### **CHRISTINE HAMMER MD**

253.317.0961 | hammer.jefferson@gmail.com

### EMPLOYMENT

**04/2023** – Neurosurgeon, General and Spine, Olympia Orthopedic Associates, Olympia, WA 09/2019 – 10/2022 Neurosurgeon, General and Spine, Catholic Health Initiative, Tacoma, WA 08/2018 – 07/2019 Spine Fellow and Junior Faculty, Emory University, Atlanta, GA 06/2011 – 06/2018 Neurosurgery Resident, Thomas Jefferson University Hospital, Philadelphia, PA

### EDUCATION

06/2015 – 06/2016 Thomas Jefferson University, College of Population Health, Philadelphia, PA Health Policy, Graduate Certificate applicable to an M.S. in Health Policy 08/2007 – 05/2011 Indiana University School of Medicine, Indianapolis, IN M.D. 08/2002 – 05/2007 Indiana University Purdue University, Indianapolis, IN B.S. Biology Research Thesis: The Role of Zinc Finger Transcription Factors in Xenopus Laevis Development

### ACTIVE MEDICAL LICENSES

2019 State of Washington: 60937237

#### NPI

2011 - Present 1821389255

## ATLS TRAINING

05/2015 Completed, Certified

#### **BOARD CERTIFICATION PROGRESS**

2016 American Board of Neurological Surgery, Primary Exam, Passed 2015 American Board of Neurological Surgery, Primary Exam, Passed

#### PUBLICATIONS

2019 Hammer, C et. al. Liposomal bupivacaine may decrease opiate use and lower pain scores in patients undergoing lumbar spine surgery. 2019. Submitted.

2018 Hammer, C et al. Penetrating Injuries to the Cervical Spine. Cervical Trauma. 2018. 2017 Hammer, C et al. Navigated anterior transoral surgery for C1 and C2 pathologies. Navigation and Robotics in Spine Surgery. 2018.

- 2017 Achey et al. Patient-assessed tremor severity, not physician-reported motor symptom severity, predicts depression and anxiety in Parkinson's Disease and Essential Tremor patients undergoing deep brain stimulation. J Neurosurg. 2017.
- 2017 Daoh, B et al. Anticoagulation versus Antiplatelet Treatment in Patients with Carotid and Vertebral Artery Dissection: A Study of 370 Patients and Literature Review. Neurosurg. 2017.
- 2016 Hammer, C, Rodriguez, A, Schirmer, C. Achieving Greatness: #Concussion. Neurosurgery Blog. Published October 12, 2016.
- 2016 Storey, A, et al. Development of moyamoya arteriopathy following treatment of intracranial tumors: Clinical and radiographic characterization. 2016. (Submitted)
- 2016 Hammer, C, Winer, J, Warf, B. Central Cord Syndrome in a Pediatric Patient with Chiari-I Malformation 2016.
- 2016 Jernigan, S, et al. Cerebral vasculopathy associated with PHACE syndrome after indirect surgical

revascularization. 2016. (Accepted 2018).

Ι

2016 Hammer, C et al. Decreased CSF Output as a Clinical Indicator of Cerebral Vasospasm Following Aneurysmal Subarachnoid Hemorrhage. Clin Neurol Neurosurg. 2016. May; 144:101-4

- 2015 Daoh, B et al. Dissecting Pseudoaneurysms: Predictors of Symptom Occurrence, Enlargement, Clinical Outcome and Treatment. J Neurosurg. 2015.
- 2014 Chalouhi, N et al. Safety and Efficacy of the Pipeline Embolization Device in 100 Small Aneurysms. J Neurosurg. 2015 Jun; 122(6):1498-502.
- 2014 Chalouhi, N et al. Endovascular management of cerebral vasospasm following aneurysm rupture: Outcomes and predictors in 116 patients. Clinical Neurol Neurosurg. 2014 Mar; 118:26-31.
  - 2014 Hammer, C et al. Nutritonal Care of the Spinal Cord Injured Patient. Benzel's Spine Surgery: Techniques, Complication Avoidance, and Management, 4<sup>th</sup> Edition 2014.
- 2013 Hammer, C, et al., A. Images In Neurosurgery. Congress Quarterly, Fall 2013. 2012 Hammer, C, et al. J. Techniques for Intradural Tumor Resection. Master Techniques in Orthopaedic Surgery: The Spine, 3<sup>rd</sup> Edition. 2014.
- 2012 Hammer, C, et al. Cranial Epidural Abscess and Subdural Empyema. Principles and Practice of Pediatric Neurosurgery, 3<sup>rd</sup> Edition. 2014.

## **RESEARCH AND ACADEMIC ACTIVITIES**

2017 Antiplatelet Agent Reversal in Patients with Intracranial Hemorrhage (Retrospective IRB approved) Principle Investigator: Jack Jallo M.D., Department of Neurological Surgery, Thomas Jefferson University, Philadelphia, PA

- 2017 The comparative effects of DTRAX in the setting of multiple level ACDF (IRB approved) Principle Investigator: Joshua Heller M.D., Department of Neurological Surgery, Thomas Jefferson University, Philadelphia, PA
- 2016 Assessment of time and financial costs of lumber microdiscectomy for twenty patients Principle Investigator: William Welch M.D., Department of Neurological Surgery, University of Pennsylvania Health System, Philadelphia, PA
- 2016 The impact of DBS on quality of life and depression in patients with Parkinson's Disease and Essential Tremor Principle Investigator: Darlene Lobel M.D., Department of Neurological Surgery, Cleveland Clinic, Cleveland, OH
- 2016 Quality Improvement in Pediatric Neurosurgery
  - Principle Investigator: Liliana Goumnerova M.D. and Mark Proctor M.D., Boston Children's Hospital, Boston, MA
- 2014 2015 Internal Carotid Artery and Vertebral Artery Dissections, Retrospective Study Principle Investigator: S. Tjoumakaris, M.D., Department of Neurological Surgery, Thomas Jefferson University, Philadelphia, PA
- 2013 2015 Vasospasm and CSF trends in patients with subarachnoid hemorrhage, Retrospective Study Principle Investigator: Pascal Jabbour, M.D, Department of Neurological Surgery, Thomas Jefferson University, Philadelphia, PA
  - 2008 2009 Summer Research Program in Academic Medicine, Spinal Cord and Brain Injury Research Group, Stark Neurosciences Research Institute, Indiana University School of Medicine, Indianapolis, IN Principle Investigator: Xiao-Ming Xu M.D. Ph.D., Department of Neurological Surgery Project: CPLA2 Activation Induces Neuronal Death Through Apoptosis
- 2006 2007 Undergraduate Senior Research, Indiana University School of Medicine, Indianapolis, IN Principle Investigator: Simon J Rhodes Ph.D., Department of Cellular and Integrative Physiology Project: The Role of Zinc Finger Transcription Factors in Xenopus Laevis Development

## AWARDS

2016 AANS/CNS Resident Traveling Fellowship in Pediatric Neurosurgery

Π

Boston Children's Hospital, Boston, MA

2015 Council of State Neurosurgical Societies, Northeast Quadrant Socioeconomic Fellowship 2015-2016 2011 Julius M. Goodman Neurosurgery Scholarship

Indiana University School of Medicine, Indianapolis, IN

2009 Claude Smith Black M.D. Scholarship, Best Project and Presentation

Indiana University School of Medicine Student Research Forum, Indianapolis, IN

2008 Student Summer Research Program in Academic Medicine Scholarship

Indiana University School of Medicine, Indianapolis, IN

2004 Scholarship Recipient and Biology Mentor

Bepko Learning Center, Indiana University Purdue University, Indianapolis, IN

# POSTER SESSIONS AND ORAL PRESENTATIONS

2017 Housestaff Quality and Safety Poster Session Antiplatelet Agent Reversal in Patients with Intracranial Hemorrhage Thomas Jefferson University Hospital, Philadelphia, PA 2015 Digital Poster Session, The Congress of Neurological Surgeons (CNS), Fall 2015 Meeting Dissecting Pseudoaneurysms: Predictors of Symptom Occurrence, Enlargement, Clinical Outcome and Treatment. CNS Fall 2015 Meeting, New Orleans, LA 2015 Digital Poster Session, The Congress of Neurological Surgeons (CNS), Fall 2015 Meeting Anticoagulation versus Antiplatelet Treatment in Patients with Carotid and Vertebral Artery Dissection: A Study of 370 Patients and Literature Review. CNS Fall 2015 Meeting, New Orleans, LA 2015 Counsel of State of Neurosurgical Societies (CSNS), Fall 2015 Meeting **Testimony to Resolutions** CSNS Fall 2015 Meeting, New Orleans, LA 2015 Housestaff Quality and Safety Poster Session Intraoperative Communication: Quality and Safety Concerns and Future Directions Thomas Jefferson University Hospital, Philadelphia, PA 2011 - 2018 Residency case conference presentations and board review presentations

## **PROFESSIONAL ACTIVITIES**

 2015 - 2016 Council of State Neurosurgical Societies
 2015 - 2016 Housestaff Quality and Safety Leadership Council Thomas Jefferson University Hospital, Philadelphia, PA
 2013 Society of Neurological Surgeons Junior Resident Course, Bootcamp II Weill Cornell Medical Center, New York, NY
 2011 Society of Neurological Surgeons Intern Course, Bootcamp I University of Pennsylvania, Philadelphia, PA

# PRE-RESIDENCY ACADEMIC ACTIVITIES

2010 - 2011 Dean Appointed Liaison, Competency Team, Indiana University School of Medicine, Indianapolis, IN 2010 2011 Volunteer, Student Outreach Clinic, Indiana University School of Medicine, Indianapolis, IN 2009 - 2010 Dean
Appointed Student Leader, Student Research Committee, Indiana University School of Medicine, Indianapolis, IN
2008 - 2009 Co-Chair, Ethics At Lunch Student Interest Group, Indiana University School of Medicine, Indianapolis, IN
2007 - 2008 Member, Indiana University School of Medicine Ethics Team, Indianapolis, IN Participated in meetings which
addressed issues relevant to the Competency VII: Moral Reasoning and Ethical Judgment

# Ш

2004 - 2007 Technical Assistant, *Stroke News*, Stroke Program, Indiana University School of Medicine, Indianapolis, IN Initiated design: Spring 2004

Subsequent issues: Fall 2004, Spring 2005, Fall 2005, Summer 2006, Winter 2007/2008

2003 - 2005 Learning Resource Mentor, Bepko Learning Center, Indiana University Purdue University Indianapolis, IN

2002 - 2003 Mentor, College Mentors For Kids (CMFK), Indiana University Purdue University, Indianapolis, IN