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Education and Training

Education

September 1992 – January 1998 Medical School (MB BS)- Madras Medical College, Chennai, Tamilnadu

Postdoctoral Training

June 1999 - June 2000 Internship, **Internal Medicine**, St. Francis Hospital, Evanston, IL

July 2000 – June 2003 Residency, **Neurology**, Mount Sinai Medical Center, New York, NY

July 2003 – June 2004 Fellowship, **Stroke and Vascular Neurology**, UCLA Medical Center, Los Angeles, CA

July 2004 – June 2005 Fellowship, **Neurological Critical Care**, UCLA Medical Center, Los Angeles, CA

Certification and Licensure

Board Certification

Jan 2005 **Adult Neurology** (American Board of Psychiatry and Neurology), Certification #53018

May 2005 **Vascular Neurology** (American Board of Psychiatry and Neurology), Certification #184

Oct 2021 **Neurocritical Care** (American Board of Psychiatry and Neurology), Certification #89

Sep 2021 **Critical Care Echocardiography (National Board of Echocardiography)**- Diplomate

Certification- other boards and societies

- Dec 2008 **Neurocritical Care (United Council for Neurologic Subspecialties),**
Certification #NCC00385-08, Expires Dec 2018
- Jan 2010 **Neurosonology-** Ultrasound Physics, Transcranial Doppler and Carotid Ultrasound
(**American Society of Neuroimaging**)

Licensure

- Mar 2003 Medical License, State of California, No. A82443, Expires March 31 2025
- Oct 2007 Medical License, State of Michigan, No. 4301091272, Expires Oct 30 2024
- Sep 2003 DEA Registration, No. BR8498695, Expires April 30 2024
- Oct 2007 Controlled Substance License, State of Michigan, No. 5315034007, Expires Oct 30 2024

Academic, Administrative, and Clinical Appointments

Academic Appointments

- 01/2008 - 8/2013 Clinical Assistant Professor in Neurosurgery and Neurology,
University of Michigan, Ann Arbor, MI
- 9/2013 – 9/2019 Clinical Associate Professor in Neurosurgery and Neurology
University of Michigan, Ann Arbor, MI
- 9/2019 – Present Clinical Professor in Neurosurgery and Neurology**
University of Michigan, Ann Arbor, MI

Clinical Appointments

- 03/1998 - 05/1998 Observer in General Surgery, Southern Railway Hospital, Chennai, India
- 07/1998 - 01/1999 Observer in Neurosurgery, VHS hospital, Chennai, India
- 03/1999 - 05/1999 Observer, Critical Care Medicine, Sundaram Medical Foundation, Chennai, India
- 09/2005 - 11/2006 Critical Care and Neurology Consultant, Apollo Hospital, Chennai, India
- 12/2006 - 12/2007 Critical Care and Neurology Consultant, Sundaram Medical Foundation, Chennai
- 01/2008 - Present Neurocritical Care Faculty, University of Michigan, Ann Arbor
- 09/2014 - Present Medical Director of Neurocritical Care, University of Michigan, Ann Arbor
- 07/2016 – Present MPLAN Medical Director, 4D Neurocritical Care Unit
- 04/2017 – Present Co- Director of the Comprehensive Stroke Center at Michigan Medicine

Research Interests

1. Non-invasive assessment of intracranial pressure.
2. Severe Traumatic Brain Injury
3. Subarachnoid hemorrhage
4. Critical care echocardiography and point of care ultrasound.

Grants

Current research support

SubK-NIH-DHHS-US **Rajajee (site PI)** **10/1/2020 – 6/30/2024**
Brain Oxygen Optimization in Severe TBI, Phase 3 (BOOST3)
BOOST3 is a randomized clinical trial to determine the comparative effectiveness of two strategies for monitoring and treating patients with traumatic brain injury (TBI) in the intensive care unit (ICU). The study will determine the safety and efficacy of a strategy guided by treatment goals based on both intracranial pressure (ICP) and brain tissue oxygen (PbtO₂) as compared to a strategy guided by treatment goals based on ICP monitoring alone.
Role: Site-PI Funding: \$45000 study initiation, direct costs TBD

Completed research support

Department of Defense W81XWH-16-DMRDP-CCCRP-PFCRA Tiba (PI) **7/1/2017 – 6/30/2020**
Novel Noninvasive Methods of Intracranial Pressure and Cerebrovascular Autoregulation Assessment: Seeing the Brain through the Eyes
The goal of this study is to use non-invasive ocular electrical bioimpedance methodologies to track dynamic changes in cerebral blood flow (CBF) and associated changes in cerebrovascular autoregulation (CAR).
Role: co-I with effort Funding: \$330,000 direct costs per year

Patient Centered Outcomes Research Institute (PCORI) Rajajee (site PI) **1/1/2018 – 1/1/2021**
Stroke-Related Early Tracheostomy versus Prolonged Orotracheal Intubation in Neurocritical care Trial 2 (SETPOINT 2).
This is an international multicenter randomized controlled clinical trial of early vs late tracheostomy in patients with severe acute cerebrovascular injury.
Role: Site-PI Funding: \$25,000

Massey TBI Grand Challenge 2018 **Kripfgans & Rajajee (PI)** **7/1/2018 – 7/1/2019**
Real-Time, Non-Invasive Brain Metabolism.
Role: co-PI Funding: \$143,666 direct costs per year

SubK-NIH-DHHS-US **Rajajee (site PI)** **1/1/2013 – 1/1/2019**
Stroke Hyperglycemia Insulin Network Effort (SHINE)
Multicenter randomized clinical trial comparing two insulin regimens for the treatment of hyperglycemia following acute ischemic stroke.
Role: Site-PI Funding: \$136,000

NIH R03. PAR-13-390. 14-PAF03991. Rajajee (PI), Krishnan (co-PI) 9/1/2015-6/30/2018

Optic nerve ultrasound in Traumatic Brain Injury.

The goal of this study is to assess the ability of optic nerve sheath diameter measurement to detect intracranial hypertension as confirmed by invasive monitoring and to predict therapeutic intensity level and mortality following severe Traumatic Brain Injury.

Role: PI Funding: \$75,000 direct costs per year

Massey TBI Grand Challenge 2017. Hsu (PI) 6/1/2017 – 5/30/2018

Automated extracranial internal carotid artery ultrasound sensor for traumatic brain injury

The goal is to develop of a wearable noninvasive, continuous, automated ultrasound sensor to accurately measure extracranial ICA flow volume.

Role: co-I Funding: \$115,695 direct costs per year

MICHR CTSA # UL1RR024986 Dehzangi (PI), Rajajee (co-PI) 3/15/2016 - 3/14/2017

Brain Computer Interface to facilitate communication in mechanically ventilated patients in the ICU

The goal of this study is to assess the value of a novel Brain Computer Interface device in facilitating communication in mechanically ventilated ICU patients.

Role: co-PI Funding: \$47,836 direct costs per year

Massey TBI Grand Challenge 2016. Williamson (PI) 6/1/2016 – 5/30/2017

Automated Detection and Measurement of Subdural Hematoma Imaging Characteristics Following Traumatic Brain Injury

The goal of this grant will be to develop computational techniques to automatically identify and measure subdural hematomas and associated imaging features, including midline shift and brain compression.

Role: co-I Funding: \$75,000 direct costs per year

Massey TBI Research Initiative 2015. Rajajee (PI) 2/1/2015 – 2/1/2016

Novel Noninvasive Methods of Intracranial Pressure Assessment: Seeing the Brain Through the Eyes.

This project will use several technologies and computational methodologies to assess intracranial pressure and blood volume using ultrasound and impedance measurements of the eye, with the final goal being to develop new techniques and devices that enhance our ability to rapidly and noninvasively assess intracranial

pressure in the early stages of care for victims of traumatic brain injury (TBI).

Role: PI Funding: \$86,244 direct costs per year

MICHR CTSA #UL1 RR024986 Meurer (PI) 3/15/2011 - 3/14/2012

Adrenergic Blockade After Subarachnoid Hemorrhage

The goal of this study was to assess the feasibility and safety of administration of beta-blockers for mitigation of catecholamine related cardiac injury following subarachnoid hemorrhage.

Role: co-I Funding: \$74,965 direct costs per year

MICHR CTSA #UL1RR024986 Fletcher (PI) 3/15/2012 - 3/14/2013

Peripherally Inserted versus Centrally Inserted Central Venous Catheters in the Neurological Intensive Care.

This was a randomized controlled trial comparing adverse events associated with the use of central venous catheters and peripherally inserted central catheters in the intensive care unit.

Role: co-I Funding: \$50,000 direct costs per year

Honors and Awards

Institutional

- 2002 **Resident Award and Scholarship**- American Neurological Association 127th annual meeting, October 2002, New York, NY,
- 2003 **Resident Award and Scholarship** awarded to one resident per program each year- American Academy of Neurology 55th annual meeting, March-April 2003, Honolulu, HI.
- 2003-2004 **Outstanding Fellow Teaching Award**, UCLA Department of Neurology, for resident education.
- 2008-2009 "Status Pedagogicus" **Outstanding Teacher award** to a faculty member, University of Michigan Department of Neurology for resident teaching
- 2013 Travel grant, selection for **University of Michigan Presidential Delegation to the All India Institute of Medical Sciences** November 11-14, 2013, New Delhi, India

Local

- 1993 Distinction grade in Pharmacology, Tamilnadu Dr. MGR Medical University, India
- 1994 Distinction grade in Ophthalmology, Tamilnadu Dr. MGR Medical University, India

National

- 1992 DBT (Dept. of Biotechnology) Gold Medal and Scholarship, awarded to the top 10 students in India in the Biological Sciences group
- 2013 **Presidential Citation** for contributions to the Neurocritical Care Society 2012-2013
- 2014 **Presidential Citation** for contributions to the Neurocritical Care Society 2013-2014
- 2019 **Top Reviewer** designation for the journal Neurocritical Care 2018-2019.
- 2020 **Top Reviewer** designation for the journal Neurocritical Care 2019-2020.
- 2020 **Fellow of Neurocritical Care Society (FNCS)** designation.
- 2020 **Presidential Citation** for contributions to the Neurocritical Care Society 2019-2020
- 2021 Designated a fellow of the **American College of Critical Care Medicine (ACCM)**
- 2021 **Presidential Citation** for contributions to the Neurocritical Care Society 2020-2021
- 2022 **Presidential Citation** for contributions to the Neurocritical Care Society 2021-2022

Memberships in Professional Societies

1999-2000	Member, American College of Physicians- American Society of Internal Medicine
2001-2005, 2021-present	Member, American Academy of Neurology
2002-2011 2021-present	Member, American Society of Neuroimaging
2003-present	Member, American Heart Association/ American Stroke Association
2004-present	Member, Neurocritical Care Society
2005-Present	Member, Society of Critical Care Medicine
2005-present	Life Member, Indian Society of Critical Care Medicine
2007-present	Life Member, Indian Trauma Anesthesia and Critical Care Society
2015-present	Associate member, American Academy of Neurological Surgeons
2019-present	Member, American Society of Echocardiography
2020-present	Fellow, Neurocritical Care Society (FNCS)
2021-present	Fellow, American College of Critical Care Medicine (FCCM)

Scientific sections, Editorial Positions, Boards, and Peer-Review Service

Study sections/ Advisory panels

2018 – present	Scientific reviewer (ad hoc), National Institute of Health (NIH), ETTN-C(10)(19)- Emerging Technologies and Training in The Neurosciences Integrated Review Group (Study Section); Clinical Neurophysiology, Devices, Neuroprosthetics and Biosensors Small Business Panel.
2020 – present	Scientific reviewer (ad hoc), National Institute of Health (NIH), Secondary Analyses of Existing Datasets in Heart, Lung, and Blood Diseases and Sleep Disorders (R21)

Editorial Positions

2022 – present	Associate editor, Frontiers in Neurology
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Editorial Boards

2011-2014	Editorial Board Member, Case Reports in Neurological Medicine
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- 2014- Editorial board member, eNS (eNeurologicalSciences)
- 2023- Editorial board member, Journal of the American Heart Association

Other Grant application review

- 2016- Stroke Association Project Grant (United Kingdom)

Guideline panels

- 2018 – 2020 Member and Methodologist, Neuroprognostication guidelines in Neurocritical Care. Collaborative guidelines from the Neurocritical Care Society and The German Society for Neuro-Intensive Care and Emergency Medicine (DGNI), to be released 2021.

Journal Reviewer

- 2008 - Journal of Neurology, Neurosurgery and Psychiatry
- 2008 - Journal of Neuroimaging
- 2009 - Journal of Neurological Sciences
- 2009 - Neurolmage
- 2010 - Neurology
- 2011 - Case Reports in Neurological Medicine
- 2011 - Stroke
- 2012 - Indian Journal of Critical Care Medicine
- 2012 - Critical Care
- 2012 - Liver Transplantation
- 2013 - Journal of Critical Care
- 2014 - PLOS ONE
- 2014- Journal of Ultrasound in Medicine
- 2015- Journal of Intensive Care Medicine
- 2015- Childs Nervous System
- 2017- Clinical Otolaryngology

2017- European Journal of Neurology

2018- Neurocritical Care

Invited Grading of Abstracts for:

2010-present Society of Critical Care Medicine Annual Congress

2010-present International Stroke Conference

2012-present Neurocritical Care Society annual meeting

2016-present Scientific Sessions, American Heart Association

Teaching Activities

International

Dissertation Committee

2016 External reviewer, PhD thesis for candidate Renu Rani, Phd student in the department of Neurosurgery, All India Institute of Medical Sciences, New Delhi. Thesis subject "Therapeutic application of bone marrow derived stem cell in complete spinal cord injury".

Institutional

2008 - Present Neurology Housestaff education- didactic lecture series in Neurological Critical Care. University of Michigan.

2008 – Present Anesthesiology and Surgical PGY-1 education- didactic lectures and bedside training in the neuro-intensive care unit at the University of Michigan.

2008 - Present Neurosurgery and Neurology housestaff bedside training- University of Michigan

2010 - Present Neurosurgery housestaff didactic lecture. University of Michigan.

2011 – 2016 Neurocritical Care Fellowship Program Director- University of Michigan.

2012 - Present Surgical Critical Care Core Conference Didactic Lecture series, University of Michigan. Lectures on ICP monitoring and Management and Advanced Neuromonitoring

2012 - Present Pulmonary and Critical Care Core Conference Didactic Lecture series, University of Michigan. Lectures on ICP monitoring and Management and Advanced Neuromonitoring

2017 – Present	Stroke work day education for neuroscience nurses
2018 – Present	Stroke work day education for physical medicine & rehabilitation nurses
2018 – Present	Director of Critical Care Ultrasound Curriculum for all adult critical care trainees- University of Michigan

Committee and Administrative Services

Committee Services

Extramural

2011- 2012	Member, Annual Meeting Committee, Neurocritical Care Society- charged with organizing the 10 th annual Neurocritical Care Society meeting at Denver, Colorado, October 3-6, 2012
2012- 2013	Member, Annual Meeting Committee, Neurocritical Care Society- charged with organizing the 11 th annual Neurocritical Care Society meeting at Philadelphia, PA, October 1-4, 2013
2011- 2015	Member of the Adult Multidisciplinary Critical Care Knowledge Assessment Program (MCKAP) Committee , Society of Critical Care Medicine, charged with writing the in-service Critical Care examination offered by the Society of Critical Care Medicine for all Critical Care trainees
2015 - 2018	Member of the Adult Critical Care Ultrasound Committee, Society of Critical Care Medicine- charged to develop a standardized curriculum and training course to assist clinicians in development of ultrasound skills for adult patients.
2015 – 2019	Member of the Program Accreditation, Physician Certification & Fellowship Training (PACT) Committee, Neurocritical Care Society. The PACT Committee is responsible for creating & promoting ongoing improvement in the training and certification of Neurocritical Care Physicians.
2016 – 2020	Co-chair of the Emergency Neurological Life Support (ENLS) protocol subcommittee for Airway, Ventilation and Sedation, which is responsible for drafting the protocol and manuscript for this topic. The ENLS protocol subcommittee also assists with updating ENLS course exam questions, expanding ENLS usage and monitoring certification eligibility and compliance.
2017 - 2021	Member of the Guidelines Committee, Neurocritical Care Society, this committee determines Neurocritical Care topics suitable for guideline development, identifies key experts in the chosen topic, facilitates the development of 'best practice' clinical management guidelines, and reviews the final document. The committee organizes expert panels to address controversial issues as needed

2018 – 2020	Member-at-large, steering committee, Neuroscience Section of the Society of Critical Care Medicine (SCCM). This is an elected position. This section educates and promotes the interdisciplinary practice of critical care medicine by neurologists, neurosurgeons, neuroanesthesiologists, and other healthcare professionals. The section advises the Society on matters pertaining to neuroscience and supports the research and practice of neuroscience and critical care medicine.
2019 – 2023	Chair-elect (2019-2021) and Chair (2021-2023) of the Guidelines Committee, Neurocritical Care Society, this committee determines Neurocritical Care topics suitable for guideline development, identifies key experts in the chosen topic, facilitates the development of 'best practice' clinical management guidelines, and reviews the final document. The committee organizes expert panels to address controversial issues as needed

Institutional

2010 - present	Critical Care Steering Committee, Member
2010 - 2015	Interdisciplinary Restraint Committee- University of Michigan, Member
2014 - present	MiPART Optimal Inpatient OR scheduling Committee, Committee Lead
2015 – present	Ventilator Associated Event prevention committee, Member
2018 – 2022	Quality and Safety committee, University Hospital and Cardiovascular Center (UH/ CVC), Member
2021 – present	Massey oversight committee, Member. Responsibilities to advise, assist and advocate for TBI programs at the University of Michigan both internally and externally, strategic guidance to program directors, provide final approval for the Joyce Massey TBI Grand Challenge awardees, approve the annual budget, provide insight and recommendations for Massey-funded events including, but not limited to: structure/ programming and keynote speakers.
2023 – present	Physical medicine & rehabilitation (PM&R) chair search committee, Member. Tasked with vetting candidates for the chair of PM&R at the University of Michigan.

Visiting Professorships and Invited Presentations

International

1. “The extended use of percutaneous tracheostomy”- **International Federation of Otolaryngological Societies World Congress, June 3, 2013, Seoul, Korea.**

2. "MR CLEAN, ESCAPE, EXTEND-IA, SWIFT PRIME, REVASCAT and their impact on stroke care". **Neurovision India 2015, July 18, 2015, Chennai, India.**
3. "Improving Door To Needle Time in IV tPA delivery for acute ischemic stroke". **Neurovision India 2015, July 19, 2015, Chennai, India.**
4. "Endovascular therapy of Acute Stroke- Current Trends." **8th Apollo Advanced Critical Care Conference, August 6, 2016, Chennai, India.**
5. "Multimodal neuromonitoring in the ICU." **8th Apollo Advanced Critical Care Conference, August 6, 2016, Chennai, India.**
6. "Invasive neuromonitoring". **14th Apollo Pediatric ICU refresher course (Neuromonitoring and Polytrauma). September 29, 2021. Virtual conference, Chennai, India.**
7. "Guidelines for neuroprognostication in comatose survivors of cardiac arrest". **ANIM annual meeting, January 21, 2022. Virtual conference, Germany.**
8. "Intracranial pressure management in severe traumatic brain injury". **College of anaesthesiologists and intensivists of Sri Lanka. January 23, 2022. Virtual conference, Sri Lanka.**
9. "Intracranial pressure monitoring and management". **Apollo Hospitals Chennai Critical Care Conference, Chennai, India. August 5, 2022.**
10. "Update on neuroprognostication after cardiac arrest". **Indian Society of Critical Care Medicine Chennai branch meeting, Chennai, India. August 16 2022.**
11. "Intracranial Pressure Management- osmotherapy, decompressive craniectomy and autoregulation". **Pediatric Intensive Care refresher course, Chennai, India. August 17 2022.**

National- Extramural Invited Presentations

1. Neurocritical care- recent developments, Indian Society Critical Care Medicine Chennai branch meeting, October, 2005 - invited speaker, Chennai, India

2. Management of Pediatric Status Epilepticus, Kanchi Kamakoti CHILDS Trust Hospital, November, 2005 - invited speaker, Chennai, India
3. Acute Neuromuscular weakness in the ICU, Indian Society Critical Care Medicine annual refresher course, February, 2006 - invited speaker, Chennai, India
4. Brain Attack- should we thrombolize, Indian Society of Critical Care Medicine annual meeting, February, 2006 - invited speaker, Chennai, India.
5. Neurological monitoring in the ICU, Indian Society of Critical Care Medicine annual meeting workshop, February, 2006 - invited speaker, Chennai, India
6. Neuroradiology in the ICU, Indian Society Critical Care Medicine annual refresher course, July, 2006 - invited speaker, Chennai, India.
7. Sleep disorders and stroke, NAPS Nithra Sleep Conference, July, 2006 - invited speaker, Chennai, India
8. Subarachnoid Hemorrhage, Indian Society Critical Care Medicine annual refresher course, July, 2006 - invited speaker, Chennai, India.
9. New reperfusion strategies in acute ischemic stroke, Indian Society of Critical Care Medicine annual meeting, February, 2007 - invited speaker, Kochi, India.
10. Anoxic Brain Injury and Brain Death, Indian Society of Critical Care Medicine refresher course, July, 2007 - invited speaker, Chennai, India.
11. Intracranial Hypertension management, Indian Society of Critical Care Medicine annual refresher course, July, 2007 - invited speaker, Chennai, India.
12. Neuroradiology in the ICU, Indian Society of Critical Care Medicine annual refresher course, July, 2007- invited speaker, Chennai, India
13. New reperfusion strategies in acute ischemic stroke, Indian Society Critical Care Medicine Coimbatore branch meeting, July, 2007 - invited speaker, Coimbatore, India
14. Stroke and Subarachnoid Hemorrhage, Indian Society of Critical Care Medicine refresher course, July, 2007 - invited speaker, Chennai, India.

15. Traumatic Brain Injury and ICP management, Indian Society of Critical Care Medicine Coimbatore branch meeting, July, 2007 - invited speaker, Coimbatore, India.
16. New paradigms in Acute Stroke management- Time is more than money, Sundaram Medical Foundation Forum 2007, September, 2007 - invited speaker, Chennai, India.
17. Tissue perfusion monitoring, Indian Society of Critical Care Medicine Hemodynamic monitoring workshop , September, 2007 - invited speaker, Chennai, India.
18. Traumatic Brain Injury- current developments, International Trauma Anesthesia and Critical Care Society annual meeting, September, 2007 - invited speaker, Coimbatore, India
19. Neurocritical care for the Pulmonary/Critical Care Medicine Physician, University of Michigan's 26th Annual Pulmonary Update Course- October 2013, Ann Arbor, MI
20. Prehospital management of acute brain injury- Update, Survival Flight Conference, November 4, 2014, Frankenmuth, MI.
21. Neurocritical care update for the Pulmonary/Critical Care Medicine Physician, University of Michigan's 29th Annual Pulmonary Critical Care Update Course- November 11 2016, Dearborn, MI
22. Advances in ICU management of Subarachnoid Hemorrhage- International Stroke Conference, Los Angeles, CA- January 24, 2018
23. Optic nerve ultrasound- Society of Critical Care Anesthesiologists annual meeting, Chicago, IL- April 27, 2018
24. Passing the baton in hemodynamic monitoring in Subarachnoid Hemorrhage: from Swan Ganz to bedside ultrasound- International Stroke Conference, Honolulu, HI- February 6 2019
25. Year in review: Neuroscience- Brain Death in 2019- 48th Critical Care Congress, San Diego, CA- February 18, 2019
26. "Brain death in 2020- truly death or social construct?", Wayne State University Department of Neurology Grand Rounds presentation, November 8, 2019
27. "Update on management of delayed cerebral ischemia following subarachnoid hemorrhage"- International Stroke Conference, Los Angeles, CA- February 19, 2020.

28. "Cerebral oximetry in subarachnoid hemorrhage"- Metro Health stroke symposium, Grand Rapids, MI- March 13, 2020.
29. "Invasive intracranial monitoring". Session title- Multimodality monitoring in neurocritical care. Neurocritical Care Society, 18th annual meeting (virtual). September 25, 2020.
30. "Noninvasive ICP monitoring- optic nerve sheath diameter and transcranial doppler". Session title: Neuroimaging fundamentals: A case study approach. American Society of Neuroimaging annual meeting 2021 (virtual). January 30, 2021.
31. "COVID-19 and the brain". Brain Injury Association of Michigan 41st annual fall conference (virtual). September 9, 2021.
32. "Neurocritical Care Society guidelines update". Neurocritical Care Society (NCS) 19th annual meeting, Guidelines Session, Chicago, IL. October 27, 2021
33. "Guidelines for neuroprognostication in comatose survivors of cardiac arrest". Neurocritical Care Society (NCS) 19th annual meeting, Guidelines Session, Chicago, IL. October 27, 2021

Seminars & Workshops

1. **Faculty**, Stroke Prevention in Atrial Fibrillation: Catheter based techniques, Brain Attack symposium 2004, May, 2004, Los Angeles, CA
2. **Director**, *Ultrasound in Critical Care* hands-on workshop, Neurocritical Care Society 10th annual meeting, Denver, Colorado. October 6, 2012.
3. **Faculty**, *The Henry Ford International Point of Care Ultrasound Course*, Henry Ford Health System, September 19-20 2013,
4. **Director**, *Neurocritical Care Ultrasound* hands-on workshop, Neurocritical Care Society 11th annual meeting, Philadelphia, PA, October 2, 2013.
5. **Faculty**, *University of Michigan's 26th Annual Pulmonary Update Course*, University of Michigan, Ann Arbor, October 11, 2013.

6. **Faculty**, *Fundamentals of Critical Care Support (FCCS) Course*, University of Michigan, Ann Arbor, October 6-7, 2014
7. **Director**, *Neurocritical Care Ultrasound* hands-on workshop, Neurocritical Care Society 12th annual meeting, Seattle, WA, September 14, 2014.
8. **Faculty**, *Brain Death Workshop*, Henry Ford Hospital, Detroit, September 16, 2015
9. **Faculty**, *Neurocritical Care Ultrasound* hands-on workshop, Neurocritical Care Society 13th annual meeting, Scottsdale, AZ, October 9, 2015.
10. **Faculty**, *Innovations in bedside procedures- tracheostomy and chest tubes*, Henry Ford Hospital, November 21, 2015
11. **Faculty**, *Percutaneous Tracheostomy and Bronchoscopy workshop*, Neurocritical Care Society 14th annual meeting, National Harbor, MD, September 17, 2016
12. **Faculty**, *Innovations in bedside procedures- tracheostomy and chest tubes*, Henry Ford Hospital, November 30, 2018
13. **Faculty**, *Innovations in bedside procedures- tracheostomy and chest tubes*, Henry Ford Hospital, December 10, 2021

Grand Rounds Presentations

Institutional grand rounds presentations

1. "Advanced neuro-monitoring in the ICU- ICP and beyond." University of Michigan Department of Neurology Grand Rounds presentation, August 20, 2008.
2. "Therapeutic Normothermia in the NeuroICU". University of Michigan Department of Neurology Grand Rounds presentation, December 16, 2009.
3. "Prognostication after severe brain injury- Mathematical Precision or Tea Leaves & Sheep entrails?" University of Michigan Department of Neurology Grand Rounds presentation, August 31, 2011.

4. "Monitoring the neuroICU patient- which way back to the future?" University of Michigan Department of Neurology Grand Rounds presentation, October 16, 2013.
5. "Neuroprognostication after Cardiac Arrest- Time to Ctrl-Alt-Del" University of Michigan Department of Neurology Grand Rounds presentation, September 21, 2016.
6. "Brain Death in 2019- Truly final or just a construct?", University of Michigan Department of Neurology Grand Rounds presentation, July 3, 2019.

Extramural grand rounds presentations

1. "Brain death in 2020- truly death or social construct?", Wayne State University Department of Neurology Grand Rounds presentation, November 8, 2019

Research Activities & Bibliography

Bibliography

Book Chapters

1. Venkatakrishna Rajajee: **Traumatic Brain Injury. Case Studies in Neuroanesthesia and Neurocritical Care**, 1 Edition, George A. Mashour, Ehab Farag. Cambridge University Press, New York, 2011.
2. Venkatakrishna Rajajee: **Brain Death. Case Studies in Neuroanesthesia and Neurocritical Care**, 1 Edition, George A. Mashour, Ehab Farag. Cambridge University Press, New York, 2011.
3. Satwant Samra, Venkatakrishna Rajajee: **Jugular Bulb Monitoring. Neuromonitoring for the Anesthesiologist**, 1 Edition, Koht A, Sloan T, Toleikis R Springer, New York, 2011.
4. Venkatakrishna Rajajee: **Ultrasound in the Neurointensive Care Unit. Ultrasound in the Intensive Care Unit**, 1 Edition, Jankowich M, Gartman E. Springer, New York 2013
5. Venkatakrishna Rajajee: **Airway management in the NeuroICU. Neurointensive Care: A Clinical Guide to Patient Safety**, 1 Edition, Shukri K, Wartenberg K. Springer, New York 2015.

6. Craig A. Williamson, Venkatakrishna Rajajee: **Intracerebral Hemorrhage Prognosis**. 1 Edition, In: Ovbiagele B., Qureshi A. (eds) *Intracerebral Hemorrhage Therapeutics*. Springer, New York, August 2018. https://doi.org/10.1007/978-3-319-77063-5_7.
7. Venkatakrishna Rajajee: **Competence, Proficiency & Training. Comprehensive Critical Care Ultrasound**, 2 edition, Diaz-Gomez JL, Nikravan S, Conlon TW, Society of Critical Care Medicine, Chicago, 2019.

Other Media:

UpToDate:

1. Venkatakrishna Rajajee. **Management of acute moderate and severe traumatic brain injury**. In: **UpToDate**, Aminoff MJ & Moreira ME (Ed), UpToDate, Waltham, MA, 2018. Updated 2021.
2. Craig A. Williamson, Venkatakrishna Rajajee. **Traumatic brain injury: Epidemiology, classification, and pathophysiology**. In: **UpToDate**, Aminoff MJ & Moreira ME (Ed), UpToDate, Waltham, MA, 2018. Updated 2021.

Peer-Reviewed Journals and Publications

1. **Rajajee V**, Brown D, Tuhim S. **Coagulation Abnormalities following Primary Intracerebral Hemorrhage**. *Journal of Stroke and Cerebrovascular diseases*. 2004 Vol. 13, No. 1 (March-April): pp47-51.
2. Ovbiagele B, Saver JL, Fredieu A, Suzuki S, Selco S, **Rajajee V**, McNair N, Razinia T, Kidwell CS. **In-hospital initiation of secondary stroke prevention therapies yields high rates of adherence at follow-up**. *Stroke*. 2004 Dec;35(12):2879-83. Epub 2004 Oct 28.
3. **Rajajee V**, Saver JL. **Prehospital care of the acute stroke patient**. *Techniques of Vascular and Interventional Radiology*, 2005 Jun;8(2):74-80.

4. Ovbiagele B, Kidwell CS, Starkman S, Selco SL, **Rajajee V**, Razinia T, Saver JL. **Angiotensin 2 type 2 receptor activity and ischemic stroke severity.** *Neurology*. 2005 Sep 27;65(6):851-4.
5. Sanossian N, Saver JL, **Rajajee V**, Selco SL, Kim D, Razinia T, Ovbiagele B. **Premorbid antiplatelet use and ischemic stroke outcomes.** *Neurology*. 2005 Dec 28; [Epub ahead of print]
6. Marder VJ, Chute DJ, Starkman S, Abolian AM, Kidwell C, Liebeskind D, Ovbiagele B, Vinuela F, Duckwiler G, Jahan R, Vespa PM, Selco S, **Rajajee V**, Kim D, Sanossian N, Saver JL. **Analysis of thrombi retrieved from cerebral arteries of patients with acute ischemic stroke.** *Stroke*. 2006 Aug;37(8):2086-93. Epub 2006 Jun 22.
7. **Rajajee V**, Kidwell C, Starkman S, Ovbiagele B, Alger JR, Villablanca P, Vinuela F, Duckwiler G, Jahan R, Fredieu A, Suzuki S, Saver JL. **Early MRI and outcomes of patients with mild or improving ischemic stroke.** *Neurology*. 2006 Sep (67); 980-984
8. Kim D, Jahan R, Starkman S, Abolian A, Kidwell CS, Vinuela F, Duckwiler GR, Ovbiagele B, Vespa PM, Selco S, **Rajajee V**, Saver JL. **Endovascular mechanical clot retrieval in a broad ischemic stroke cohort.** *AJNR American Journal of Neuroradiology*. 2006 Nov-Dec;27(10):2048-52.
9. **Rajajee V**, Kidwell C, Starkman S, Ovbiagele B, Fredieu A, Suzuki S, Alger J, Villablanca P, Saver JL. **Diagnosis of Lacunar Infarct within 6 Hours of Onset Compared to Early MRI-DWI & MRA.** *Journal of Neuroimaging*. 2008 Jan;18(1):66-72
10. Khatri P, Taylor RA, Palumbo V, **Rajajee V**, Katz JM, Chalela JA, Geers A, Haymore J, Kolansky DM, Kasner SE. **The Safety and Efficacy of Thrombolysis for Strokes after Cardiac Catheterization.** *Journal of the American College of Cardiology*. 2008 Mar 4;51(9):906-11.
11. **Rajajee V. Management of Traumatic Brain Injury.** *Indian Journal of Trauma Anaesthesia and Critical Care*. 2008 June. Vol. 9, No.2: 738-748. **Invited review.**
12. Bihari S, **Rajajee V.** **Prolonged Retention of Awareness During Cardiopulmonary Resuscitation for Asystolic Cardiac Arrest.** *Neurocritical Care*. 2008;9(3):382-6.
13. **Rajajee V**, Thyagarajan P, Rajagopalan R. **Optic nerve ultrasonography for detection of raised ICP when invasive monitoring is unavailable".** *Neurology India*. 2010 Sep-Oct;58(5):812-3.

14. **Rajajee V**, Fletcher JJ, Rochlen LR, Jacobs TL. **“Real-time ultrasound guided percutaneous dilatational tracheostomy- a feasibility study.** *Critical Care*. 2011 Feb 22;15(1):R67. Published online 2011 Feb 22. doi: 10.1186/cc10047
- Designated **Highly accessed**
 - **Commentary in-** Tremblay LN, Scales DC. “Ultrasound-guided tracheostomy - not for the many, but perhaps the few... or the one.” *Crit Care*. 2011 Apr 6;15(2):147.
15. Fletcher JJ, Brown DL, **Rajajee V**, Jacobs TL, Rochlen L, Meurer W. **The Association Between Proton Pump Inhibitor Use and Outcome After Aneurysmal Subarachnoid Hemorrhage.** *Neurocritical Care*. 2011 Dec;15(3):393-9.
16. **Rajajee V**, Vanaman M, Fletcher JJ, Jacobs TL. **Optic Nerve Ultrasound for the Detection of Raised Intracranial Pressure.** *Neurocritical Care*. 2011 Dec;15(3):506-15.
17. Karamchandani R, **Rajajee V**, Pandey AP. **The role of Neuroimaging in the latent period of blunt traumatic cerebrovascular injury.** *The Open Neuroimaging Journal*. 2011;5:225-31. Epub 2011 Dec 1.
18. **Rajajee V**, Fletcher J, Pandey A, Gemmette J, Chaudhary N, Jacobs T, Thompson BG. **Symptomatic Large Vessel Vasospasm after Aneurysmal Subarachnoid Hemorrhage is Associated with Low Pulsatility Index on Transcranial Doppler.** *Neurosurgery*. 2012 May;70(5):1195-206; discussion 1206.
19. **Rajajee V**, Fletcher JJ, Rochlen LR, Jacobs TL. **Comparison of accuracy of optic nerve ultrasound for the detection of intracranial hypertension in the setting of acutely fluctuating vs stable ICP: post-hoc analysis of data from a prospective, blinded single center study.** *Critical Care*. 2012 May 11;16(3):R79. [Epub ahead of print]
- Designated **Highly accessed**
20. Dubourg J, Messerer M, Karakitsos D, **Rajajee V**, Antonsen E, Javouhey E, Cammarata A, Cotton M, Daniel RT, Denaro C, Douzinis E, Dubost C, Berhouma M, Kassai B, Rabilloud M, Gullo A, Hamlat A, Kouraklis G, Mannanici G, Marill K, Merceron S, Poularas J, Ristagno G, Noble V, Shah

S, Kimberly H, Cammarata G, Moretti R, Geeraerts T. **Individual patient data systematic review and meta-analysis of optic nerve sheath diameter ultrasonography for detecting raised intracranial pressure: protocol of the ONSD research group.** Syst Rev. 2013 Aug 6;2(1):62.

21. Fletcher JJ, **Rajajee V**, Wilson TJ, Zahuranec DB. **Is Early Clinical Evidence of Autonomic Shift Predictive of Infection after Aneurysmal Subarachnoid Hemorrhage.** J Stroke Cerebrovasc Dis. 2014 May-Jun;23(5):1062-8.

22. Fletcher JJ, Meurer W, Dunne M, **Rajajee V**, Jacobs TL, Sheehan KM, Nathan B, Kade AM. **Inter-Observer Agreement on the Diagnosis of Neurocardiogenic Injury Following Aneurysmal Subarachnoid Hemorrhage.** Neurocrit Care. 2014 Apr;20(2):263-9.

23. Mikhaylov Y, Wilson TJ, **Rajajee V**, Gregory Thompson B, Maher CO, Sullivan SE, Jacobs TL, Kocan MJ, Pandey AS. **Efficacy of antibiotic-impregnated external ventricular drains in reducing ventriculostomy-associated infections.** J Clin Neurosci. 2014 May;21(5):765-8.

24. Karamchandani RR, Fletcher JJ, Pandey AS, **Rajajee V**. **Incidence of delayed seizures, delayed cerebral ischemia and poor outcome with the use of levetiracetam versus phenytoin after aneurysmal subarachnoid hemorrhage.** J Clin Neurosci. 2014 Sep;21(9):1507-13.

25. Williamson CA, Sheehan KM, Tipimneni R, Roark CD, Pandey AS, Thompson BG, **Rajajee V**. **The Association Between Spontaneous Hyperventilation, Delayed Cerebral Ischemia, and Poor Neurological Outcome in Patients with Subarachnoid Hemorrhage.** Neurocrit Care. 2015 Dec;23(3):330-8.

26. **Rajajee V**, Williamson CA, West BT. **Impact of real-time ultrasound guidance on complications of percutaneous dilatational tracheostomy: a propensity score analysis.** Crit Care. 2015 Apr 29;19(1):198. doi: 10.1186/s13054-015-0924-7.

- Designated **Highly accessed**

27. Ruknuddeen MI, Ramadoss R, **Rajajee V**, Rajagopalan RE, Grzeskowiak L. **Early Clinical Prediction of Neurological Outcome Following Out of Hospital Cardiac Arrest Managed with Therapeutic Hypothermia.** Indian J Crit Care Med. 2015 Jun;19(6):304-10.

28. Ruknudeen MI, **Rajajee V**, Ramadoss R, Grzeskowiak L, Rajagopalan R. **Clinical characteristics and outcome of patients with status myoclonus following out of hospital cardiac arrest.** Intensive Care Med Exp. 2015 Dec;3(Suppl 1):A198.
29. Williamson CA, Co I, Pandey AS, Thompson BG, **Rajajee V**. **“Accuracy of Daily Lung Ultrasound for the Detection of Pulmonary Edema Following Subarachnoid Hemorrhage”.** Neurocrit Care. 2016 Apr;24(2):189-96.
30. Agarwal D, Raghavendran K, Schaubel D, Misra MC, **Rajajee V**. **A propensity score analysis of the impact of invasive intracranial pressure monitoring on outcomes following severe traumatic brain injury.** J Neurotrauma. 2016 May 1;33(9):853-8.
31. Awori J, **Rajajee V**, Gemmete JJ, Chaudhary N, Thompson BG, Pandey AS. **Posterior reversible encephalopathy syndrome following hemodynamic treatment of aneurysmal subarachnoid hemorrhage-induced vasospasm.** J Clin Neurosci. 2016 Apr;26:33-6.
32. Fletcher JJ, Wilson TJ, **Rajajee V**, Stetler WR Jr, Jacobs TL, Sheehan KM, Brown DL. A **Randomized Trial of Central Venous Catheter Type and Thrombosis in Critically Ill Neurologic Patients.** Neurocrit Care. 2016 Aug;25(1):20-8.
33. Fletcher JJ, Wilson TJ, **Rajajee V**, Davidson SB, Walsh JC. **Changes in Therapeutic Intensity Level Following Airway Pressure Release Ventilation in Severe Traumatic Brain Injury.** J Intensive Care Med. 2018 Mar;33(3):196-202. doi: 10.1177/0885066616669315. Epub 2016 Sep 20.
34. Amorim E, Williamson CA, Moura LMVR, Shafi MM, Gaspard N, Rosenthal ES, Guanci MM, **Rajajee V**, Westover MB. **Performance of spectrogram-based seizure identification of adult EEGs by critical care nurses and neurophysiologists.** J Clin Neurophysiol. 2017 Jul;34(4):359-364. doi: 10.1097/WNP.0000000000000368.
35. Tiba MH, McCracken BM, Ansari S, Belle A, Cummings BC, **Rajajee V**, Patil PG, Alam HB, Ward KR. **Novel Noninvasive Method of Cerebrovascular Blood Volume Assessment Using Brain**

Bioimpedance. J Neurotrauma. 2017 Nov 15;34(22):3089-3096. doi: 10.1089/neu.2017.5090.

Epub 2017 Aug 4.

36. **Rajajee V**, Fontana RJ, Courey AJ, Patil PG. **Protocol based invasive intracranial pressure monitoring in acute liver failure- feasibility, safety and impact on management.** Crit Care. 2017 Jul 11;21(1):178. doi: 10.1186/s13054-017-1762-6.
37. **Rajajee V**, Riggs B, Seder DB. **Emergency Neurological Life Support: Airway, Ventilation, and Sedation.** Neurocrit Care. 2017 Sep;27(Suppl 1):4-28. doi: 10.1007/s12028-017-0451-2.
38. Linzey JR, Williamson CA, **Rajajee V**, Sheehan KM, Thompson BG, Pandey AS. **Twenty-four-hour emergency intervention vs. early intervention in aneurysmal subarachnoid hemorrhage.** J Neurosurg. 2017. 2017 Jul 21:1-7. doi: 10.3171/2017.2.JNS163017. [Epub ahead of print].
39. Franko LR, Sheehan KM, Roark CD, Joseph J, Burke J, **Rajajee V**, Williamson CA. **A Propensity Score Analysis of the Impact of Surgical Intervention on Unexpected 30-Day Readmission Following Admission for Subdural Hematoma.** J Neurosurg 2017 Dec 22:1-9. doi: 10.3171/2017.6.JNS17188. [Epub ahead of print]
40. Dhar R, **Rajajee V**, Caulfield AF, Maas M, James ML, Kumar AB, Figueora S, McDonagh D, Ardelt A. **The State of Neurocritical Care Fellowship Training and Attitudes Toward Accreditation and Certification: A Survey of Neurocritical Care Fellowship Program Directors.** Frontiers in Neurology. 2017. Nov 3;8:548. doi: 10.3389/fneur.2017.00548. eCollection 2017.
41. Mohny N, Williamson CA, Rothman E, Ball R, Sheehan KM, Pandey AS, Fletcher JJ, Jacobs TL, Thompson BG, **Rajajee V.** **A propensity score analysis of the impact of Dexamethasone use on delayed cerebral ischemia and poor functional outcomes following subarachnoid hemorrhage.** World Neurosurg. 2018 Jan;109:e655-e661. doi: 10.1016/j.wneu.2017.10.051. Epub 2017 Oct 20.
42. **Rajajee V.** **Grading scales in Subarachnoid Hemorrhage- many options, but do we have a winner?** Eur J Neurol. 2018 Feb;25(2):207-208. doi: 10.1111/ene.13516. Epub 2017 Dec 11.

- **Invited editorial**

43. Napolitano LM, **Rajajee V**, Gunnerson KJ, Maile MD, Quasney M, Hyzy RC. **Physician Training in Critical Care in the United States: Update 2018.** J Trauma Acute Care Surg. 2018 Jun;84(6):963-971. doi: 10.1097/TA.0000000000001851.
44. Franko LR, Hollon T, Linzey J, Roark C, **Rajajee V**, Sheehan K, Teig M, Hervey-Jumper S, Heth J, Orringer D, Williamson CA. **Clinical Factors Associated With ICU-Specific Care Following Supratentorial Brain Tumor Resection and Validation of a Risk Prediction Score.** Crit Care Med. 2018 Aug;46(8):1302-1308. doi: 10.1097/CCM.0000000000003207.
45. **Rajajee V**, Williamson CA, Courey AJ, Fontana RJ, Patil PG. **Noninvasive intracranial pressure assessment in acute liver failure.** Neurocrit Care. 2018 Oct;29(2):280-290. doi: 10.1007/s12028-018-0540-x.
46. Wabl R, Williamson CA, Pandey AS, **Rajajee V**. **Long-term and delayed functional recovery in patients with severe cerebrovascular and traumatic brain injury requiring tracheostomy.** J Neurosurg. 2018 Jul 6;131(1):114-121. doi: 10.3171/2018.2.JNS173247.
47. **Rajajee V**, Díaz-Gómez JL. **Critical Care Ultrasound Should Be a Priority First-Line Assessment Tool in Neurocritical Care.** Crit Care Med. 2019 Jun;47(6):833-836.
48. **Rajajee V**, Pandey AS, Williamson CA. **Subarachnoid Hemorrhage and Therapy Formerly Known as "Triple-H"-New Directions.** World Neurosurg. 2019 Jul;127:500-501.
49. Fernando SM, Tran A, Cheng W, Rochweg B, Taljaard M, Kyeremanteng K, English SW, Sekhon MS, Griesdale DEG, Dowlatshahi D, McCredie VA, Wijdicks EFM, Almenawer SA, Inaba K, **Rajajee V**, Perry JJ. **Diagnosis of elevated intracranial pressure in critically ill adults: systematic review and meta-analysis.** BMJ. 2019 Jul 24;366:l4225. doi: 10.1136/bmj.l4225.
50. Linzey JR, Nadel JL, Wilkinson DA, **Rajajee V**, Daou BJ, Pandey AS. **Validation of the LACE Index (Length of Stay, Acuity of Admission, Comorbidities, Emergency Department Use) in the Adult Neurosurgical Patient Population.** Neurosurgery. 2020 Jan 1;86(1):E33-E37. doi: 10.1093/neuros/nyz300.

51. Moheet A, Lovett M, Qualls S, **Rajajee V. Emergency Neurological Life Support, Fourth edition: Airway, Ventilation, and Sedation.** Neurocrit Care. 2020 Apr;32(2):636-640. doi: 10.1007/s12028-019-00810-8.
52. Napolitano LM, **Rajajee V. Brain Autopsy Findings in Adult ECMO: Precipitating Event or ECMO Treatment? Need More Data... (Editorial).** Editorial for: "Understanding Characteristics of Acute Brain Injury in Adult ECMO: An Autopsy Study". Crit Care Med. 2020 Jun;48(6):936-937. doi: 10.1097/CCM.0000000000004319.
53. Linzey JR, Foshee RL, Srinivasan S, Fiestan GO, Mossner JM, Gemmete JJ, Burke JF, Sheehan KM, **Rajajee V, Pandey AS. The Predictive Value of the HOSPITAL Score and LACE Index for an Adult Neurosurgical Population: A Prospective Analysis.** World Neurosurg. 2020 May;137:e166-e175. doi: 10.1016/j.wneu.2020.01.117. Epub 2020 Jan 27.
54. Linzey JR, Foshee RL, Fiestan GO, Srinivasan S, Mossner JM, **Rajajee V, Sullivan SE, Thompson BG, Muraszko KM, Pandey AS. Late Surgical Start Time and the Effect on Rates of Complications in a Neurosurgical Population: A Prospective Longitudinal Analysis.** World Neurosurg. 2020 Aug;140:e328-e342. doi: 10.1016/j.wneu.2020.05.081. Epub 2020 May 17.
55. **Rajajee V, Soroushmehr R, Williamson CA, Najarian K, Gryak J, Awad A, Ward KR, Tiba MH. Novel Algorithm for Automated Optic Nerve Sheath Diameter Measurement Using a Clustering Approach.** Military Medicine. 2021 Jan 25;186(Suppl 1):496-501. doi: 10.1093/milmed/usaa231.
56. Pirau L, Ottenhoff L, Williamson CA, Ahmad SN, Wabl R, Nguyen A, Faiver L, **Rajajee V. Case series: Evidence of borderzone ischemia in critically-ill COVID-19 patients who "do not wake up".** Frontiers in Neurology. 2020 Sep 23;11:964. doi: 10.3389/fneur.2020.00964. eCollection 2020.
57. **Rajajee V, Williamson CA. Use of a Novel Negative-Pressure Tent During Bedside Tracheostomy in COVID-19 Patients.** Neurocrit Care. 2020 Oct;33(2):597-603. doi: 10.1007/s12028-020-01068-1. Epub 2020 Aug 7.

58. Agarwal D, Raghavendran K, Schaubel D, Misra MC, **Rajajee V. A prospective study of Optic Nerve Ultrasound for the detection of elevated intracranial pressure in severe Traumatic Brain Injury (ONUS-TBI).** Critical Care Medicine. Dec;48(12):e1278-e1285. doi: 10.1097/CCM.0000000000004689.
59. **Rajajee V**, Soroushmehr R, Williamson CA, Najarian K, Gryak J, Awad A, Ward KR, Tiba MH. **Novel Algorithm for Automated Optic Nerve Sheath Diameter Measurement Using a Clustering Approach.** Mil Med. 2021 Jan 25;186(Suppl 1):496-501.
60. Linzey JR, Foshee R, Moriguchi F, Adapa AR, Koduri S, Kahn EN, Williamson CA, Sheehan K, **Rajajee V**, Thompson BG, Muraszko KM, Pandey AS. **Length of Stay Beyond Medical Readiness in a Neurosurgical Patient Population and Associated Healthcare Costs.** Neurosurgery 2021 Feb 16;88(3):E259-E264. doi: 10.1093/neuros/nyaa535.
61. Daou BJ, Khalsa SSS, Anand SK, Williamson CA, Cutler NS, Aaron BL, Srinivasan S, **Rajajee V**, Sheehan K, Pandey AS. **Volumetric quantification of aneurysmal subarachnoid hemorrhage independently predicts hydrocephalus and seizures.** J Neurosurg 2021 Feb 5;1-9. doi: 10.3171/2020.8.JNS201273. Online ahead of print.
62. DeSoucy ES, Cacic K, Staak BP, Petersen CD, van Wyck D, **Rajajee V**, Dorsch J, Rush SC. **23.4% Hypertonic Saline: A Tactical Option for the Management of Severe Traumatic Brain Injury With Impending or Ongoing Herniation.** J Spec Oper Med. 2021 Summer;21(2):25-28.
63. Faiver L, Hensler D, Rush SC, Kashlan O, Williamson CA, **Rajajee V. Safety and efficacy of 23.4% sodium chloride administered via peripheral venous access for the treatment of cerebral herniation and intracranial pressure elevation.** Neurocrit Care. 2021 Dec;35(3):845-852. doi: 10.1007/s12028-021-01248-7. Epub 2021 Jun 25. PMID: 34173156
64. Farlow JL, Park PK, Sjoding MW, Kay SG, Blank R, Malloy KM, Washer L, Napolitano LM, **Rajajee V**, Brenner MJ, Chinn SB, De Cardenas J. **Tracheostomy for COVID-19 respiratory failure: timing, ventilatory characteristics, and outcomes.** J Thorac Dis. 2021 Jul;13(7):4137-4145. doi: 10.21037/jtd-21-10.

65. **Rajajee V**, Fung CM, Seagly KS, Park PK, Raghavendran K, Machado-Aranda DA, Scott JW, Delano MJ, Abou El Ela ASAA, Haft JW, Williamson CA, McSparron JI, Blank R, Napolitano LM. **One-Year Functional, Cognitive, and Psychological Outcomes Following the Use of Extracorporeal Membrane Oxygenation in Coronavirus Disease 2019: A Prospective Study.** Critical Care Explorations. 2021 Sep 10;3(9):e0537. doi: 10.1097/CCE.0000000000000537. eCollection 2021 Sep.
66. Madden LK, **Rajajee V**, Human T, Wainwright MS, Guanci M, Mainali S, Rowe S, McLaughlin D, Lunde J, Lele A, Fried H. **Neurocritical Care Society Guidelines Update: Lessons from a Decade of GRADE Guidelines.** Neurocritical Care. 2022 Feb;36(1):1-10. doi: 10.1007/s12028-021-01375-1. Epub 2021 Nov 2.
67. Nguyen A, Williamson CA, Pandey AS, Sheehan KM, **Rajajee V.** **Screening CT angiography to identify patients at low risk for delayed cerebral ischemia following subarachnoid hemorrhage.** Frontiers in Neurology. 2021 Nov 12;12:740241. doi: 10.3389/fneur.2021.740241. eCollection 2021.
68. Williamson CA, Faiver L, Nguyen AM, Ottenhoff L, **Rajajee V.** **Incidence, Predictors and Outcomes of Delirium in Critically Ill Patients With COVID-19.** Neurohospitalist. 2022 Jan;12(1):31-37. doi: 10.1177/19418744211034815. Epub 2021 Aug 24. PMID: 34950384
69. Nguyen AM, Decker JA, Dupuis JE, Little AA, Ottenhoff LD, **Rajajee V**, Sheehan KM, Williamson CA. **A 57 Year-Old Man With HIV Presenting With Severe Headache and Progressive Weakness.** Neurohospitalist. 2022 Jan;12(1):171-176. doi: 10.1177/1941874420980630. Epub 2021 Jan 20. PMID: 34950409.
70. Bösel J, Niesen WD, Salih F, Morris NA, Ragland JT, Gough B, Schneider H, Neumann JO, Hwang DY, Kantamneni P, James ML, Freeman WD, **Rajajee V**, Rao CV, Nair D, Benner L, Meis J, Klose C, Kieser M, Suarez JI, Schönenberger S, Seder DB; SETPOINT2 and the IGNITE Study Groups. **Effect of Early vs Standard Approach to Tracheostomy on Functional Outcome at 6 Months Among Patients With Severe Stroke Receiving Mechanical Ventilation: The SETPOINT2**

Randomized Clinical Trial. JAMA. 2022 May 17;327(19):1899-1909. doi:

10.1001/jama.2022.4798. PMID: 35506515.

71. Standiford TC, Farlow JL, Brenner MJ, Blank R, **Rajajee V**, Baldwin NR, Chinn SB, Cusac JA, De Cardenas J, Malloy KM, McDonough KL, Napolitano LM, Sjoding MW, Stoneman EK, Washer LL, Park PK. **COVID-19 Transmission to Health Care Personnel During Tracheostomy Under a Multidisciplinary Safety Protocol.** Am J Crit Care. 2022 Nov 1;31(6):452-460. doi: 10.4037/ajcc2022538. PMID: 35953441.
72. **Rajajee V**, Muehlschlegel S, Wartenberg KE, Alexander SA, Busl KM, Chou SHY, Creutzfeldt CJ, Fontaine GV, Fried H, Hocker SE, Hwang DY, Kim KS, Madzar D, Mahanes D, Mainali S, Meixensberger J, Montellano F, Sakowitz OW, Weimar C, Westermaier T, Varelas PN. **Guidelines for Neuroprognostication in Comatose Adult Survivors of Cardiac Arrest.** Neurocrit Care. 2023 Mar 22. doi: 10.1007/s12028-023-01688-3. Online ahead of print. PMID: 36949360
73. Busl KM, Fried H, Muehlschlegel S, Wartenberg KE, **Rajajee V**, Alexander SA, Creutzfeldt CJ, Fontaine GV, Hocker SE, Hwang DY, Kim KS, Madzar D, Mahanes D, Mainali S, Meixensberger J, Sakowitz OW, Varelas PN, Westermaier T, Weimar C. **Guidelines for Neuroprognostication in Adults with Guillain-Barré Syndrome.** Neurocrit Care. 2023 Mar 25. doi: 10.1007/s12028-023-01707-3. Online ahead of print. PMID: 36964442

Co-investigator in published clinical trials and multi-center studies

1. Smith WS, Sung G, Saver J, Budzik R, Duckwiler G, Liebeskind DS, Lutsep HL, Rymer MM, Higashida RT, Starkman S, Gobin YP; Multi MERCI Investigators. **Mechanical thrombectomy for acute ischemic stroke: final results of the Multi MERCI trial.** Stroke. 2008 Apr;39(4):1205-12. Epub 2008 Feb 28.
2. Pancioli AM, Broderick J, Brott T, Tomsick T, Khoury J, Bean J, del Zoppo G, Kleindorfer D, Woo D, Khatri P, Castaldo J, Frey J, Gebel J Jr, Kasner S, Kidwell C, Kwiatkowski T, Libman R, Mackenzie

- R, Scott P, Starkman S, Thurman RJ; CLEAR Trial Investigators. **The combined approach to lysis utilizing eptifibatide and rt-PA in acute ischemic stroke: the CLEAR stroke trial.** Stroke. 2008 Dec;39(12):3268-76. Epub 2008 Sep 4.
3. Haley EC Jr, Thompson JL, Grotta JC, Lyden PD, Hemmen TG, Brown DL, Fanale C, Libman R, Kwiatkowski TG, Llinas RH, Levine SR, Johnston KC, Buchsbaum R, Levy G, Levin B; **Tenecteplase in Stroke Investigators. Phase IIB/III trial of tenecteplase in acute ischemic stroke: results of a prematurely terminated randomized clinical trial.** Stroke. 2010 Apr;41(4):707-11. Epub 2010 Feb 25.
 4. Shi ZS, Loh Y, Walker G, Duckwiler GR; MERCI and Multi-MERCI Investigators. **Clinical outcomes in middle cerebral artery trunk occlusions versus secondary division occlusions after mechanical thrombectomy: pooled analysis of the Mechanical Embolus Removal in Cerebral Ischemia (MERCI) and Multi MERCI trials.** Stroke. 2010 May;41(5):953-60. Epub 2010 Apr 8.
 5. Shi ZS, Loh Y, Walker G, Duckwiler GR; **MERCI and Multi MERCI Investigators. Endovascular thrombectomy for acute ischemic stroke in failed intravenous tissue plasminogen activator versus non-intravenous tissue plasminogen activator patients: revascularization and outcomes stratified by the site of arterial occlusions.** Stroke. 2010 Jun;41(6):1185-92. Epub 2010 Apr 29.
 6. Kidwell CS, Jahan R, Gornbein J, Alger JR, Nenov V, Ajani Z, Feng L, Meyer BC, Olson S, Schwamm LH, Yoo AJ, Marshall RS, Meyers PM, Yavagal DR, Wintermark M, Guzy J, Starkman S, Saver JL; **MR RESCUE Investigators. A trial of imaging selection and endovascular treatment for ischemic stroke.** N Engl J Med. 2013 Mar 7;368(10):914-23. doi: 10.1056/NEJMoa1212793. Epub 2013 Feb 8.
 7. Saver JL, Carroll JD, Thaler DE, Smalling RW, MacDonald LA, Marks DS, Tirschwell DL; **RESPECT Investigators. Long-Term Outcomes of Patent Foramen Ovale Closure or Medical**

Therapy after Stroke. N Engl J Med. 2017 Sep 14;377(11):1022-1032. doi:10.1056/NEJMoA1610057.

8. Carroll JD, Saver JL, Thaler DE, Smalling RW, Berry S, MacDonald LA, Marks DS, Tirschwell DL; **RESPECT** Investigators. **Closure of patent foramen ovale versus medical therapy after cryptogenic stroke.** N Engl J Med. 2013 Mar 21;368(12):1092-100. doi:10.1056/NEJMoA1301440.
9. Hanley DF, Thompson RE, Rosenblum M, Yenokyan G, Lane K, McBee N, Mayo SW, Bistran-Hall AJ, Gandhi D, Mould WA, Ullman N, Ali H, Carhuapoma JR, Kase CS, Lees KR, Dawson J, Wilson A, Betz JF, Sugar EA, Hao Y, Avadhani R, Caron JL, Harrigan MR, Carlson AP, Bulters D, LeDoux D, Huang J, Cobb C, Gupta G, Kitagawa R, Chicoine MR, Patel H, Dodd R, Camarata PJ, Wolfe S, Stadnik A, Money PL, Mitchell P, Sarabia R, Harnof S, Barzo P, Unterberg A, Teitelbaum JS, Wang W, Anderson CS, Mendelow AD, Gregson B, Janis S, Vespa P, Ziai W, Zuccarello M, Awad IA; **MISTIE III** Investigators. **Efficacy and safety of minimally invasive surgery with thrombolysis in intracerebral haemorrhage evacuation (MISTIE III): a randomised, controlled, open-label, blinded endpoint phase 3 trial.** Lancet. 2019 Mar 9;393(10175):1021-1032. doi: 10.1016/S0140-6736(19)30195-3. Epub 2019 Feb 7. Erratum in: Lancet. 2019 Apr 20;393(10181):1596.
10. Suarez JL, Martin RH, Bauza C, Georgiadis A, Venkatasubba Rao CP, Calvillo E, Hemphill JC 3rd, Sung G, Oddo M, Taccone FS, LeRoux PD; **PRINCE** Study Investigators. **Worldwide Organization of Neurocritical Care: Results from the PRINCE Study Part 1.** Neurocrit Care. 2019 Jun 7. doi: 10.1007/s12028-019-00750-3. [Epub ahead of print]
11. Johnston KC, Bruno A, Pauls Q, Hall CE, Barrett KM, Barsan W, Fansler A, Van de Bruinhorst K, Janis S, Durkalski-Mauldin VL; Neurological Emergencies Treatment Trials Network and the **SHINE** Trial Investigators. **Intensive vs Standard Treatment of Hyperglycemia and Functional Outcome in Patients With Acute Ischemic Stroke: The SHINE Randomized Clinical Trial.** JAMA. 2019 Jul 23;322(4):326-335. doi: 10.1001/jama.2019.9346.

12. Venkatasubba Rao CP, Suarez JI, Martin RH, Bauza C, Georgiadis A, Calvillo E, Hemphill JC 3rd, Sung G, Oddo M, Taccone FS, LeRoux PD; **PRINCE Study Investigators. Global Survey of Outcomes of Neurocritical Care Patients: Analysis of the PRINCE Study Part 2.** Neurocrit Care. 2019 Sep 4. doi: 10.1007/s12028-019-00835-z. [Epub ahead of print]

13. Venkatasubramanian C, Lopez GA, O'Phelan KH; **ENLS Writing Group. Emergency Neurological Life Support: Fourth Edition, Updates in the Approach to Early Management of a Neurological Emergency.** Neurocrit Care. 2019 Sep 23. doi: 10.1007/s12028-019-00810-8. [Epub ahead of print] No abstract available.

14. Askenase MH, Goods BA, Beatty HE, Steinschneider AF, Velazquez SE, Osherov A, Landreneau MJ, Carroll SL, Tran TB, Avram VS, Drake RS, Gatter GJ, Massey JA, Karuppagounder SS, Ratan RR, Matouk CC, Sheth KN, Ziai WC, Parry-Jones AR, Awad IA, Zuccarello M, Thompson RE, Dawson J, Hanley DF, Love JC, Shalek AK, Sansing LH; MISTIE III Consortium; ICHseq investigators; ICHseq Investigators **MISTIE III Investigators. Longitudinal transcriptomics define the stages of myeloid activation in the living human brain after intracerebral hemorrhage.** Sci Immunol. 2021 Feb 19;6(56):eabd6279. doi: 10.1126/sciimmunol.abd6279. Epub 2021 Feb 19.

15. Lele AV, Wahlster S, Alunpipachathai B, Awaris Gebrewold M, Chou SH, Crabtree G, English S, Der-Nigoghossian C, Gagnon DJ, Kim-Tenser M, Karanjia N, Kirkman MA, Lamperti M, Livesay SL, Mejia-Mantilla J, Melmed K, Prabhakar H, Tumino L, Venkatasubba Rao CP, Udy AA, Videtta W, Moheet AM; NCC-COVID Study Collaborators. **Perceptions Regarding the SARS-CoV-2 Pandemic's Impact on Neurocritical Care Delivery: Results From a Global Survey.** J Neurosurg Anesthesiol. 2022 Apr 1;34(2):209-220. doi: 10.1097/ANA.0000000000000825. PMID: 34882104.

Selected Presentations of Original Research at Conferences

Platform presentations

1. Janardhan V, Riina H, **Rajajee V**, Stieg PE. **Prevalence of Incidental Intracranial Aneurysms in patients with Extracranial Carotid artery disease: A Systematic Review.** J Neurosurg 2003;98(1):A254. Platform presentation at the 2003 Joint Annual Meeting of the **AANS/CNS section on Cerebrovascular Surgery** and the **ASITN**, Feb. 15-19, 2003, Phoenix, AZ.
2. **Rajajee V**, Brown D, Tuhim S. **Coagulation Abnormalities following Primary Intracerebral Hemorrhage.** Platform presentation at the **55th Annual meeting of the American Academy of Neurology**, April 2, 2003, Honolulu, HI.
3. **Rajajee V**, Fletcher JJ, Rochlen LR, Jacobs TL. **Optic nerve sheath distension is less predictive of intracranial hypertension when intracranial pressure is acutely fluctuating. Platform Presentation.** Society of Critical Care Medicine 41st Critical Care Congress, February 5, 2012, Houston, TX.
4. Agarwal D, **Rajajee V**, Schaubel D, Misra MC, Raghavendran K. **A propensity score based analysis of the impact of Decompressive Craniectomy on TBI in India.** Oral Presentation, 10th Annual Academic Surgical Congress, Las Vegas, February 4, 2015.
5. Agarwal D, Schaubel D, Misra MC, Pandey AS, Raghavendran K, **Rajajee V.** **Impact of Invasive Intracranial Pressure Monitoring on Outcomes following Severe Traumatic Brain Injury.** Oral Presentation, 83rd AANS Annual Scientific Meeting, Washington D.C., May 6 2015.
6. Agarwal D, Raghavendran K, Schaubel D, Misra MC, **Rajajee V.** **Propensity Score Analysis of the Impact of Decompressive Craniectomy on Outcomes Following Traumatic Brain Injury.** Oral Presentation, 84th AANS Annual Scientific Meeting, Chicago, May 2 2016.
7. Franko K, Sheehan KM, **Rajajee V**, Williamson CA. **Subdural hematoma patient characteristics associated with unexpected 30-day readmission.** Oral Presentation, Neurocritical Care Society 14th annual meeting, National Harbor, MD, September 16 2016.

Selected poster presentations

1. Janardhan V, **Rajajee V**, Torbey MT. **Predictors of Morbidity and Mortality in patients with Non-traumatic Cerebellar Hemorrhages: A Systematic Review**. Poster presentation at the 2003 Joint Annual Meeting of the **AANS/CNS section on Cerebrovascular Surgery** and the **ASITN**, Feb. 15-19, 2003, Phoenix, AZ.
2. **Rajajee V**, Kidwell C, Starkman S, Ovbiagele B, Fredieu A, Suzuki S, Alger J, Villablanca P, Saver JL. **Accuracy of Clinical Diagnosis of Lacunar Infarct within 6 Hours of Onset Compared to Early MRI-DWI & MRA**. Poster presentation at the **29th International Stroke Conference**, February 5th-7th 2004, San Diego, CA.
3. **Rajajee V**, Kidwell C, Starkman S, Ovbiagele B, Alger J, Villablanca P, Vinuela F, Duckwiler G, Jahan R, Fredieu A, Suzuki S and Saver JL. **Outcome of patients with ischemic stroke excluded from acute IV and IA reperfusion therapy because of mild or improving symptoms**. Poster presentation at the 56th Annual meeting of the **American Academy of Neurology**, May 1, 2004, San Francisco, CA.
4. **Rajajee V**, Vespa P, Duckwiler G, Jahan R, Frazee J, Saver JL. **Benefit from coiling in the ISAT trial: re-analysis of the Number Needed to Treat**. Poster presentation at the 130th annual meeting of the **American Neurological Association**, September 2005, San Diego, CA.
5. Khatri P, **Rajajee V**, Taylor R, Katz J, Haymore J Chalela J, Geers A, Segal A, Kolansky D, Kasner S. Treatment of Acute Stroke after Cardiac Catheterization (TASCC) Study Group. **Thrombolysis for Strokes after Cardiac Catheterization**. Poster presentation at the **30th International Stroke Conference**, February 2005, New Orleans, Louisiana.
6. **Rajajee V**, Thyagarajan P, Rajagopalan RE. **Optic Nerve Ultrasonography for Intracranial Pressure estimation when invasive monitoring is unavailable- initial experience**. Poster presentation at the 6th Annual Neurocritical Care Society Meeting, October 23, 2008, Miami, FL.
7. **Rajajee V**, Vanaman M, Fletcher J, Jacobs T. **Optic Nerve Ultrasonography is an accurate non-invasive bedside tool to detect raised ICP in the neuroICU; institutional validation of criteria**

may be required. Poster presentation, 8th Annual Neurocritical Care Society Meeting, September 15-18, 2010, San Francisco, CA.

8. **Rajajee V**, Fletcher J, Rochlen L, Jacobs T. **Feasibility of real-time ultrasound guided percutaneous tracheostomy.** Poster presentation, Society of Critical Care Medicine 40th Critical Care Congress, January 15-19, 2011, San Diego, CA.
9. **Rajajee V**, Fletcher J, Pandey A, Gemmette J, Chaudhary N, Jacobs T, Thompson BG. **Symptomatic Large Vessel Vasospasm after Aneurysmal Subarachnoid Hemorrhage is Associated with Low Pulsatility Index on Transcranial Doppler.** Poster presentation, International Stroke Conference, February 9-11, 2011, Los Angeles, CA.
10. Karamchandani R, **Rajajee V**, Fletcher JJ. **Choice Of Anticonvulsant Prophylaxis And Risk Of Delayed Seizures, Delayed Cerebral Ischemia, And Poor Outcome After Aneurysmal Subarachnoid Hemorrhage.** Poster presentation, Neurocritical Care Society 9th annual meeting, September 22, 2011, Montreal, Quebec, Canada.
11. Haque A, **Rajajee V**, Fletcher JJ. **Percutaneous Tracheostomy in patients with Cervical Spine Immobilization.** Poster presentation, Neurocritical Care Society 10th annual meeting, October 5, 2012, Denver, CO.
12. **Rajajee V**, Patil PG, Fontana R, Courey A. **Protocol based invasive intracranial pressure monitoring in acute liver failure- prospective case series.** Poster presentation, Society of Critical Care Medicine 42nd Critical Care Congress, January 20, 2013, San Juan, Puerto Rico.
13. **Rajajee V**, Fletcher JJ, Sheehan KM, Jacobs TL, Pandey AS. **Long term functional recovery in patients with severe brain injury requiring tracheostomy.** Poster presentation, Neurocritical Care Society 11th annual meeting, October 3, 2013, Philadelphia, PA.
14. **Rajajee V**, Fletcher JJ, Sheehan KM, Jacobs TL. **Real time ultrasound guidance decreases complications of percutaneous tracheostomy.** Poster presentation, Society of Critical Care Medicine 43rd Critical Care Congress, January 10, 2014, San Francisco, CA.

15. **Rajajee V**, Williamson CA, Pandey AS. **Accuracy of screening lung ultrasound for the detection of pulmonary edema following subarachnoid hemorrhage**. Poster presentation, Neurocritical Care Society 12th annual meeting, September 11, 2014, Seattle, WA.
16. Mohney N, **Rajajee V**, Burghardt D, Sheehan KM, Fletcher JJ, Pandey AS, Thompson BG, Jacobs TL, Williamson. **Propensity Score Analysis of the Impact of Corticosteroid Use on Delayed Cerebral Ischemia and Poor Functional Outcomes following Subarachnoid Hemorrhage**. Poster presentation, Neurocritical Care Society 14th annual meeting, National Harbor, MD, September 16 2016.
17. Shah T, **Rajajee V**, Williamson CA, Sheehan KM. **Delay in Presentation to Medical Care and Outcomes Following Nontraumatic Subarachnoid Hemorrhage**. Poster presentation, Neurocritical Care Society 14th annual meeting, National Harbor, MD, September 16 2016.
18. **Rajajee V**, Fontana RJ, Courey AJ, Williamson CA, Patil PG. **Optic nerve ultrasound in acute liver failure**. Poster presentation, Neurocritical Care Society 15th annual meeting, Big Island, HI. October 2017.
19. **Rajajee V**, Soroushmehr R, Cummings BC, Tiba MH, Ward KR, Williamson CA, Najarian K. **Image-analysis algorithm for measurement of Optic Nerve Sheath Diameter from ocular ultrasound videos**. Poster presentation, Neurocritical Care Society 15th annual meeting, Big Island, HI. October 2017.
20. Wabl R, Williamson CA, Sheehan KM, Pandey AS, **Rajajee V**. **Anticoagulation within 24 hours of IV alteplase for ischemic stroke: implications of a guideline change**. Poster presentation, Neurocritical Care Society 16th annual meeting, Boca Raton, FL. September 2018.
21. Morgan L, Williamson CA, Sheehan KM, Ball RM, **Rajajee V**. **Subsequent Post-Bleed Day Subarachnoid Hemorrhage Grading Does Not Better Predict Outcomes**. Poster presentation, Neurocritical Care Society 16th annual meeting, Boca Raton, FL. September 2018.
22. Soroushmehr SMR, **Rajajee V**, Williamson CA, Gryak J, Najarian K, Ward K, Tiba MH. **Automated Optic Nerve Sheath Diameter Measurement Using Super-Pixel Analysis**. Poster presentation.

41st Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), Berlin, Germany , July 25, 2019.

23. Ahmad S, Williamson CA, Gelb DJ, Jacobs TL, Sheehan KM, **Rajajee V. Feasibility of apnea testing on conventional mechanical ventilation during brain death evaluation.** Poster presentation, Neurocritical Care Society 17th annual meeting, Vancouver, BC, Canada. November 2019.
24. Jiang C, Cao J, Williamson CA, **Rajajee V**, Gryak J, Najarian K, Soroushmehr R. **Midline Shift vs Mid-Surface Shift: Correlation with Outcome of Traumatic Brain Injuries.** Short paper, 2019 IEEE International Conference on Bioinformatics and Biomedicine (IEEE BIBM 2019), San Diego, CA, November 18-21, 2019.
25. Nguyen A, Williamson CA, Pandey AS, Sheehan KM, **Rajajee V. Screening CT angiography to identify patients at low risk for delayed cerebral ischemia following subarachnoid hemorrhage.** Poster presentation, International Stroke Conference, Los Angeles, CA, February 18-20, 2020.
26. Pirau L, Ottenhoff L, Williamson CA, Ahmad SN, Wabl R, Nguyen A, Faiver L, **Rajajee V. “Not waking up” after severe COVID-19 infection- clinical and radiological features.** Poster presentation, Neurocritical Care Society 18th annual meeting. September 24-25 2020.
27. Muhlestein W, Ottenhoff L, Ahmad SN, **Rajajee V**, Sheehan KM, Williamson CA. **Critical illness neuromyopathy mimicking Guillain-Barre syndrome in patients with COVID-19.** Poster presentation, Neurocritical Care Society 18th annual meeting. September 24-25 2020.
28. **Rajajee V**, Puls H, Hall A, Co I, Theyyunni N, Williamson CA, Fung C. **Lung ultrasound profiles in COVID-19 associated acute hypoxic respiratory failure.** Research snapshot presentation, Society of Critical Care Medicine 50th Critical Care Congress, February 2021.

29. Carter SL, Kobayashi JE, **Rajajee V**, Williamson CA. **Improving comfort with conducting end of life discussions in the neuroICU- an educational intervention**. Poster presentation, Neurocritical Care Society 19th annual meeting. Chicago, IL. October 27, 2021.