therapy

Worcester Biomedical Foundation Grant

Pilitsis (PI) 2009-2011
\$30,000

Functional Imaging as a Marker for Parkinson's Disease

Industry Study Site- Active

2019

Abbott

“Abbott DBS Registry of Outcomes for Indications over Time (ADROIT)”

2019

Abbott

“Evaluation of New technologies in extending use and pain relief with Spinal cord stimulation (PROLONG).” The purpose of this study is to understand the effectiveness of Abbott neurostimulation devices in restoring pain relief

and improving quality of life for patients with inadequate pain relief from their current spinal cord stimulation (SCS) system.

- 2019 **Abbott**
“Evaluation of the Infinity Deep Brain Stimulation Electrode Screening Mode Tool (EVIDENT)”
- 2019 **ReNeuron**
Pilot Investigation of Stem Cells in Stroke (PISCES): “A Randomised, Controlled Study of the Efficacy and Safety of Intracerebral Stem Cells (CTX0E03 DP) in Subjects with Disability Following an Ischemic Stroke”
- 2019 **Nevro**
“A Prospective Observational Multicenter Study of HF10 Therapy Using Surgical Leads (SURPASS)”
- 2019 **Nevro**
“A Multi-Center, Prospective, Pragmatic, Randomized, Controlled Clinical Trial to Compare HF10 Therapy to Conventional Medical Management in the Treatment of Non-Surgical Refractory Back Pain (SENZA)”
- 2017 **Boston Scientific**
“Precision Retrospective Outcomes (PRO) Study”
- 2017 **St. Jude**
“Post Market Clinical Follow Up Evaluating the Infinity Deep Brain Stimulation Implantable Pulse Generator System” (PROGRESS)
- 2017 **St. Jude**
Prospective Evaluation Comparing the Effects of Constant Current versus Constant Voltage in Deep Brain Stimulation using Hybrid Systems” (PREFERENCE-H)

Industry Study Site- Completed

- 2017 **Boston Scientific Neuromodulation Corporation**
“A prospective, multicenter, double-blinded, randomized, controlled study to evaluate the safety and effectiveness of motor function and overall quality of life in patients with the Vercise DBS System for the treatment of Parkinson's disease”
- 2017 **Boston Scientific**

“RELIEF (A Global Registry to Evaluate Long-Term Effectiveness of Neurostimulation Therapy for Pain)”

2017

Medtronic Inc.

“Prospective, Randomized Study of Multicolumn Implantable Lead Stimulation for Predominant Low Back Pain” (PROMISE)

5/2016

St. Jude Medical Neuromodulation Division, Site Primary Investigator
“SUNBURST (A clinical evaluation for the management of patients with failed Back surgery syndrome.”

2012

Advanced Neuromodulation Systems, Inc. D/B/A St. Jude Medical Neuromodulation Division

“A clinical evaluation for the management of patients with major depressive disorder, single or recurrent episode, with deep brain stimulation (Protocol C-07-01)

NATIONAL LEADERSHIP POSITIONS

2021-current AANS Nominating Committee

2020-current AANS Exhibitor Task Force

2019-2021 AANS Digital Content Advisory Committee

2019-current Congress of Neurological Surgeons

2019-current – Nominating Committee (2-year term)

2019-current Registry for the Advancement of DBS for Parkinson’s Disease (RAD-PD)

2019-current – Scientific Review Committee

2019-current – Parkinson Study Group (PSG)

2019-current Facial Pain Association - Board of Directors

2018-current International Neuromodulation Society

2018-current – INS Therapy Consensus Committee

2018-2020 – Scientific Program Committee

2014-current NREF Development Committee Member

2018-current FDA Neurological Panel Member

2012-current American Society of Stereotactic and Functional Neurosurgery

2012-2019 Executive Board Member

2020-2022 Secretary/Treasurer

2024-2026 Chair Elect

- 2014-current North American Neuromodulation Society- Board of Directors
 2014- 2016 Founding Chair- Women in Neuromodulation
 2019-present Treasurer
- 2015-2018 AANS Scientific Program Committee Member
- 2006-2017 AANS/CNS Pain Section
 2006-2008- Elected member of Executive Council
 2008-2011- Secretary Treasurer
 2011-2013 – Chair- Elect
 2013-2015 - Chair
 2015-2017- Immediate Past Chair
- 2008-2015 Executive Council- AANS Women in Neurosurgery
 2011-2012- Secretary Treasurer
 2012-2013- Chair- Elect
 2013-2014- Chair
 2014-2015 Immediate Past Chair
- 2009-2015 Council of State Neurosurgical Societies
 2011-2013- Vice Chair- Workforce Committee
 2012-2015- Chair- Public Relations Subcommittee
- 2011-2014 Executive Council- AANS/CNS Section on Trauma
 2011-2013- Chair-publications committee
- 2012-2014 Education Committee- Congress of Neurological Surgeons
- 2012-2014 Think First Board of Directors
- 2008-2011 Scientific Program Committee- Congress of Neurological Surgeons
- 2008-2015 Guidelines Committee of AANS/CNS
- 2002-2008 Young Neurosurgeons Committee of the AANS

STUDY SECTIONS

- 2019-2025 Emerging imaging technologies and applications (EITA)-Standing Committee Member
- 2018-2019 BRP – guest member
- 2018 ZNS1 SRB-A guest reviewer
- 2015-present (ZRG1 SBIB-Q) PAR Panel: Academic-Industrial Partnerships Research for Cancer Diagnosis and Treatment; standing member
- 2017-present (BMIT-A) Biomedical Imaging Technology A Study Section; guest member

HONORS AND AWARDS

2020	Selected as featured article, in the TBME October Issue, 2020: An Integrated Robotic System for MRI-Guided Neuroablation: Preclinical Evaluation.
2020	ASSFN 2020 Biennial Meeting Top Pain Poster entitled “Composite Score is a Better Reflection of Patient Response to Chronic Pain Therapy Compared with Pain Intensity Alone”
2020	CNS Paper of the Year entitled “Functional MRI signature of chronic pain relief from deep brain stimulation in Parkinson’s disease patients”
2019	<i>Neurosurgery</i> Pain Paper of the Year for paper entitled “Spinal Cord Stimulation for the Treatment of Chronic Pain Reduces Opioid Use and Results in Superior Clinical Outcomes When Used Without Opioids”
2017	Sosa Academy of Medicine – Educational Development & Innovation Award Albany Medical College Graduation in 2017
2015	Sosa Academy of Medicine – Outstanding Mentor Albany Medical College- one award given annually or biennially to most deserving medical school faculty Albany Medical College Graduation in 2017
2011	Congress of Neurological Surgery- CSNS Section- Best poster- Medial Student Education in Neurosurgery
2010-11	Selected for Junior Faculty Development Program University of Massachusetts
2008,2009	Nominee- Deep Brain Stimulation Team Champions of Excellence Award; UMass Memorial Medical Center
2003	William H. Sweet Young Investigator Award Annual National award in Pain research- AANS/CNS Pain section
2003	Resident Award – Best research presentation Michigan Association of Neurological Surgeons
2003	Semifinalist- Student research National Neurotrauma Society
2001,2002,2003	Academic Achievement Award Dept. of Neurosurgery- Wayne State University
2001, 2002	Neuroscience Travel Award- Wayne State University
1999	Intern of the Year Department of Surgery- Wayne State University
1996,1997	Dean’s Certificate for Outstanding Research Endeavor

Albany Medical College

EDUCATIONAL ACTIVITIES

Other Awards

- 2019 Faculty mentor-NANS Best Poster in DBS award was given at 2019 NANS Annual Scientific Meeting; Recipient: Ilknur Telkes PhD "The Role of Parkinson's Disease Motor Symptoms in Selection of Stimulus Parameters"
- 2018 Faculty mentor- AANS Third Place Eposter award given at 2018 AANS Annual Scientific Meeting; Recipient: Marisa DiMarzio BS "Use of functional MRI to understand modulation of chronic pain in Parkinson Disease patients with DBS"
- 2016 Faculty mentor-"Recognizing Excellence in Poster Presentation" award presented at Albany Medical College Graduate Student Awards Day; Recipient: Lucy Gee, PhD "The effects of subthalamic deep brain stimulation on sensory thresholds and sensory neurocircuitry in a 6-hydopamine rodent model of Parkinson's disease"
- 2010 Faculty mentor- AANS national medical student award- 1 award given annually; Recipient: Gina Deck BS "The effect of age and comorbidities on outcomes in subdural hematomas"
- 2009 Faculty mentor- AANS national medical student award Recipient: Anthony Burrows BS "Comparison of gait and cognitive function with STN v. ZI DBS in Parkinson's Disease"
- 2008 American Parkinson's Disease Association Summer Fellowship Faculty mentor- Anthony Burrows BD "Comparison of gait and cognitive function with STN v. ZI DBS in Parkinson's Disease" University of Massachusetts

Teaching

- 2019- current Course Director- MS/Certificate Program in Clinical Investigation
- 2018- current Director of ASSFN Mentorship Program
- 2018-current Director- NANS leadership development pre-conference section
- 2015-current Co-director Junior Faculty Development Program, Albany Medical College
- 2011-2015 Co-director- National mentorship program for medical students in neurosurgery through Women in Neurosurgery
- 2012-current Founder/Organizer- Albany Medical College Educational Program for Parkinson's Disease patients May 19, 2012, June 5, 2013
- 2009-2011 Director of Medical Student rotation in Neurosurgery/ENT
3rd year medical student rotation (30-40 students); lecture to all Medical students in surgery

- 2007-2011 Founder/Organizer
University of Massachusetts Educational Program for Parkinson's Dec 1, 2007; May 1, 2008, April 30, 2009, May 15, 2010; May 7, 2011
(150 community attendees; 5-10 medical student volunteers)
- 2010-2011 High School Summer Internship- (1 student for 1 month);
exposure to clinical practice and research in neuroscience
- 2008-2011 Examiner, End of Third Year Examination (10 students)
- 2008- 2011 AMWA Faculty Advisor; supervise 4 events annually and
fundraising; University of Massachusetts
- 2010 Judge- Worcester School District Science Fair
Worcester, MA
- 2000-2002 Neurophysiology Course/Lab, Teaching Assistant, 15 students
Wayne State University

Advising

Current

- Pallavi Datta (summer 2020) Summer Lab Student from Niskayuna High School; comparing outcomes of those who had back surgery prior to spinal cord stimulation to those who have not.
- Yoonah Chang (Summer 2020) Summer Lab Student from Stuyvesant High School; investigating a novel method of determining the minimal clinically important difference in various outcome measure.
- Eleni Varelas (Summer 2020) Summer Lab Student from Michigan State University
- Melanie Bondoc (Summer 2020) Summer Lab Student from Albany Medical College; comparing spinal cord stimulation outcomes in patients older than 75 years to patients younger than 75 years old.
- Gregory Topp (Summer 2020) Summer Lab Student from Albany Medical College; investigating the use of anticoagulants when performing deep brain stimulation surgery and any associated complications resulting from the medication.
- Michelle Williams (Summer 2020) Summer Lab Student from Albany Medical College; investigating how caring for/owning pet(s) may affect the patients' health and well-being both before and after spinal cord stimulation.
- Guy Gechtman (Summer 2020) Summer Lab Student from Albany Medical College; exploring various possible comorbidities or risk factors for developing pocket neuritis following spinal cord stimulation.

- Harini Byraju (Summer 2020; 2019; 2018) Summer Lab Student from Shaker High School; investigating the use of anticoagulants when performing deep brain stimulation surgery and any associated complications resulting from the medication.
- Linda Park (summer 2020; 2018) Summer Lab Student from University of Pittsburgh; explore how internal bodily perception affects feelings of pain and the emotions associated with them in chronic pain patients.
- Alicia Clum (Summer 2020; 2019) Summer Lab Student from SUNY Binghamton; investigating myelin structure and size in the common peroneal nerve after low intensity focused ultrasound (liFUS).
- Andrea Liss (Summer 2020; 2019; 2018) Summer Lab Student from SUNY Binghamton; investigating if activation of satellite glial cells occurs in cells surrounding damaged/stressed neurons after low intensity focused ultrasound using double-label immunofluorescence.
- Shelby Sabourin (Summer 2020;2019; 2018) Summer Lab Student from University of Rochester; investigating the minimal clinically important difference in various outcome measure and exploring the role of bodily perception in feelings of pain and associated emotions in chronic pain patients.
- Amanda Custozzo (2019-current) Medical Student; Albany Medical College: exploring the degree of loneliness in chronic pain patients.
- Gavril Rosoklija (2019-current) Medical Student; Albany Medical College: investigating whether chronic pain patients are more lonely and whether spinal cord stimulation reduces the degree of loneliness due to a reduction in pain
- Emilia Iannilli, PhD (2019-2020) DNET Research Associate; using EEG and fMRI to assess the impact of bMBI on chronic pain.
- Jonathan Bao (Fall 2019-current) Physician/Scientist student; thesis advisor for MDDR; Using plexon to record neuronal activity in the S1 and ACC (brain regions), in a Common Peroneal nerve injury rat model, pre and post low intensity focused ultrasound
- Zahabiya Campwala (Fall 2019-current) Physician/Scientist student; thesis advisor for MDDR; MRI guided robot-assisted needle-based therapeutic ultrasound in pigs; additionally comparing outcomes of those who had back surgery prior to spinal cord stimulation to those who have not.
- Vraj Patel (Fall 2018-current) Physician/Scientist student; thesis advisor for MDDR; investigating protein levels of different sodium and potassium ion channels in the rat CPNI model that may be associated with the ultrasound treatment by performing western blot analysis.
- Ilknur Telkes (Fall 2017-current) Post-doctoral fellow; exploration of intraoperative LFPs and SUAs to find biomarkers with signal processing techniques for optimization of neuromodulation treatment in movement disorders and chronic pain.

- Abby Hellman (Fall 2017-current) PhD student; thesis advisor; In vivo effects of low intensity focused ultrasound in animal models of chronic pain.

Past

- Jon McKinley (Summer 2019-2020) Summer Lab Student from Albany Medical College; Using EEG to study spatio-temporal dynamics of pain perception after mindfulness meditation.
- Kelsey Platanitis (2019) Medical Student; Albany Medical College; investigating sex differences in pain outcomes of Parkinson's Disease patients after deep brain stimulation.
- Rachael Dawson (2019) Medical Student; Albany Medical College; explored the treatment modalities using a multi-disciplinary approach for treatment of chronic pelvic pain and the outcomes of those who underwent neuromodulation treatment.
- Adithya Srikanthan (Fall 2018-2019) Physician/Scientist student; thesis advisor for MDDR; investigating protein levels of different inflammatory markers in the rat CPNI model by using a Proteome Profiler Rat Cytokine Array Kit.
- Marisa DiMarzio (Fall 2016-2019) PhD student; thesis advisor; uncovering the effects of DBS on brain activation patterns in Parkinson's disease.
- Drishti Panse (2017-2019) Physician/Scientist student; thesis advisor for MDDR; use of FUS to treat chronic migraine.
- Asya Akca (Summer 2019) Summer Lab Student from Hacettepe University Medical School; Turkey; observed in the operating room.
- Rachel Dentinger (Summer 2019) Summer Lab Student from Shaker HS; investigating correlations between family history of psychiatric disorders and spinal cord stimulation outcomes.
- Neslihan Gecici (Summer 2019) Summer Lab Student from Hacettepe University Medical School; Turkey; observed in the operating room.
- Maria Hancu (Summer 2019; 2018) Summer Lab Student from Poolesville HS, Poolesville MD; using EEG to determine the effects of mindfulness meditation on pain perception.
- Moje Omoruan (Summer 2019) Summer Lab Student from Upstate Medical University; investigated diversity among neuromodulators.
- Bre Sheldon (Summer 2019) Summer Lab Student from Albany Medical College; explored whether a family history of psychiatric history correlated with spinal cord stimulation outcomes.
- Stefan Stan (Summer 2019) Summer Lab Student from Niskayuna HS; investigation

of the use of low-dose ziconotide as a first-line intrathecal drug for neuropathic pain.

- Kim Thill (Summer 2019) Summer Lab Student from Albany Medical College; using high dose and high frequency stimulation in spinal cord stimulation to determine optimal settings
- Lucian Williams (Summer 2019) Summer Lab Student from Sienna College; evaluating the use of high dose and/or high frequency stimulation in spinal cord stimulation.
- Olivia Zimmerman (Summer 2019) Summer Lab Student from Union College
- Aira Agrawal (Summer 2018) Summer Lab Student from Emma Willard; exploring the use of external low intensity focused ultrasound on electrophysiological changes in vivo in a rodent model of common peroneal nerve injury.
- Olga Khazen (Summer 2018) Summer Lab Student from Union College; investigated gastrointestinal/ genitourinary outcomes in Parkinson's Disease patients after deep brain stimulation.
- Tanweer Rashid (2017-2018) Post-doctoral fellow; understanding neural connectivity in Parkinson's disease deep brain stimulation
- Tarun Prabhala (2017-2018) Medical Student; thesis advisor for MDDR Physician/Scientist student; high intensity focused ultrasound treatment for neuropathic pain induced by common peroneal nerve injury
- Miriam Shao (2017-2018) Medical Student; thesis advisor for MDDR Physician/Scientist student; effects of subthalamic nucleus DBS with duloxetine on escape/avoidance behavior in a Parkinson's disease pain rodent model
- Jacquelyn MacDonnell (2017-2018) Medical Student; thesis advisor for MDDR; correlation of MR-images and histology of ablation volumes following HIFU in a swine model
- Vignesh Kumar (2014-2019) Medical Student; thesis advisor for MDDR; effect of neuromodulation on objective measures of activity; prospective work with SCS accelerometry to improve patient stimulation parameters
- Youngwon Youn (2014-2017) Medical Student; thesis advisor for MDDR; SCS patients and how high frequency stimulation affects pain and sensory thresholds
- Zohal Ghulam-Jelani (2017) Medical Student; prospectively analyzing data collected in neuropathic pain patients treated with ziconotide intrathecal drug therapy
- Hirah Khan (2017) Medical Student; analyzing use of anticoagulation therapies and SCS outcomes as well as working with our SCS database
- Yufan Lin (2017) Medical Student; propofol concentration in exhalation of SCS patients and understanding the interaction between location of active cathode

contacts and SCS outcomes

- Amelia Stapleton (2017) Undergraduate student at Smith College; effects of subthalamic nucleus DBS with duloxetine on escape/avoidance behavior in a Parkinson's disease pain rodent model
- Tamana Kaderi (2015) Medical student; tremor rating scale outcomes in patients with DBS for PD
- Stephan Owusu-Sarpong (2015) Medical student; low frequency subthalamic nucleus deep brain stimulation on chronic pain outcomes
- Stephanie Owusu (2015) Medical student; patient satisfaction with subparesthesia waveforms
- Claire Collison (2015-2016) Medical student; intraoperative neuromonitoring in determining physiologic midline in SCS
- Rasan Cherala (2015) Medical student; psychological assessment tool as a predictor for SCS outcomes
- Olivia Marola (2015-2016) Post-Bachelor student; expression of cfos in brain pain nuclei with neuromodulation
- Abigail Belasen (2014-2016) Medical student; effect of pinch stimulus on local field potentials
- Khizer Rizvi (2015- 2016) Medical Student; effects of peripheral nerve stimulation on sensory thresholds
- Philip Yeung (2015-2016) Medical student; effects of neuromodulation on quantitative sensory testing
- Steve Roth (2012-2016) Medical Student; intraoperative monitoring for spinal cord stimulation; Resident in neurosurgery
- Lucy Gee (2014-2016) MD/ PhD student; thesis advisor; assessment of SCS/DBS on pain in PD rodent model
- Heather Smith (2014-2016) Medical student; neuropsychological effects of DBS long-term; Resident in neurosurgery
- Nita Chen (2014-2016) Medical student; effect of eye opening on local field potentials
- Tina Ramineni (2014-2016) Medical student; effect of SCS on sleep
- Priscilla De La Cruz (2014-2016) Medical student; directs research on animal and human pain and SCS

- Steve Lange (2014-2016) Medical student; effect of SCS on pedometry
- Brant Lai (2014-2016) Undergraduate student; effect of eye opening on local field potentials
- Hans Boggs (2014-2016) Medical student; the effects of DBS lead location on head tremor in essential tremor
- Sameah Haider (2014-2015) Medical student; complications/outcomes of neuromodulation; Resident in neurosurgery
- Samik Patel (2014-2015) Medical student; prospective SCS outcomes database
- Max Kahn (2014-2015) Medical Student; role of interleaving in DBS for Parkinson Disease; Neurosurgical content in medical education; Resident in neurosurgery
- Maheen Khan (2014) UKMC Medical student; case report on thoracic radiculopathy after spinal cord stimulator placement; Resident in neurosurgery
- Jessica Haller (2013-2015) Undergraduate Student SUNY Albany; research assistant for DBS/SCS patient studies
- Nicole Patel (2014) Medical student; effect of DBS on pre-pulse inhibition and startle response
- Chris Fama (2014-2016) Undergraduate Student University of Miami; research assistant for DBS/SCS patient studies; Medical Student at Temple University
- David Levine (2012-2014) Medical student; directed research on accuracy of DBS lead placement; directed writing of trigeminal neuropathic pain chapter
- Vikas Parmar (2011-2014) Medical student; directed research on impact of DBS on impulse control disorders in a prospective cohort of DBS patients; directed writing of case report of Rosai Dorfman and paper on neurosurgical treatment of pain; Resident- Univ of Wisconsin; Madison
- Cailey Simmons (2013-2014) Medical student; assisted in editing text book and review papers.
- Elaina Pullano (2013) Undergraduate Student; Williams; peripheral nerve stimulation outcomes
- Sujoy Phookan (2012-2014) Medical Student; DBS for Essential Tremor chapter and work on SCS for failed neck surgery syndrome; Resident in medicine
- Sarah Keating (2013) Medical Student; SCS for failed back surgery syndrome; Resident in neurology
- Britney Atwater (2010-2013) Undergraduate Student; directed her research in outcomes in neurosurgery; current study on impact of DBS on stress in a rodent

- model of Parkinson's disease; Worcester Polytechnic Institute (2010-current)
- Anthony Burrows (2007-2011) Medical Student; directed his research in DBS, healthcare utilization, general neurosurgery; Resident in Neurosurgery- Mayo Clinic 2011-current
 - Mary Linton Peters (2007-2011) Medical Student; directed her research in olfaction, DBS, and fMRI, and neurology/oncology; Resident in Medicine- BI Deaconess 2011- current
 - Jacob Kleinman (2008-2011) Medical Student; directed his research in olfaction and fMRI; MPH Student; Harvard University 2013; Resident in emergency medicine; Cancer research
 - Gina Deck, MD (2008-2009) Medical Student; directed her research in outcomes after subdural hematomas; Resident; Neurology; Lahey Clinic 2010
 - Micah Blais (2010-2011) Medical Student; directed his research in health care quality improvement; Resident; Orthopedic Surgery; Massachusetts General Hospital 2012
 - Sandra Beverly (2010-2012) Medical Student; directed her research in medical education; Medical Student (4th year); University of Massachusetts; Resident in emergency medicine
 - Julie Sargent (2010-2011) Undergraduate Student; directed her research in outcomes in neurosurgery; Hampton College 2010
 - Cassandra Cruz (2010-2011) Undergraduate Student; Faculty Mentor for major qualifying project in health care quality improvement; Worcester Polytechnic Institute 2011
 - Daniel Warden (2010-2011) Undergraduate Student; directed his research in outcomes in neurosurgery; UMass Lowell 2011; Medical Student- University of Massachusetts

Thesis Committee: Advisor

- Jonathan Bao (2019-current) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Zahabiya Campwala (2019-current) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Vraj Patel (2018-current) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Abigail Hellman (2017-current) /PhD; Advisor, Albany Medical College

- Marisa DiMarzio (2016-2019) /PhD; Advisor, Albany Medical College
- Miriam Shao (2016-2018) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Tarun Prabhala (2016-2018) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Jacquelyn MacDonell (2016-2018) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Vigneshh Kumar (2015-2017) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Arun Chockalingam (2015-2017) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Brian Kaszuba (2015-2017) MD with Distinction in Research Committee; Advisor, Albany Medical College
- Lucy Gee (2013-2016) MD/PhD; Advisor, Albany Medical College

Thesis Committee: Committee Member

- Zachary Olmsted (2020-current) MD/PhD Candidate: Thesis Committee Member, SUNY Downstate College of Medicine/SUNY Polytechnic Institute; College of Nanoscale Science
- Katie Gandomi (2019-Present) PhD Candidate: Thesis Committee Member, Worcester Polytechnic Institute
- Emily Mahoney (2017-current) PhD Candidate: Thesis Committee Member, Albany Medical College
- Haley Sprague (2018-2020) MS Candidate: Thesis Committee Member, Albany Medical College
- Wilson Yu (2012- 2015) PhD Candidate; Thesis Committee Member, Albany Medical College
- Manav Kumar (2014-2016) MDDR committee; Thesis Committee Member, Albany Medical College
- Paul MacMahon (2012-2014) MD with Distinction in Research Committee; Thesis Committee member, Albany Medical College
- Sujoy Phookan (2012-2014) MD with Distinction in Research Committee; Thesis Committee member, Albany Medical College

- Gregory Cole (2010-2012) PhD Candidate; Thesis committee member, Worcester Polytechnic Institute

PROFESSIONAL MEMBERSHIPS

Neurosurgery

2020-current	Institute of Neuromodulation
2019-current	Society of Neurological Surgeons
2014-current	North American Neuromodulation Society
2014-current	International Neuromodulation Society
2008-current	American Society of Stereotactic and Functional Neurosurgery
2008-current	Council of Society of Neurological Surgeons
2004-current	AANS/CNS Section in Pain
2000-current	American Association of Neurological Surgeons
2000-current	Women in Neurosurgery
1999-current	Congress of Neurological Surgeons

General

2016-current	Alpha Omega Alpha (AOA) – Medical Honor Society
2011-current	Medical Society of the State of New York
2008-2011	Massachusetts Medical Society; Worcester District Society
2006-2007	Illinois Medical Society
1998-2006	Medical Society of the State of Michigan; Wayne County
1994-2011	American Medical Association

CLINICAL SERVICE

2019-Present	Patent Advisory Committee (PAC) – Albany Medical Center
2019-Present	OR governance Committee- Albany Medical Center
2019-Present	Committee on Student Appeals - Albany Medical Center
2017-Present	Finance Committee - Albany Medical Center
2015-Present	SAB Committee-Albany Medical Center
2015-Present	DNET GEC Committee-Albany Medical College
2015-Present	DNET APT Committee-Albany Medical College
2015-Present	AGC Committee-Albany Medical Center
2012-Present	OR committee – Albany Medical Center
2012-2017	Anesthesia QIT committee- Albany Medical Center
2012-2018	Admissions Committee- Elected member- University of Massachusetts
2008-2011	Anesthesia QIT committee- University of Massachusetts
2008-2011	Quality Officer- Selected member Department of Surgery, University of Massachusetts
2008-2011	Founder/organizer Parkinson’s Disease Support Group University of Massachusetts
2001-2006	Marshall- American Association of Neurological Surgeons

EDITORIAL BOARD

1. Neuromodulation

2. Journal of Neurosurgery: Neurosurgical Focus Issue; February 2018 (Topic Editor)
3. Operative Neurosurgery (Section Editor for Stereotactic and Functional)
4. Journal of Neurosurgery (Section Editor for Stereotactic and Functional/Pain)
5. Stereotactic and Functional Neurosurgery

REVIEWER

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6. Neurosurgery
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8. Operative Neurosurgery
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10. Frontiers
11. Regional Anesthesia & Pain Medicine

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Chapters

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23. **Pilitsis JG**, Verhagen LM, Sani SB, Hughes LE, Toleikis JR, Bakay RAE. Factors associated with stimulation failure in essential tremor patients with Vim DBS. (Poster presentation- CNS-2006).
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25. Burrows A, Moser R, Weaver J, Litwin D, **Pilitsis JG**. The effect of the role out of Massachusetts health care reform on neurosurgical procedure reimbursements. (oral presentation- CNS 2008)
26. Peters, ML, Ravin PD, Novak P, Swearer J, King J, **Pilitsis JG**, A Case Control Study of Olfaction and Parkinson's Disease. Selected abstract/oral presentation American Medical Student Association 2008.
27. Peters, ML, Ravin PD, Novak P, Swearer J, King J, Dundamadappa SK, **Pilitsis JG**, DBS-implanted Parkinson's Disease Patients Show Better Olfaction Than Those Treated Medically, (Oral presentation AANS 2009)
28. Burrows AM, Ravin PD, Novak P, Dessureau B, Swearer J, **Pilitsis JG**, Limbic and Motor Function Comparison of Deep Brain Stimulation of the Zona Incerta and Subthalamic Nucleus. (Oral presentation AANS 2009)
29. Deck G, Carroll J, Tseng J, **Pilitsis JG**, The effect of age and co-morbidities on outcome following subdural hematoma evacuation (Oral presentation AANS 2010).
30. Kleinman J, Peters ML, Huang W, Ravin P, Novak P, King J, Boursily A, **Pilitsis JG**. Assessment of olfactory processing in Parkinson's Disease (oral presentation ASSFN 2010).
31. Kleinman J, Novak P, Ravin P, **Pilitsis JG**. Electrophysiological assessment of DBS battery malfunction (poster presentation ASSFN 2010).
32. Przybyszewski AW , **Pilitsis JG**, Margolin L , Barborica A; Ravin P, Novak P. Multi-parametric analysis assists in STN localization in Parkinson patients (Society for Neuroscience 2010).
33. **Pilitsis JG**, Przybyszewski WA, Margolin L, Barborica A Ravin P, Novak P. Multi-parametric analysis assists in STN localization in Parkinson patients. American Association of Neurological Surgeons Denver, Colorado April 2011, poster presentation.
34. Verhagen Metman, L, Toleikis JR, **Pilitsis JG**, Toleikis SC, Barborica A, Bakay RAE. Human STN Single Unit Activity Acquired during Deep Brain Stimulation. American Academy of Neurology Honolulu, Hawaii April 2011
35. **Pilitsis JG**, Beverly SA, Mazzola CM, Colen C, Ashley W, Steinmetz M. Medical Student Education in Neurosurgery. Congress of Neurological Surgeons Washington DC October 2011, forum presentation.
36. **Pilitsis JG**, Peters ML, Sargent J, Tseng J, Ng SC, Burrows AM; Growth rates and

patterns of deep brain stimulation. Congress of Neurological Surgeons. Washington DC, October 2011, forum presentation.

37. **Pilitsis JG**, Blais MC, Cruz C, Cocchirella A, Shaikh S, Hudlin M. A prospective study of a modified WHO checklist in the Neurosurgical Operating room. Congress of Neurological Surgeons. Washington DC, October 2011, poster presentation.
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39. **Pilitsis JG**, Cole G, Fischer G. Stereotaxy with Real-time MRI-Guided Robot Assistance. American Association of Stereotactic and Functional Neurosurgery. Oral Presentation June 2012
40. Campbell, J.C., Sheeran, K., Shin, D.S., **Pilitsis, J.** (October 2012). Deep brain stimulation of the subthalamic nucleus in the parkinsonian rat increases gamma oscillatory activity in the orbitofrontal cortex. Program No. 651.16. 2012. Neuroscience Meeting Planner. New Orleans, LA: Society for Neuroscience, 2012. Online.
41. Winfree C, Arle J, Machado A, Patil P, **Pilitsis JG**, Schwalb J, Slavin K. Practical Course in Neurostimulation For Residents. American Association of Neurological Surgeons Annual Scientific Meeting. Faculty April 27th 2013
42. Okonkwo D, Timmons S, Hawryluk G, Jallo J, Le Roux P, Medow J, **Pilitsis JG**, Slotkin J. Head Trauma: Current Treatments And Controversies With Hands-On Practical Session in Brain Monitoring. American Association of Neurological Surgeons Annual Scientific Meeting. Faculty April 28th 2013.
43. Levine D, Durphy J, Novak P, Molho E, Ramirez-Zamora A, **Pilitsis JG**. Accuracy in Staged Bilateral Deep Brain Stimulation Surgery. American Association of Neurological Surgeons Annual Scientific Meeting. Oral Presentation April 29th 2013.
44. Starr P, Goodman R, House P, Machado A, **Pilitsis JG**. Surgical Treatment of Parkinson's Disease. American Association of Neurological Surgeons Annual Scientific Meeting. Panelist April 30th 2013.
45. Smith T, Park A, Mithal D, Mogiler A, **Pilitsis JG**, Winfree C, Rosenow J. Survey of the Current State of Neurosurgical Chronic Pain Care And Education. AANS Annual Scientific Meeting. Oral Presentation April 30th 2013.
46. Ramirez-Zamora A, Molho E, **Pilitsis JG**. Globus pallidus interna deep brain stimulation for treatment of dystonic tremor. PSG Symposium Montreal Canada, October 1st, 2013.
47. de La Cruz P, Roth S, Campbell J, Heran Willock M, Pullano E.C., **Pilitsis JG**. Prospective Study on the Psychological Outcomes of Peripheral Nerve Stimulation for Cranial Pain. 30th annual Wilbert C. Jordan Research Forum. Poster Presentation
48. de La Cruz P, Roth S, Campbell J, Heran Willock M, Pullano E.C., **Pilitsis JG**. Prospective Study on the effects of peripheral nerve stimulation on quality of life.

April 2014 American Association of Neurological Surgeon Scientific Meeting. Poster Presentation

49. Roth S, **Pilitsis JG**, Haller J, Heran Wilock M, de La Cruz P, Spaniccioli, Gooch M.R. Analysis of Outcomes Following Neurophysiologically-Guided Spinal Cord Stimulation. 2014 AANS Annual Scientific Meeting. E-Poster Presentation
50. de La Cruz P, Roth S, Campbell J, Heran Wilock M, Pullano E.C., **Pilitsis JG**. Prospective Investigation of Peripheral Nerve Stimulation Functional Outcomes in Chronic Pain Patients. 2014 American Society for Stereotactic and Functional Neurosurgery Biennial Meeting. Poster Presentation
51. Roth S, Campbell J.C., Haller J, Heran M, de La Cruz P, Paniccioli S, Briotte M, Gooch M.R., **Pilitsis JG**. Prospective Study of Patient Outcomes Following Spinal Cord Stimulation with Intraoperative Monitoring. American Society for Stereotactic and Functional Neurosurgery (ASSFN) 2014 Biennial Meeting. Research Presentation and Moderator June 1, 2014
52. Fischer G.S., Burdette C, **Pilitsis JG**. Development of MRI-guided Robotic Hi-intensity Ultrasound Needle/Catheter for Ablation of Brain. 2014 Congress of Neurological Surgeons Annual Meeting, October 18 - 22 Boston, Massachusetts. Poster Presentation
53. Roth SG, Haller J, Heran M, Lange S, Campbell JC, De La Cruz P, **Pilitsis JG**. Do Advanced Programming Options Make a Difference in Spinal Cord Stimulation? 2014 Congress of Neurological Surgeons Annual Meeting, October 18-22 Boston, Massachusetts. Oral Presentation
54. De La Cruz P, Roth G, Campbell JC, Haller J, Wilock M, Lange S, **Pilitsis JG**. Predictors of spinal cord stimulation success. 2014 Congress of Neurological Surgeons Annual Meeting, October 18–22 Boston, Massachusetts. Oral Presentation
55. **Pilitsis JG**, Zamora A.R., Eijkholt M. Shaking up the debate; Quality of life measures as ethical justifications for earlier DBS interventions in Parkinson's Disease. American Society for Bioethics and Humanities (ASBH) October 2014 Annual Meeting. ASBH Proposal Presentation
56. Gee L, Campbell J, Shin D, **Pilitsis JG**. An Investigation of the Effects of subthalamic Deep Brain Stimulation on Thermal and Mechanical Thresholds in Parkinsonian rats. Original Science Program at the 2014 Congress of Neurological Surgeons Annual Meeting, October 18–22 Boston, Massachusetts. Oral Presentation and CNS Digital Poster
57. Youn Y, Smith H, **Pilitsis JG** The Effect of High Frequency Stimulation on Sensory Thresholds in Chronic Pain Patients, North American Neuromodulation Society, Dec 11-14, 2014 Las Vegas, NV; Poster presentation.
58. Smith H, Youn Y, **Pilitsis JG** Successful use of high-frequency spinal cord stimulation following traditional treatment failure. North American Neuromodulation Society, Dec 11-14, 2014 Las Vegas, NV; Poster presentation.

59. Smith H, Gee L, Youn Y, **Pilitsis JG** The effect of subthalamic nucleus deep brain stimulation on impulsivity. North American Neuromodulation Society, Dec 11-14, 2014 Las Vegas, NV; Oral presentation
60. Youn Y, Smith H, Morris B, Argoff C, **Pilitsis JG**. The Effect of High Frequency Stimulation on Sensory Thresholds in Chronic Pain patients. Centennial American Medical Women's Association Meeting, April 24-26, 2015 Chicago, Illinois. Poster Presentation.
61. Roth SG, Haller J, Heran M, Lange S, Campbell JC, De La Cruz P, **Pilitsis JG**. Intraoperative monitoring allows for lateralization of Spinal Cord Stimulators. May 2015, AANS, Washington DC, Oral Presentation
62. **Pilitsis JG** et al. Low Back Pain Relief and Patient-Specific Programming Optimization with a new 32-Contact Spinal Cord Stimulation (SCS) Surgical Lead May 2015, AANS, Washington DC, Oral Presentation
63. Kumar V, Wilock M, Youn Y, **Pilitsis JG**. Alterations in Stimulation Parameters in Response to Changes in Body Position, International Neuromodulation Society, June 2015, Montreal CA Poster presentation
64. Gee L, Shin D, **Pilitsis JG**. Thalamic relay and interneurons may play a role in altered mechanical thresholds following subthalamic deep brain stimulation (STN DBS) in 6 hydroxydopamine lesioned rodents International Neuromodulation Society, June 2015, Montreal CA Poster presentation
65. Youn Y, Kumar V, Smith H, Wilock M, Argoff A; **Pilitsis JG**. High Frequency Stimulation Decreases Thermal Thresholds in Patients with Neuritis. International Neuromodulation Society 12th World Congress, June 6-8, 2015 Montreal, Quebec, Canada. Poster Presentation.
66. Ramimeni T, Kumar V, DeLaCruz P, **Pilitsis JG**. A prospective assessment of the impact of spinal cord stimulation on sleep quality International Neuromodulation Society 12th World Congress, June 6-8, 2015 Montreal, Quebec, Canada. Poster Presentation.
67. Golebiowski D, Petrosky K, Van der Marel K, Hutto E, Curran E, Balkanska-Sinclair E, Bishop N, Santos R, Macri SC, Martin D, Gounis M, **Pilitsis JG**, Asaad W, Sena-Esteves M. Optimization of AAV vector design for safe expression of β -N-acetylhexosaminidase in the brain for Tay-Sachs disease gene therapy. ASGCT, May 2015, oral presentation
68. Walling I, Gee L, Neubauer P, Firth L, Williams E, Burdette C, **Pilitsis JG**. Pulse modulation of the occipital nerve using focused high intensity ultrasound improves mechanical thresholds in a chronic migraine rat model. National Center for Image Guided Therapy in Bethesda, Maryland, 3/15/16 Poster presentation.
69. Gee L, Burdette C, Ghoshal G, Kumar V, Walling I, Prusik J, Shin D, **Pilitsis JG**. Interstitial directional high intensity focused ultrasound in a 6-hydroxydopamine lesioned rodent model of Parkinson's Disease. 84th AANS Annual Scientific Meeting, April 30-May 4th, 2016 Chicago, IL. Oral Presentation.

70. Belasen A, Youn Y, Prusik J, Lai B, Ramirez-Zamora A, Gee L, Rizvi K, Yeung P, Shin D, Argoff C, **Pilitsis JG**. The effect of mechanical and thermal stimuli on local field potentials and single unit activity in Parkinson's disease. 84th AANS Annual Scientific Meeting, April 30-May 4th, 2016 Chicago, IL. Oral Presentation.
71. Marola O, Prusik J, Fama C, Kumar V, Cherala R, Wilock M, Crimmins J, **Pilitsis JG**. BMI as a predictor of spinal cord stimulation success in chronic pain patients. 84th AANS Annual Scientific Meeting, April 30-May 4th, 2016 Chicago, IL. Poster Presentation.
72. Owusu-Sarpong S, Haider S, Peris-Celda M, Wilock M, Prusik J, Youn Y, **Pilitsis JG**. Cervical Spinal Cord Stimulation: Outcomes with Percutaneous and Paddle Leads. 84th AANS Annual Scientific Meeting, April 30-May 4th, 2016 Chicago, IL. Oral Presentation.
73. **Pilitsis JG**, Barolat G, Brill N, Lechleite K, Moffitt M. Characterization of Paresthesia Distributions with Transverse Current Steering in Spinal Cord Stimulation using a 4-column Surgical Lead. 2016 Congress of Neurological Surgeons (CNS) Annual Meeting. September 24-28th, 2016. San Diego, CA. Digital Poster Presentation.
74. Walling I, Gee L, Neubauer P, Frith L, Williams E, Burdette C, **Pilitsis JG**. Pulse Modulation of the Occipital Nerve Using Focused High-intensity Ultrasound Improves Mechanical Thresholds in a Chronic Migraine Rat Model. 2016 Congress of Neurological Surgeons (CNS) Annual Meeting. September 24-28th, 2016. San Diego, CA. Oral Presentation.
75. Youn Y, Walling I, Gee L, Neubauer P, Frith L, Williams E, Burdette C, **Pilitsis JG**. High Intensity Ultrasound for the Treatment of Vincristine Induced Neuropathic Pain. 2016 Congress of Neurological Surgeons (CNS) Annual Meeting. September 24-28th, 2016. San Diego, CA. Oral Presentation.
76. **Pilitsis J**. Advances in Neuromodulation. The Art and Science of Pain: A Clinical and Research Update. October 15, 2016. Saratoga Springs, NY. Oral Presentation.
77. **Pilitsis J**, Barolat G, Brill N, Lechleiter K, Moffitt M. Transverse Current Steering in SCS using a 4-column Lead: Clinical Validation of Computational Modeling Data. North American Neuromodulation Society (NANS) Annual Meeting. January 19-22, 2017. Las Vegas, Nevada. Poster Presentation.
78. Prusik J, Prabhala T, Cherala R, Gruenthal E, Owusu S, Collison C, Wilock M, Hobson E, McCallum S, **Pilitsis JG**. Use of a Psychological Evaluation Tool as a Predictor of Spinal Cord Stimulation Outcomes. North American Neuromodulation Society (NANS) Annual Meeting. January 19-22, 2017. Las Vegas, Nevada. Poster Presentation.
79. Gruenthal E, Owusu S, Prusik J, Cherala R, Peng S, Feustel P, **Pilitsis, JG**. Prospective Evaluation of Patient Usage Patterns with Subparesthesia Waveforms. North American Neuromodulation Society (NANS) Annual Meeting. January 19-22, 2017. Las Vegas, Nevada. Poster Presentation.
80. Kumar V, Prusik J, Argoff A, **Pilitsis JG**. Therapeutic Efficacy of Alternating High Frequency Stimulation with Tonic Stimulation in the Treatment of Chronic Pain. North American Neuromodulation Society (NANS) Annual Meeting. January 19-22, 2017. Las

Vegas, Nevada. Poster Presentation.

81. Walling I, Gee L, Kaszuba B, Kumar V, Gannon S, Hellman A, Neubauer, Frith L, Williams E, Ghoshal G, Shin D, Burdette C, **Pilitsis JG**. The use of high intensity focused ultrasound for the treatment of cutaneous allodynia associated with chronic migraine: pulse modulation vs nerve ablation. North American Neuromodulation Society (NANS) Annual Meeting. January 19-22, 2017. Las Vegas, Nevada. Poster Presentation.
82. Deuel L, **Pilitsis J**, Ramirez-Zamora A. Battery consumption and need for replacement in patients with Parkinson disease treated with interleaved deep brain stimulation. *Movement Disorders* 2017;32(Suppl 2):S145. International Congress of Parkinson's Disease and Movement Disorders. June 4-7, 2017. Vancouver, BC, Canada. Poster Presentation.
83. Khan H, **Pilitsis JG**, Prusik J, Smith H, McCallum SE. Pain remission at one year follow up with Spinal Cord Stimulation. North American Neuromodulation Society (NANS) 21st Annual Meeting. January 11-14, 2018. Las Vegas, Nevada. Poster Presentation.
84. Lin Y, **Pilitsis JG**, Feustel P, Sukul V, Prusik J, McCallum SE. Comparison of Actove Cathode Locations in Patients with Tonic and Sub-Threshold Spinal Cord Stimulation. North American Neuromodulation Society (NANS) 21st Annual Meeting. January 11-14, 2018. Las Vegas, Nevada. Poster Presentation.
85. Gee L, Smith HC, Ghulam-Jelani Z, Khan H, Prusik J, Feustel PJ, McCallum SE, **Pilitsis JG**. Spinal cord stimulation for the treatment of chronic pain results in superior clinical outcomes when used without opioids. North American Neuromodulation Society (NANS) 21st Annual Meeting. January 11-14, 2018. Las Vegas, Nevada. Poster Presentation.
86. Lin Y, MacDonell, Prusik J, **Pilitsis JG**. BurstDR™ Stimulation Improves Pain Experience in Patients After Inadequate Relief with Tonic Stimulation. North American Neuromodulation Society (NANS) 21st Annual Meeting. January 11-14, 2018. Las Vegas, Nevada. Poster Presentation.
87. MacDonell, Prusik J, Gillogly M, **Pilitsis JG**. Usage Patterns During Simultaneous Administration of Tonic and Subthreshold wavefronts: A Pilot Study. North American Neuromodulation Society (NANS) 21st Annual Meeting. January 11-14, 2018. Las Vegas, Nevada. Poster Presentation.
88. Hwang R, Ghulam-Jelani Z, Chockalingam A, Kumar V, McCallum SE, Su W, Hobson E, Sukul V, **Pilitsis JG**. The safety of deep brains stimulator lead placement in patients routinely on anticlotting drugs. North American Neuromodulation Society (NANS) 21st Annual Meeting. January 11-14, 2018. Las Vegas, Nevada. Poster Presentation.
89. Kumar V, Prusik J, Lin Y, Hwang R, Feustel P, **Pilitsis JG**. Efficacy of Alternating Conventional Stimulation and High Frequency Stimulation in Improving Spinal Cord Stimulation Outcomes: A Pilot Study. North American Neuromodulation Society (NANS) 21st Annual Meeting. January 11-14, 2018. Las Vegas, Nevada. Poster Presentation.
90. DiMarzio M, Gillogly M, Hancu I, Fiveland E, Rashid T, Joel S, Madhavan R, Prusik J,

Molho E, Durphy J, Hanspal E, **Pilitsis JG**. Use of functional MRI to understand modulation of chronic pain in Parkinson Disease patients with DBS. 2018 AANS Annual Scientific Meeting in New Orleans, LA on April 28-May 2, 2018. E-poster.

91. Kaszuba B, Walling I, Feustel P, Stapleton A, Shin D, **Pilitsis JG**. "Neurosurgery Research Principles and Dynamics: Effects of Subthalamic Deep Brain Stimulation with Gabapentin and Morphine on Mechanical and Thermal Thresholds in 6-Hydroxydopamine Lesioned Rats". 2018 AANS Annual Scientific Meeting in New Orleans, LA on April 28-May 2, 2018. Oral Presentation.
92. Prabhala T, Hellman A, Walling I, Maietta T, Qian J, Clif Burdette C, Frith L, Shao M, Stapleton A, Thibodeau J, **Pilitsis JG**. High Intensity Focused Ultrasound Treatment for Neuropathic Pain Induced by Common Peroneal Nerve Injury. 2018 AANS Annual Scientific Meeting in New Orleans, LA on April 28-May 2, 2018. Oral Presentation.
93. Shao M, Maietta T, Walling I, Kaszuba B, Prabhala T, Stapleton A, Kim N, Shin DS, **Pilitsis JG**. "Subthalamic Nucleus Deep Brain Stimulation Combined with Duloxetine Changes Pain Behavior in Parkinsonian Rats." 2018 AANS Annual Scientific Meeting in New Orleans, LA on April 28-May 2, 2018. Oral Presentation.
94. Gee L, Smith HC, Ghulam-Jelani, Z, Khan H, Prusik J, Feustel PJ, McCallum SE, **Pilitsis, JG**. Spinal cord stimulation for the treatment of chronic pain reduces opioid use and results in superior clinical outcomes when used without opioids. 2018 AANS Annual Scientific Meeting in New Orleans, LA on April 28-May 2, 2018. Oral Presentation.
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96. Gillogly M, Prusik J, Kumar V, MacDonell, Hwang R, **Pilitsis J**. A Pilot study of usage patterns during simultaneous administration of tonic and subthreshold waveforms. American Society for Stereotactic and Functional Neurosurgery 2018 Biennial Meeting. Denver, CO. June 2-5, 2018. Oral Presentation.
97. Telkes I, Paniccioli S, Grey R, Briotte M, McCarty K, **Pilitsis JG**. Effect of Spinal Cord Stimulation on Intraoperatively Recorded EEG in Chronic Pain Patients. 2018 NYC Neuromodulation NANS Summer Series Meeting in New York, NY on August 23-26, 2018. Oral Presentation.
98. Telkes I, Hwang R, Durphy J, Adam O, **Pilitsis JG**. Directional Local Field Potentials Recorded from Ventral Capsule/Ventral Striatum in Obsessive-Compulsive Disorder. 2018 NYC Neuromodulation NANS Summer Series Meeting in New York, NY on August 23-26, 2018. Oral Presentation.
99. Gandomi K, Carvalho P, Fischer G, Nycz C, Patel N, Heffter T, Ghoshal G, Williams E, Burdette C, **Pilitsis JG**. Preclinical Trials of an MRI-guided Robotic Conformal Brain Tumor Ablation System with Real-time Monitoring of Interstitial Therapeutic Ultrasound. Accepted for Presentation. 10th National Image-Guided Therapy Workshop. Boston,

MA. October 7, 2018. Oral Presentation.

100. Wu C, **Pilitsis JG**, Patel N, Lad N, Calodney A, Scowcroft J, Cherry T, Kapural L, Sayed D, Nalamachu S, Kloster D, Kosek P, Province-Azalde, R, Subbaroyan J, Gliner B, Caraway D, Sharan A. Design of a multicenter randomized controlled study comparing clinical- and cost-effectiveness of spinal cord stimulation at 10 kHz to best medical management for treatment of refractory back pain in surgically naïve patients who are not candidates for major lumbar surgery. CNS Annual Meeting. Houston, TX. October 6-10. 2018. Poster Presentation.
101. Hellman A, Maietta M, Prabhala T, Neubauer P, Keller R, Williams E, Burdett C, **Pilitsis JG**. Thermode-Guided External Low Frequency Focused Ultrasound Modulation of Vincristine Induced Neuropathy. CNS Annual Meeting. Houston, TX. October 6-10. 2018. Oral Presentation.
102. MacDonell J, Patel N, Fischer Gs, Burdette EC, Qian J, Chumbalkar V, Ghoshal G, Heffter T, William E, Gounis M, Thibodeau J, Bogdanov G. King RM. Brooks OW, Langan E, Hwang R, **Pilitsis JG**. Robotic Assisted MRI-Guided Interventional Interstitial MR Guided Focused Ultrasound Ablation in a Swine Model. CNS Annual Meeting. Houston, TX. October 6-10. 2018. Oral Presentation
103. Hellman A, Maietta T, Prabhala T, Neubauer P, Keller R, Burdette C, **Pilitsis J**. External low frequency focused ultrasound modulation of dorsal root ganglia. North American Neuromodulation Society (NANS) 22nd Annual Meeting. January 17-20, 2019. Las Vegas, Nevada. Poster Presentation.
104. Shao MM, Gillogly M, Liss A, DiMarzio M, Yeung P, Prusik J, **Pilitsis JG**. Randomized crossover trial comparing burst and tonic spinal cord stimulation: burst stimulation decreases pain catastrophizing. North American Neuromodulation Society (NANS) 22nd Annual Meeting. January 17-20, 2019. Las Vegas, Nevada. Oral Presentation.
105. Telkes I, DiMarzio M, Gillogly M, Rashid T, **Pilitsis JG**. The Role of Parkinson's Disease Motor Symptoms in Selection of Stimulus Parameters. North American Neuromodulation Society (NANS) 22nd Annual Meeting. January 17-20, 2019. Las Vegas, Nevada. Poster Presentation.
106. Rashid T, DiMarzio M, Khazen O, Fiveland E, Joel SE, Madhavan R, Boutet A, Hancu I, Elias G, Lozano A, **Pilitsis JG**. "Resting State Functional Connectivity in Parkinson's Disease Patients Treated with Deep Brain Stimulation. North American Neuromodulation Society (NANS) 22nd Annual Meeting. January 17-20, 2019. Las Vegas, Nevada. Poster Presentation. Oral presentation.
107. DiMarzio M, Rashid T, Hancu I, Fiveland E, Prusik J, Gillogly M, Madhavan R, Joel S, Durphy J, Molho E, Hanspal E, Shin D, **Pilitsis JG**. "Use of functional MRI to understand modulation of chronic pain in Parkinson's disease patients with DBS. North American Neuromodulation Society (NANS) 22nd Annual Meeting. January 17-20, 2019. Las Vegas, Nevada. Poster Presentation. Oral presentation.
108. Grimaudo H, Khazen O, DiMarzio M, Collison C, Chockalingam A, Gee L, Ramirez-Zamora A, Durphy J, Hanspal E, Molho E, Barba A, Shin D, **Pilitsis JG**. The Influence of Deep Brain Stimulation on Urinary Dysfunction in Parkinson's Disease. North

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109. Panse D, Walling I, Gee L, Maietta T, Kaszuba B, Kumar V, Gannon S, Hellman A, Neubauer P, Frith L, Williams E, Ghoshal G, Shin DS, Burdette C, Qian J, **Pilitsis JG**. "The use of focused ultrasound for the treatment of cutaneous allodynia associated with chronic migraine. North American Neuromodulation Society (NANS) 22nd Annual Meeting. January 17-20, 2019. Las Vegas, Nevada. Poster Presentation. Poster presentation.
110. Nalwalk J, Maietta T, Prusik J, **Pilitsis JG**. Effect of Intrathecal Ziconotide on Vincristine-Induced Neuropathy. North American Neuromodulation Society (NANS) 22nd Annual Meeting. January 17-20, 2019. Las Vegas, Nevada. Poster Presentation. Oral presentation.
111. Hwang RS, **Pilitsis JG**. "Evaluating the Role of 1.5 T Quantitative Susceptibility Mapping for Subthalamic Nucleus Deep Brain Stimulation". NANS 22nd Annual Meeting. Las Vegas, NV. January 17-20, 2019.
112. Prabhala T, Sabourin S, DiMarzio M, Gillogly M, Prusik J, **Pilitsis JG**. "Duloxetine Improves Spinal Cord Stimulation Outcomes for Chronic Pain" NANS 22nd Annual Meeting. Las Vegas, NV. January 17-20, 2019. (e-poster)
113. Shao MM, Park YL, Liss A, DiMarzio M, Prusik J, Hobson E, Adam O, Durphy D, Sukul V, Danisi F, **Pilitsis JG**. "Early experience with directional DBS leads in Parkinson's Disease and Essential Tremor patients" NANS 22nd Annual Meeting. Las Vegas, NV. January 17-20, 2019. (e-poster)
114. Hwang R, Filed N, Kumar V, Paniccioli S, Grey R, Briotte M, Sukul V, **Pilitsis J**. "Intraoperative Neuromonitoring in Percutaneous Spinal Cord Stimulator Placement" NANS 22nd Annual Meeting. Las Vegas, NV. January 17-20, 2019. (poster)
115. Rauck R, Thomson S, RELIEF Study Group (**Pilitsis JG**), Woon R, Lechleiter K, Jani R. "A Prospective Global Registry Of Real-World Outcomes Using Spinal Cord Stimulation Systems for Chronic Pain" NANS 22nd Annual Meeting. Las Vegas, NV. January 17-20, 2019. (poster)
116. Sabourin S, DiMarzio M, Alam Y, Bridger C, Hancu M, **Pilitsis JG**. Spinal Cord Stimulation induces Weight Loss in Subset of Obese Patients. 2019 AANS Annual Scientific Meeting in San Diego, CA on April 13-17, 2019. E-Poster.
117. Kumar V, Hwang R, Hancu M, Gillogly M, Prusik J, Sukul V, **Pilitsis JG**. Does Having an Option for Simultaneous Tonic and Sub-threshold Stimulation Improve Spinal Cord Stimulation Outcomes? 2019 AANS Annual Scientific Meeting in San Diego, CA on April 13-17, 2019. E-Poster.
118. Shao MM, Park LP, Liss A, Dimarzio M, Pursik J, Hobson E, Adam O, Durphy J, Sukul V, **Pilitsis JG**. Early experience with directional DBS leads in Parkinson's Disease and Essential Tremor patients. 2019 AANS Annual Scientific Meeting in San Diego, CA on April 13-17, 2019. Oral presentation.

119. Shao MM, Gillogly M, Liss A, DiMarzio M, Yeung P, Prusik J, **Pilitsis JG**. Randomized crossover trial comparing burst and tonic spinal cord stimulation: Burst stimulation decreases pain catastrophizing. 2019 AANS Annual Scientific Meeting in San Diego, CA on April 13-17, 2019. Oral presentation.
120. Hellman A, Maietta T, Nalwalk J, Neubauer P, Byraju H, Shin D, Burdette C, Williams E, **Pilitsis JG**. Sensory nerve action potential recordings in low frequency focused ultrasound modulation of common peroneal nerve injury in vivo. 2019 AANS Annual Scientific Meeting in San Diego, CA on April 13-17, 2019. Oral presentation.
121. DiMarzio M, Rashid T, Hancu I, Fiveland E, Prusik J, Gillogly M, Madhavan R, Joel S, Durphy J, Molho E, Hanspal E, Shin D, **Pilitsis JG**. Functional MRI signature of chronic pain relief from deep brain stimulation in Parkinson's disease patients. 18th Biennial Meeting of the World Society for Stereotactic and Functional Neurosurgery (WSSFN) held in New York, New York; June 24-27, 2019. Oral Presentation.
122. DiMarzio M, Spinrad M, Grinde G, Hancu M, Chang J, Hancu I, Fiveland E, Prusik J, Gillogly M, Slyer J, **Pilitsis JG**. The Validity of a Novel MR-safe Pain Device for the Application of Noxious Pressure Stimulus to the Fingernail Bed for Use in fMRI Pain Studies. 18th Biennial Meeting of the World Society for Stereotactic and Functional Neurosurgery (WSSFN). New York, New York; June 24-27, 2019. Poster Presentation.
123. Telkes I, Gillogly M, Raviv N, **Pilitsis JG**. The Electrophysiological Effects of Longer Pulse Width in Spinal Cord Stimulation. 18th Biennial Meeting of the World Society for Stereotactic and Functional Neurosurgery (WSSFN) held in New York, New York; June 24-27, 2019. Poster Presentation.
124. Telkes I, Sabourin S, Durphy J, Adam O, Raviv N, **Pilitsis JG**. Functional Use of Directional Local Field Potentials in Parkinson's disease. The 2019 Congress of Neurological Surgeons (CNS) Annual Meeting. San Francisco, CA; October 19-23, 2019. Oral presentation.
125. DiMarzio M, Madhavan R, Joel S, Hancu I, Fiveland E, Prusik J, Gillogly M, Rashid T, Ashe J, Telkes I, Feustel P, Shin DS, Durphy J, Hwang R, Hanspal E, **Pilitsis JG**. Use of functional MRI to assess how motor phenotypes of Parkinson's Disease respond to DBS. The 2019 Congress of Neurological Surgeons (CNS) Annual Meeting. Mini podium presentation.
126. Srikanthan A, Maietta T, Hellman A, Patel V, Clum A, Neubauer P, Williams E, Burdette C, Qian J, Mazurkiewicz JE, **Pilitsis JG**. Effects of External Focused Ultrasound on Inflammatory Markers in Neuropathic Pain Caused by Common Peroneal Nerve Injury. The 2019 Congress of Neurological Surgeons (CNS) Annual Meeting. San Francisco, CA; October 19-23, 2019. Oral presentation.
127. **Pilitsis JG**. Magnetic Resonance-guided Focused Ultrasound for Treatment of Pain. The 2019 Congress of Neurological Surgeons (CNS) Annual Meeting. San Francisco, CA; October 19-23, 2019. Oral presentation.
128. **Pilitsis JG**. STN vs GPi for Concern of Cognitive Decline, Depression, and Quality of Life. The 2019 Congress of Neurological Surgeons (CNS) Annual Meeting. San Francisco, CA; October 19-23, 2019. Oral presentation.

129. Sabourin S, Omoruan M, DiMarzio M, Sofatzis T, Staples S, Feustel PJ, Petersen E, Casini G, Spinoza ZT, **Pilitsis JG**. "Diversity in Neuromodulators: Where We Are and where We Need to Go. NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020. Oral presentation.
130. Dinsmoor D, **Pilitsis J**. ECAPs in the Dorsal Columns of Awake vs. Anesthetized Ovines. NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020. Paper poster presentation.
131. Shao MM, Czerwinski M, DiMarzio M, Stan S, Dentinger R, Gillogly M, **Pilitsis JG**. Prospective Study of Low-Dose Ziconotide as a First-Line Intrathecal Drug for Neuropathic Pain. NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020. E-poster.
132. Sheldon B, Bridger C, Dentinger R, Slyer J, **Pilitsis JG**. Risk Factors for spinal cord stimulation: can a family history of psychiatric illnesses worsen outcomes? NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020. Oral presentation.
133. Liss A, Panse D, Hellman A, Maietta T, Byraju K, Paul Neubauer BSE, Burdette C, Ghoshal G, Williams E, **Pilitsis JG**. Low Intensity FUS Increases Duration of Response in Female Common Peroneal Nerve Injury (CPNI) Rats. NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020. Oral presentation.
134. Hellman A, Maietta T, Clum A, Byraju K, Jeannotte E, Raviv N, Ghoshal G, Shin D, Neubauer P, Williams E, Burdette C, Heffter T, Qian J, **Pilitsis JG**. Effects of External Low Intensity Focused Ultrasound in Swine Model of Common Peroneal Nerve Injury. NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020. E-poster.
135. Slyer J, Scott S, Sheldon B, Hancu M, Bridger C, **Pilitsis JG**. Less Pain Relief, More Depression and Female Sex Correlate with SCS Explants. NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020. E-poster.
136. Gandomi KY, Carvalho PAWG, Tarasek M, Fiveland EW, Bhushan C, Neubauer P, Zhao Z, Burdette, EC, **Pilitsis JG**, Yeo D, Nycz CJ, Fischer GS. Development and Validation of a Finite Element Model for In Situ MR-Guided Conformal Ablation using Robotically-Delivered Needle-Based Therapeutic Ultrasound. 11th National Image Guided Therapy Workshop, April 16 –17, 2020, Rockville, MD. [Poster Presentation].
137. Hellman A, Maietta T, Alicia A, Kanakaharini K, Jeannotte E, Raviv N, Staudt M, Shin D, Neubauer P, Williams E, Heffter T, Ghoshal G, Burdette C, Qian J, **Pilitsis J**. Effects of External Low Intensity Focused Ultrasound in a Swine Model of Common Peroneal Nerve Injury. American Association of Neurological Surgeons (AANS), April 25-29, 2020.
138. Sheldon B, DiMarzio M, Khazen O, Williams L, Gillogly M, Thill K, Dellarocca K, Davies L, G **Pilitsis JG**. Effects of Streamlined High Dose and High Frequency Stimulation in SCS to Determine Optimal Settings. American Association of Neurological Surgeons (AANS), April 25-29, 2020. [e-Poster]
139. Khazen O, DiMarzio M, Sukul V, Durphy J, Hanspal E, Molho E, **Pilitsis JG**. Sex

Differences in Parkinson Disease Pain Relief Following DBS. American Association of Neurological Surgeons (AANS), April 25-29, 2020. [e-Poster]

140. Staudt M, Patel S, Platanitis K, DiMarzio M, **Pilitsis J**. Efficacy of Simultaneous Usage of Spinal Cord Stimulation and Intrathecal Therapy for Chronic Pain. American Association of Neurological Surgeons (AANS), April 25-29, 2020. [e-Poster]
141. Bridger C, Prabhala T, Dawson R, Khazen O, MacDonell J, DiMarzio M, De E, Argoff C, **Pilitsis J**. How Common Is Neuromodulation for Chronic Pelvic Pain: A Single Institution Experience With A Collaborative Team". American Society for Stereotactic and Functional Neurosurgery (ASSFN), June 20-23, 2020, Boston, MA. [Oral Presentation].
142. McKinley J, Hancu M, Telkes I, DiMarzio M, Gillogly M, Williams L, Stan S, **Pilitsis JG**, Iannilli E. Spatio-temporal dynamic of pain perception modulated by mindfulness intervention: An EEG study. American Society for Stereotactic and Functional Neurosurgery (ASSFN), June 20-23, 2020, Boston, MA. [Oral Presentation].
143. Campwala Z, Maietta T, Tarasek M, Bhushan C, Fiveland E, Ghoushal G, Heffter T, Gandomi K, Carvalho PA, Nycz C, Jeannotte E, Staudt M, Hellman A, Burdette EC, Fischer G, Yeo D, **Pilitsis J**. 3-D volumetric Magnetic Resonance Thermal Imaging Improves Prediction of Thermal Ablation Zone. American Society for Stereotactic and Functional Neurosurgery (ASSFN), June 20-23, 2020, Boston, MA. [e-poster presentation].
144. Capobianco R, Fahey M, Custozzo A, Chakravarthy K, **Pilitsis J**. Composite score is a better reflection of patient response to chronic pain therapy compared with pain intensity alone. American Society for Stereotactic and Functional Neurosurgery (ASSFN), June 20-23, 2020, Boston, MA. [e-poster presentation]. **Top Pain Poster for ASSFN 2020 Biennial Meeting**
145. McKinley J, Hancu M, Telkes I, DiMarzio M, Gillogly M, Williams L, Stan S, **Pilitsis JG**, Iannilli E. Mindfulness Meditation Modulates EEG-topographies in Induced Pain Perception. American Society for Stereotactic and Functional Neurosurgery (ASSFN), June 20-23, 2020, Boston, MA. [e-poster presentation].
146. Iannilli E, McKinley J, Hancu M, Telkes I, DiMarzio M, Gillogly M, Williams L, Stan S, **Pilitsis JG**. Spatio-temporal dynamic of pain perception modulated by mindfulness intervention: An EEG study. Organization for Human Brain Mapping (OHBM) Annual Meeting in Montreal, Canada, June 26-30. [Poster Presentation]
147. Vesper J, Mir P, Brodsky M, Verhagen L, Groppa S, Alvarez R, Evans A, Blazquez M, Nagel S, Libionka w, **Pilitsis**, Potter-Nerger M, Tse W, Almeida L, Tomycz N, Jimenez-Shahed, Carrilo F, Hartmann C, Groiss SJ, Defresne F, Karst E, Cheeran B, Schnitzler A. On Behalf of PROGRESS Investigators. Directional Deep Brain Stimulation in Subthalamic Nucleus for Parkinson's Disease: Results of a Multicenter, Prospective, Blinded, Crossover Study. 2020 ASSFN virtual meeting, June 28, 2020. [Oral Presentation]
148. Telkes I, McLaughlin B, Chitnis G, Staudt MD, Hadanny A, DiMarzio M, Ogren J, Panicioli S, O'Connor K, Gillogly M, Khazen O, **Pilitsis JG**. Intraoperative Dorsal

Column Mapping Using Novel Spinal Cord Stimulation Paddle, NYC Neuromodulation 2020 Online Conference, P30, December 18-22, 2020. [e-poster presentation]

149. Khazen O, Rosoklija G, Custozzo A, Gillogly M, Bridger C, Elie Hobson E, Feustel P, Lambiase L, DiMarzio M, **Pilitsis J**. Correlation Between Aspects of Perceived Patient Loneliness and SCS Outcomes. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
150. Patel VJ, Maietta T, Hellman A, Zimmerman O, Bao J, Ghoshal G, Neubauer P, Williams E, Burdette C, **Pilitsis JG**. Role of Mechanosensitive Ion Channels in Focused Ultrasound-based Neuromodulation for Pain. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
151. Patel VJ*, Telkes I*, MacDonell J, Zimmerman O, DiMarzio M, Durphy J, **Pilitsis JG**. *Co-first authors. Initial Directional Local Field Potential Signatures of Ventral Capsule/Ventral Striatum in Patients with Obsessive-Compulsive Disorder. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
152. Bao J, Maietta T, Hellman A, Byraju K, Goutam Ghoshal, Neubauer P, Williams E, Burdette C, Patel VJ, Mahoney E, Tucker HR, Shin DS, **Pilitsis JG**. Effect of Low Intensity Pulsed Focused Ultrasound on Neuronal Activity in Pain Processing Regions. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
153. Mahoney E, MacDonell J, Gillogly M, Telkes I, DiMarzio M, Iannilli E, Adam O, Durphy MD, Hanspal E, Molho E, **Pilitsis JG**. The effect of DBS of the Vim on resting EEG and cognition in essential tremor patients. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
154. Campwala Z, Trowbridge R, Tarasek M, Bhushan C, Fiveland E, Ghoushal G, Heffter T, Gandomi K, Carvalho PA, Nycz C, Jeannotte E, Staudt M, Hellman A, Nalwalk. JW, Maietta T, Burdette EC, Fischer G, Yeo D, **Pilitsis J**. Multi-slice 2-D Volumetric Magnetic Resonance Thermal Imaging for Enhanced Thermal Ablation Zone Prediction. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
155. Topp G, Ghulam-Jelani Z, Chockalingam A, Kumar V, Byraju K, Sukul V, **Pilitsis JG**. The Safety of Deep Brain Stimulation Lead Placement on Patients Requiring Anti-clotting. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
156. Sheldon BL, DiMarzio M, Chung SH, Tram J, Khazen O, Staudt M, Bondoc M, **Pilitsis JG**. Outcomes of Spinal Cord Stimulation for Treatment of Chronic Pain based on Iliopsoas Muscle Size. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
157. Williams M, Varelas EN, Sheldon BL, Khazen O, DiMarzio M, **Pilitsis JG**. Can Dogs and Cats Really Help Our Spinal Cord Stimulation Patients? 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
158. Sabourin S, Tram J, Sheldon BL, **Pilitsis JG**. Defining Minimal Clinically Important Difference for Spinal Cord Stimulation Pain and Disability Outcomes. ? 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]

159. Bondoc M, Hancu M, DiMarzio M, Shao MM, Khazen O, **Pilitsis JG**. Age as an Independent Predictor of Spinal Cord Stimulation Outcomes. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
160. Campwala Z, Pallavi Datta P, DiMarzio M, Sukul V, Feustel PJ, **Pilitsis J**. Comparable Spinal Cord Stimulation Outcomes between Patients with and without Previous Spinal Surgery. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
161. Mahoney E, MacDonell J, Gillogly M, Telkes I, Dimarzio M, Iannilli E, Adam O, Durphy J, Hanspal E, Molho E, **Pilitsis JG**. The effect of DBS of the Vim on resting EEG and cognition in essential tremor patients. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
162. Bao J, Khazen O, Gechtman G, Shao MM, DiMarzio M, Topp G, Sukul VV, Staudt MD, **Pilitsis JG**. Management Strategies for Pocket Neuritis in Spinal Cord Stimulation for Chronic Pain Patients. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
163. **Pilitsis JG**, Hageman K, Skerker A, Dinsmoor DA. The Effect of MAC on ECAPs in the Dorsal Columns of Ovines. 2021 NANS Virtual Meeting, January 15-16, 2021. [e-poster presentation]
164. Sheldon BL, Linda Park YL, Hunter J, Sabourin S, DiMarzio M, Khazen O, **Pilitsis JG**. Pain and Interoceptive Awareness Outcomes of Chronic Pain Patients with Spinal Cord Stimulation. 2021 NANS Virtual Meeting, January 15-16, 2021. [Oral Presentation]
165. Hellman A, Clum A, Maietta T, Srikanthan A, P V, Panse D, Zimmerman O, Neubauer P, Williams E, Burdette C, Nalwalk J, **Pilitsis J**. Effects of External Low Intensity Focused Ultrasound on Inflammatory Markers in an Common Peroneal Nerve Injury Model of Neuropathic Pain. 2021 NANS Virtual Meeting, January 15-16, 2021. [Oral Presentation]

INVITED LECTURES

Institutional:

1. Emerging Applications of Deep Brain Stimulation. Dept of Neurology Grand Rounds; Sept 11, 2007
2. Invited Lecturer to Psychiatry Residents Deep Brain Stimulation for Depression; Dec 20, 2007
3. Parkinson's Disease- The Role of Deep Brain Stimulation; Institutional Combined Grand Rounds; January 25, 2008
4. The Science behind Deep Brain Stimulation; Frontiers in Science Program for K-12 Teachers; March 11, 2008
5. Invited Speaker – MD/PhD Annual Retreat; University of Massachusetts Medical School; March 13, 2008
6. Parkinson's Disease-The Role of Deep Brain Stimulation; University of Massachusetts Primary Care Day. March 13, 2008.
7. Deep Brain Stimulation: What Providers need to know.
 - a. Lecture to Neurosurgical Midlevels; Sept 11, 2007

- b. Lecture to OR staff January 9, 2007
- c. Lecture to ICU Midlevels: March 25, 2008
- 8. DBS for psychiatric indications- Dept of Neuropsychiatry; February 4, 2010
- 9. Olfaction as a biomarker in Parkinsons; Department of Psychiatry July 15, 2010
- 10. Neurosurgery for midlevels University of Massachusetts August 5, 2010
- 11. Olfaction as a biomarker in Parkinson's; GSBS University of Massachusetts September 2, 2010
- 12. Psychosurgery: Past, present and future; Department of Psychiatry Grand Rounds September 23, 2010
- 13. Deep Brain Stimulation; Frontiers in Science Program for K-12 Teachers; March 15, 2011
- 14. DBS for OCD- Dept of Neuropsychiatry; University of Massachusetts; March 2011
- 15. Restorative Neurosurgery: Neurosurgery CME event for PCPs, Albany Medical Center, September 12, 2012
- 16. Deep Brain Stimulation Grand Rounds Department of Anesthesia, November 2012
- 17. Stimulation: Neurosurgery CME event for PCPs, Albany Medical Center, October 2013
- 18. What's new in neuromodulation? Grand Rounds Department of Neurology, February 2014
- 19. Whose Pain is it anyway? Neurosurgery CME event for PCPs, Albany Medical Center, October 2014
- 20. Establishing a Paradigm for Translational Research at AMC. Grand Rounds for Department of Psychiatry, Albany Medical Center, October 12, 2016
- 21. Advances in Pain Neuromodulation. Grand Rounds for Department of Medicine, Albany Medical Center, October 27, 2016
- 22. What's New in Neuromodulation in Pain. Grand Rounds for Department of Neurosciences, Albany Medical Center, March 23, 2017
- 23. Psychosurgery: Past, Present and Future. Grand Rounds for Department of Psychiatry, Albany Medical Center, November 1, 2017.
- 24. Effects of external low intensity focused ultrasound in swine model of common peroneal nerve injury. Grand Rounds for Pathology Department, Albany Medical Center, February 12, 2020.

Regional:

- 1. Parkinson's Disease: Information for patients about surgical options; Springfield, MA October 20, 2007
- 2. Low Back Pain: The role of surgery; Harrington Memorial Hospital, Southbridge, MA December 6, 2007
- 3. Low Back Pain: The role of surgery; Marlborough Hospital, Marlborough, MA December 7, 2007
- 4. Parkinson's Disease- The Role of Deep Brain Stimulation Holyoke Medical Center; Holyoke, MA January 8, 2008
- 5. The role of surgery in the treatment of psychiatric disorders. Presentation to MA Health Directors on Psychiatric Disease February 7, 2008
- 6. Parkinson's Disease: Information for patients about surgical options; Heywood Hospital PD Support Group; Gardner, MA February 27, 2008
- 7. Parkinson's Disease- The Role of Deep Brain Stimulation; Neurology Grand Rounds; St. Vincent's Hospital; Worcester, MA February 28, 2008
- 8. Parkinson's Disease- The Role of Deep Brain Stimulation; Grand Rounds; HealthAlliance Hospital; Leominster, MA May 20, 2008

9. Parkinson's Disease- The Role of Deep Brain Stimulation; Grand Rounds; Marlborough Hospital, Marlborough, MA May 20, 2008
10. Parkinson's Disease: Information for patients about surgical options; Springfield PD Support Group; Springfield, MA October 7, 2008
11. Frontiers in PD; UMass PD Support Group; Worcester, MA October 8, 2008
12. Frameless DBS for PD; APDA Annual Educational Event; Sturbridge, MA November 14, 2008
13. Spinal Cord Stimulation for Pain- Grand Rounds; Leominster Hospital, Leominster MA December 8, 2009
14. Deep Brain Stimulation- VNA of Worcester- December 9, 2009
15. Presenter- Deep Brain Stimulation Hanover Wellness Fair- April 14, 2010 Worcester MA
16. Spinal Cord Stimulation for Pain- Grand Rounds; Harrington Hospital, April 15, 2010
17. Blood in the Brain- Grand Rounds; Wing Hospital Palmer, MA May 21, 2010
18. Functional neurosurgery- where we are and where we are going Albany Medical College January 2012
19. Deep Brain Stimulation- Attleboro Support Group- April 13, 2011
20. Deep Brain Stimulation- Saratoga Support Group- January 12, 2012
21. Neurostimulation for pain- Kingston Hospital- May 10, 2012
22. Deep brain stimulation- what to expect; Parkinson's Education Event May 19, 2012
23. Deep brain stimulation- what to expect; Essential Tremor Education Event September 19, 2012
24. Women in Medicine: Perspectives of the Female Physician. April 9, 2013
25. Deep brain stimulation- what's new; Parkinson's Education Event May, 2013
26. Lunch and Learns- Deep brain stimulation- Fall 2013- multiple events
27. Management of low back pain; Parkinson's Education Event April 2014
28. Translational Pain and Neuromodulation. The New York State Pain Society, Annual Meeting. West Harrison, New York. April 1, 2017
29. Deep Brain Stimulation for Parkinson's Disease. The Healthcare Seminar Series for GE. Niskayuna, NY. August 30, 2017
30. Neuromodulation for Neurological Disorders. Summer Course in Adaptive Neurotechnologies. Center for Medical Science. Albany, NY. July 19, 2019.
31. Advances in Deep Brain Stimulation for Parkinson's Disease. Undergraduate Neuroscience Department, Skidmore College, Saratoga Springs, NY, February 13, 2020.
32. How Does the Use of Neuromodulation to Manage Migraine and Other Headache Disorders Enhance Patient Care? Advances in the Multidisciplinary Management of Migraine and Other Headache Disorders. AMC Online Conference, April 21, 2020
33. Neurology with Dr. Julie Pilitsis. WAMC Medical Monday, Albany, New York, November 2, 2020.

National:

1. Spinal Cord Stimulation- AANS/CNS Section on Pain Biennial Symposium; April 25, 2008; Chicago, IL
2. Deep Brain Stimulation for Movement Disorders- 2008 Annual Clinical Assembly of Osteopathic Specialists; Sept 14, 2008, Boca Raton, FL
3. Deep Brain Stimulation for Pain - 2008 Annual Clinical Assembly of Osteopathic Specialists; Sept 14, 2008, Boca Raton, FL
4. Integrated Medical Learning Moderator- AANS/CNS Section on Pain; Organizer of

- Session; Congress of Neurological Surgeons; Sept 23, 2008, Orlando, FL
5. Spinal Cord Stimulation for Failed Back Surgery Syndrome; Congress of Neurological Surgeons Sept 23, 2008, Orlando, FL
 6. Neuromodulation for Residents- American Association of Neurological Surgeons; May 5, 2009; San Diego, CA
 7. Review of the 2009 Pain Literature- Congress of Neurological Surgeons – October 2009; New Orleans LA
 8. Intrathecal Pumps and Complications; AANS/CNS Pain Section Biennial Event April 30,2010; Philadelphia, PA
 9. Moderator- Scientific Session- AANS Philadelphia, PA May 3,2010
 10. Neuromodulation for Residents- American Association of Neurological Surgeons; May 2010; Philadelphia PA
 11. Moderator- Scientific Session- Coding for Pain Procedures; CNS; October 2010 San Francisco, CA
 12. Coding of Intrathecal Pumps- CNS October 2010; San Francisco CA
 13. Neuromodulation for Residents- American Association of Neurological Surgeons; April 2011 Denver, CO
 14. Geriatric Brain Injury American Association of Neurological Surgeons; April 2011 Denver, CO
 15. Medical Student Education Council of State Neurosurgical Societies April 2011 Denver CO
 16. DBS for pain; American Academy of Pain Management; Las Vegas NV September 2011
 17. Course Director- Integrating Pain into your practice CNS Washington DC October 2011;
 18. Moderator- Complications of pain surgery; CNS; Washington DC October 2011
 19. Moderator- General Plenary Session; CNS; Washington, DC; October 2011
 20. What to expect from your Surgery: APDA/NPF young onset annual conference; Providence RI; October 2011.
 21. Spinal Cord Stimulation for Neuromodulation for Residents- American Association of Neurological Surgeons; April 2012 Miami, FL
 22. Geriatric Brain Injury American Association of Neurological Surgeons; April 2012 Miami FL
 23. The role of microelectrode recording- Surgical Management of Parkinson's Disease American Association of Neurological Surgeons; April 2012 Miami FL
 24. Course Director- Integrating Pain into your practice CNS Washington DC October 2012;
 25. Spinal Cord Stimulation for Neuromodulation for Residents- American Association of Neurological Surgeons; April 2013 New Orleans, LA
 26. Geriatric Brain Injury American Association of Neurological Surgeons; April 2013 New Orleans, LA
 27. Complication Avoidance- Surgical Management of Parkinson's Disease American Association of Neurological Surgeons; April 2013 New Orleans, LA
 28. Participant- Webinar- Functional Board Review- CNS- May 2013
 29. Moderator- Neuromodulation Update- CNS San Francisco, October 19, 2013
 30. Spinal Cord Stimulation: Patient Selection- CNS San Francisco, October 20, 2013
 31. Pathophysiology of pain through spinal mechanisms- CNS San Francisco Oct 23, 2013
 32. Blue Water Strategies for practice development- AANS/CNS Section on Pain; San Francisco; April 2014
 33. Intrathecal Pumps- AANS/CNS Section on Pain, San Francisco AANS, April 2014
 34. Anticoagulants and head injury- AANS Practical Course, April 2014
 35. Surgical Management of Parkinson Disease: Patient Selection; San Francisco, April 2014

36. Moderator and Participant- Webinar- Functional Board Review- CNS- May 2014
37. SCS- Awake or Asleep; Invited Lecture; ASSFN Washington, DC June 1, 2014
38. Moderator- Scientific Section- ASSFN Washington, DC June 1, 2014
39. Moderator, Participant CNS Board Review Chicago Aug 8, 2014
40. Starting from Scratch, Practical Course CNS, Boston MA October 2014
41. Troubleshooting and Salvage, Practical Course CNS, Boston MA, October 2014
42. Mentorship, Section on Women in Neurosurgery, CNS, Boston MA, October 2014
43. Moderator- Deep brain stimulation- North American Neuromodulation Society, Las Vegas, December 2014
44. Patient Selection for Cancer pain intervention- North American Neuromodulation Society, Las Vegas, December 2014
45. Blue Water Strategies for practice development- AANS/CNS Section on Pain; AANS, Washington DC; May 2015
46. Anticoagulants and head injury- AANS Practical Course, May 2015; Washington DC
47. Course Director, AANS Practical Course; Integrating Spine into your pain practice, AANS, Washington DC, May 2015
48. Mentorship for Medical Students, AANS, Section on Women in Neurosurgery, AANS, April 2015, Washington DC.
49. Introduction of Osler Lecturer AANS, Washington DC, May 2015
50. Commentary- Petraglia et al: Delays from Pain Diagnosis to SCS Treatment Result in Higher Health-care Use Post-implantation AANS, Washington DC, May 2015
51. Advances in Pain Neuromodulation. West Virginia University Visiting Professor Series; October 18, 2016
52. What's new in neuromodulation for pain. 2017 Richard Lende Meeting Neurosurgery Conference. Snowbird, Utah. February 3, 2017
53. Reimbursement Economics, billing for procedures, financial aspects of starting a practice, network development. American Association of Neurological Surgeons: The AANS/CNS Joint Section on Pain. Chicago, IL. May 20, 2017.
54. A Translational Approach to Neuromodulation. Department of Neurosurgery; Vanderbilt University, Nashville, TN. September 20, 2017
55. Moderator – Surgical Management of Pain and Hemifacial Spasm. 2017 CNS Annual Meeting. Boston, MA. October 8, 2017.
56. Moderator – Parkinson's and Other Movement Disorders. Neurotech Investing and Partnering Conference. Boston, MA. May 2, 2018
57. Surgery for Chronic Pain and Movement Disorders: Building a Practice and Coding. American Society for Stereotactic and Functional Neurosurgery 2018 Biennial Meeting. Denver, CO. June 2, 2018
58. Moderator – Parallel Session on Pain. American Society for Stereotactic and Functional Neurosurgery 2018 Biennial Meeting. Denver, CO. June 5, 2018
59. Diversity in Neurosurgery: Patients and Providers. Neurosurgery Grand Rounds at the Second Annual Carole A. Miller, MD Lectureship and Resident Research Day, The Ohio State University, Columbus, Ohio. July 5, 2018.
60. Head and Facial Pain. 2018 Joint NYC Neuromodulation and NANS Summer Series Conference. New York, New York. August 25, 2018.
61. Alternating Conventional and High Frequency Stimulation Spinal Cord Stimulation Using Accelerometer Technology. 2018 Joint NYC Neuromodulation and NANS Summer Series Conference. New York, New York. August 26, 2018.
62. Deep Brain Stimulation in Neuropsychiatric Disorders. Psychiatry Grand Rounds. Drexel University; College of Medicine. Philadelphia, Pennsylvania. November 28, 2018.
63. Graceful Self Promotion. LDR Leadership Course at the NANS 22nd Annual Meeting.

- Las Vegas, NV. January 17-20, 2019.
64. SCS Device and Patient Selection: Strategies to Improve Long-Term Outcomes. Session: Loss of Efficacy with SCS Treatment: Methods to Avoid and Solutions. NANS 22nd Annual Meeting. Las Vegas, NV. January 17-20, 2019.
 65. Emerging Pain Treatments: Virtual Reality. Session: Pain Practice: The State of the Art. NANS 22nd Annual Meeting. Las Vegas, NV. January 17-20, 2019.
 66. Moderator - Plenary Session 1-Paradigm Shifts in Neuromodulation: Beyond Programming and Frequency. NANS 22nd Annual Meeting. Las Vegas, NV. January 17-20, 2019.
 67. Diversity in Neurosurgery: Patients and Providers. Neurosurgery Grand Rounds. Upstate Medical University. Syracuse, New York. January 30, 2019.
 68. How Can Neuromodulation Be Effectively Incorporated into the Treatment of the Person with Complex Chronic Pelvic Pain. AAPM 2019 35th Annual Meeting. Denver, CO. March 6-10, 2019.
 69. Open Spinal Cord Procedures for Pain. Joint Session on Pain Biennial Meeting. Miami, FL. March 13, 2019.
 70. Epidural Stimulation: High Frequency Versus Traditional. 2019 Spine Summit Meeting. Miami, FL. March 14, 2019.
 71. Case Discussion: Dorsal Root Ganglion Versus Peripheral Nerve Stimulation Versus Epidural Stimulation for CRPS. 2019 Spine Summit Meeting. Miami, FL. March 14, 2019.
 72. MR Guided Applications of High-Intensity Focused Ultrasound for Brain Tumor Ablation. 7th Intraoperative Imaging Society Meeting. Houston, TX. March 15, 2019.
 73. The Team Approach to Opioids. 2019 AANS Annual Scientific Meeting. San Diego, CA. April 13-17, 2019.
 74. Sensory nerve action potential recordings in low frequency focused ultrasound modulation of common peroneal nerve injury in vivo. 2019 AANS Annual Scientific Meeting. San Diego, CA. April 13-17, 2019.
 75. Facial peripheral nerve stimulation (PNS). 18th Biennial Meeting of the World Society for Stereotactic and Functional Neurosurgery (WSSFN). New York, New York; June 24-27, 2019.
 76. Technological advances in chronic pain. HealthyWomen Summit on Chronic Pain in Women. Ellicott City, Maryland; July 17, 2019.
 77. Moderator - Neurosurgery for Pain: Operative Techniques and Case Based Discussions. The 2019 Congress of Neurological Surgeons (CNS) Annual Meeting. San Francisco, CA; October 19-23, 2019.
 78. Diversity in Neurosurgery: Patients and Providers. Neurosurgery Grand Rounds. Yale University. New Haven, Connecticut. December 20, 2019.
 79. Graceful Self Promotion. Professional Development Workshop at the NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020.
 80. Moderator - Plenary Session II: When It's Time to Say No: Patient Selection. NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020.
 81. Identifying the High-Risk Patients: Strategies for Neuromodulators. NANS 23rd Annual Meeting. Las Vegas, NV. January 22-26, 2020.
 82. Peri-Operative Pain Management: Is Narcotic Free America Possible? The Team Approach to Opioids. American Association of Neurological Surgeons (AANS), April 25-29, 2020. [Distance learning e-module].
 83. Chronic pancreatitis patients treated with intrathecal opioids to evaluate long-term pain control. American Association of Neurological Surgeons (AANS), April 25-29, 2020. discussant oral presentation.
 84. Diversity in Neurosurgery: Patients and Providers. Virtual Grand Rounds, Spectrum

- Health, Ann Arbor, MI. May 6, 2020.
85. Improving Safety of Spinal Cord Stimulation Neuromonitoring. Electronic Course for Comprehensive Review of Pain Medicine; Dr. Edgar Ross (Course Director). Audiotaped lecture. June 8, 2020.
 86. Neuromodulation for Central Neuropathic Pain. International Neuromodulation Society (INS) Webinar Series on the Neurostimulation Appropriateness Concensus Committee (NACC): The Right Device for the Right Patient: Case Presentations and Discussions. July 16, 2020
 87. Mechanism of Action of Neuromodulation for Headache/Interventional and Implantable Neuromodulation Treatments. ASPN CME Webinar Series: Understanding Advances in Headache Management. July 29, 2020.
 88. Neuromodulation for pain: Current perspective and what the future holds. Virtual Visiting Professor. CNS Virtual Annual Meeting. August 27, 2020.
 89. Surgical Options in Spinal Stenosis: Why, When, and How Invasive. Virtual Back Pain in 2020: Updates in the Treatment of Spinal Stenosis and Beyond panel. ESRA & ASRA International eCongress. September 19, 2020.
 90. Legends in Neuromodulation panel. Virtual Annual Meeting of the American Society of Pain and Neuromodulation (ASPN). September 19, 2020.
 91. Diversity in Neurosurgery: Patient and Providers and Functional Case Review. Virtual Grand Rounds, University of Michigan, Julian T. Hoff Visiting Professor. October 8, 2020.
 92. APP: Caring for Patients with Neuromodulation during COVID - Spine interventions: matching MRI to symptoms. Advanced Practice Providers and Nurses Series sponsored by NANS Online Education on October 8, 2020.
 93. Getting Control of Your Pain. Facial Pain Association Virtual Conference; Pain Management Section. November 7, 2020.
 94. Graceful Self-Promotion. Women Neurosurgeons Symposium Series: Building and Assessing Your Personal Brand. December 9, 2020.
 95. Moderator – Basic Science and Plenary 2 Sessions.2021 NANS Virtual Meeting, January 15-16, 2021.

International:

1. Deep Brain Stimulation for Chronic Pain; International Neuromodulation Society, Montreal, CA June 2015
2. Deep Brain Stimulation for Obesity; International Neuromodulation Society, Montreal, CA June 2015
3. Neuromodulation for Eating Disorders: Potential Targets and Rationale. International Neuromodulation Society 13th World Congress. Edinburgh, Scotland. May 27-June June, 2017.
4. Psychological evaluations to predict spinal cord stimulation success. 2018 Neuromodulation Society of Australia and New Zealand; 13th Annual Scientific Meeting in Sydney, Australia. April 6-8, 2018.
5. Intracranial Neuromodulation – Fact or fantasy? 2018 Neuromodulation Society of Australia and New Zealand; 13th Annual Scientific Meeting in Sydney, Australia. April 6-8, 2018.

6. Spinal Cord Stimulator Implantation in Asleep Patients: Intraoperative Neuromonitoring. 2018 Neuromodulation Society of Australia and New Zealand; 13th Annual Scientific Meeting in Sydney, Australia. April 6-8, 2018.
7. Moderator- Improving Delivery of Neuromodulation for Pain. International Neuromodulation Society (INS) 14th World Congress on May 25-30, 2019 in Sydney, Australia.
8. Adding Objective Markers to Spinal Cord Stimulation Assessments. International Neuromodulation Society (INS) 14th World Congress on May 25-30, 2019 in Sydney, Australia.
9. 1.5T vs. 3T fMRI bold activation are comparable in measurement of DBS effects. International Neuromodulation Society (INS) 14th World Congress on May 25-30, 2019 in Sydney, Australia.

Updated 1-26-2021