

Carlos Osorno-Cruz, MD

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Memphis, TN 38104

EDUCATION

University of Tennessee
Department of Neurosurgery
Neurosurgery Resident
Expected Completion 2029
Memphis, TN
ABNS Neurosurgery Written Boards- Pass
July 2022 – Current

University of Iowa Carver College of Medicine
Iowa City, IA
M.D.
USMLE Step 1 – Pass
USMLE Step 2 – Pass
USMLE Step 3 – Pass
Aug 2018 – May 2022

University of South Florida, Tampa, FL
Bachelor of Science
Major: Bio-Medical Science
Minor: Anthropology
Apr 2014 – Dec 2017

NEUROSURGICAL CME

5th Annual MIS Pediatric Neurosurgery Course
Northwestern University
Chicago, IL
Aug 22-25, 2025

Hydrocephalus Management Course
Aesculap Academy Course
Miami, FL
Nov 21-22, 2025

33rd Skull Base Approaches Course
St. Louis University
St. Louis, MO
Apr 29- May 1, 2026

RESEARCH

Published Articles & Abstracts

1. Motiwala M, Tambi S, Motiwala A, Dacus M, Troy C, **Osorno-Cruz C**, Gienapp AJ, Boop F, Klimo P, Wheless J, Einhaus S. Corpus callosotomy for intractable epilepsy: a contemporary series of operative factors and the overall complication rate. J Neurosurg Pediatr. 2024 Dec 6;35(3):276-283. doi: 10.3171/2024.8.PEDS2460. PMID: 39642376.
2. Panther E, Lucke-Wold B, Laurent D, **Osorno-Cruz C**, Mehkri Y, Turner R, Polifka A, Koch M, Hoh B, Chalouhi N. Treatment of Dissecting Vertebral Pseudoaneurysms: A Single-Center Experience. Ann Neurol Neurosci. 2022;1(1):1002. Epub 2022 Sep 12. PMID: 36468934; PMCID: PMC9717722.
3. **Osorno-Cruz C**, Hasanpour Z, Peart R, Dodd W, Laurent D, Aghili-Mehrizi S, Lucke-Wold B, Chalouhi N. Venous Outflow for Brain Arteriovenous Malformations: Overview and Treatment Implications. Int J Neurobiol. 2022;4(2):151. Epub 2022 Aug 16. PMID: 36081858; PMCID: PMC9450881.

4. Raghuram, Ashrita, Sebastian Sanchez, Linder Wendt, Steven Cochran, Daizo Ishii, **Carlos Osorno**, Girish Bathla, et al. "3D aneurysm wall enhancement is associated with symptomatic presentation." *J Neurointerv Surg*, July 19, 2022. <https://doi.org/10.1136/jnis-2022-019125>.
5. **Osorno-Cruz C**, Piscopo A, Raghuram A, Sanchez S, Samaniego E, Hasan D. Reversible bilateral optic tract edema following pipeline-assisted coiling of a large ophthalmic aneurysm: A case report. *Clin Neurol Neurosurg*. 2021 Dec;211:107029. doi: 10.1016/j.clineuro.2021.107029. Epub 2021 Nov 11. PMID: 34794059.
6. Raghuram A, Galloy AE, Nino MA, Varon Miller A, Sanchez S, Sabotin R, **Osorno-Cruz C**, Raghavan SML, Hasan D, Samaniego EA. Abstract 1122-000213: Presence of Blebs Associated with Reduced Aneurysm Wall Tension and Increased Wall Enhancement. *SVIN* 17 Nov 2021. *Stroke: Vascular and Interventional Neurology*. 2021;1:e12120. Presented by Samaniego EA
7. Galloy AE, Raghuram A, Nino MA, Varon Miller A, Sabotin R, **Osorno-Cruz C**, Samaniego EA, Raghavan SML, Hasan D. Analysis of Cerebral Aneurysm Wall Tension and Enhancement Using Finite Element Analysis and High-Resolution Vessel Wall Imaging. *Front Neurol*. 2021 Dec 10;12:764063. doi: 10.3389/fneur.2021.764063. PMID: 34956050; PMCID: PMC8702555.
8. Seaman SC, Ali MS, Marincovich A, **Osorno-Cruz C**, Greenlee JDW. Single surgeon experience with minimally invasive supraorbital craniotomy versus bifrontal craniotomy for anterior skull base meningiomas. *Surg Neurol Int*. 2020 Dec 22; 11:458. doi: 10.25259/SNI_767_2020. PMID: 33408943; PMCID: PMC7771486
9. Zanaty M, **Osorno-Cruz C**, Byer S, Roa JA, Limaye K, Ishii D, Nakagawa D, Torner J, Yongjun L, Ortega-Gutiérrez S, Samaniego EA, Allan L, Hasan D. Tirofiban Protocol Protects Against Delayed Cerebral Ischemia: A Case-Series Study. *Neurosurgery*. 2020 Oct 15;87(5):E552-E556. doi: 10.1093/neuros/nyaa170. PMID: 32415850.
10. Ishii D, Nakagawa D, Zanaty M, Roa JA, Al Kasab S, Shaban A, Hudson JS, **Osorno-Cruz C**, Byer S, Allan L, Torner JC, Awad IA, Carroll TJ, Samaniego EA, Hasan DM. Quantitative Susceptibility Mapping and Vessel Wall Imaging as Screening Tools to Detect Microbleed in Sentinel Headache. *J Clin Med*. 2020 Apr 1;9(4):979. doi: 10.3390/jcm9040979. PMID: 32244737; PMCID: PMC7230854.
11. Roa JA, Zanaty M, Pazour A, **Osorno-Cruz C**, Ishii D, Hasan DM, Samaniego EA. Abstract WMP29: Contrast Enhancement Measurement of Unruptured Intracranial Aneurysms: A 3T High-Resolution Vessel Wall Imaging Validation Study. *International Stroke Conference 2020 Moderated Poster Abstracts*. 12 Feb 2020. *Stroke*.;51:AWMP29. Presented by Roa JA
12. Roa JA, Zanaty M, Pazour A, **Osorno-Cruz C**, Ishii D, Hasan DM, Samaniego EA. Abstract 143: Increased Contrast Enhancement of the Parent Vessel of Unruptured Intracranial Aneurysms in 7T Magnetic Resonance Imaging. *International Stroke Conference 2020 Oral abstract*. 12 Feb 2020. *Stroke*.;51:A143. Presented by Roa JA
13. Roa JA, Zanaty M, **Osorno-Cruz C**, Ishii D, Bathla G, Ortega-Gutierrez S, Hasan DM, Samaniego EA. Objective quantification of contrast enhancement of unruptured intracranial aneurysms: a high-resolution vessel wall imaging validation study. *J Neurosurg*. 2020 Feb 7;1-8. doi: 10.3171/2019.12. JNS192746. Epub ahead of print. PMID: 32032948; PMCID: PMC7415549.

Published Book Chapters

14. **Osorno-Cruz, Carlos**. Contributing Author to Chapter 8. Sick Cell Disease in the Emergency Department. Opportunities for Improving the Patient Experience. In: Wilson, JW and Baer, R. *The Patient Experience: Medical Anthropology and Education in the 21st Century*. Lexington books, Rowman and Littlefield Publishing Group. 2021

Articles in process

15. **Osorno-Cruz C**, Piscopo A, Zanaty M, Allan L, Hasan D. The Use of Deferiprone to Improve Subarachnoid Hemorrhage Cognitive Outcome: U-DISCO. Expected publication Fall 2025

16. Mechanisms of Flow-Driven Venous Sinus Stenosis and Recurrence in Idiopathic Intracranial Hypertension: A Case Series and Insights into the Pathophysiology of IIH and Venous Stenting
17. Measured Entry Angle is an Independent Predictor of Complete Occlusion of Aneurysms with the Woven Endobridge (WEB) Device

Oral Presentations

18. **Osorno-Cruz C**, Jason Sims, Paul Klim, James Wheless, Sarah Weatherspoon, Emily Hanzlik, Nir Shimony. December 7, 2025. Seizure Outcomes and Predictors in Pediatric Tumor-Related Epilepsy: A Retrospective Literature Analysis of LEATs. AANS/CNS Section on Pediatric Neurosurgery, Memphis, TN, USA. Presented by Carlos Osorno-Cruz
19. **Osorno-Cruz C**, Allan L, Hasan D. September 20, 2019. Continuous IV tirofiban in Acute Aneurysmal Subarachnoid Hemorrhage is Associated with a Reduced Risk of Clinical Vasospasm. Carver College of Medicine Medical Student Research Conference, Iowa City, IA, USA. Presented by Carlos Osorno-Cruz
20. **Osorno-Cruz C**, Allan L, Hasan D. August 17, 2019. Continuous IV Tirofiban in Acute Aneurysmal Subarachnoid Hemorrhage is Associated with a Reduced Risk of Clinical Vasospasm. Midwest Neurosurgery Society Meeting, Kansas City, KS, USA. Presented by Carlos
21. **Osorno-Cruz C** and Wilson JW. April 5, 2018. Understanding the Sickle-Cell Patient Experience and New Approaches to Pain Management. Presentation as part of Anthropology and Special Patient Populations in the Emergency Department (TH-160). Society for Applied Anthropology (sfAA), Philadelphia, Pennsylvania, USA. Presented by Carlos Osorno-Cruz.

Poster Presentations

22. **Osorno-Cruz C**, Zanaty Mario, Byer S, Roa JA, Limaye K, Ishii D, Nakagawa D, Torner J, Yongjun L, Ortega-Gutiérrez S, Samaniego EA, Allan L, Hasan D. August 23, 2021. Tirofiban Protocol Protects Against Delayed Cerebral Ischemia: A Case-Series Study. American Association of Neurological Surgeons Annual Scientific Meeting; Orlando, FL, USA. Presented by Carlos Osorno-Cruz
23. **Osorno-Cruz, C**, Semmons R, Burgin SW. August 4, 2018. Stroke Thrombolytic Therapy: aiming to decrease the in-hospital delay window to 20 minutes by using a cellphone. Florida College of Emergency Physicians Symposium by the Sea; Ft Myers, FL, USA. Presented by Carlos Osorno-Cruz
24. **Osorno-Cruz, C**, Nappi A, Wilson J. August 5, 2017. Implementation of patient controlled analgesia protocol for sickle-cell patients presenting with acute pain crisis creates consistent patient expectations with no negative impacts on operation metrics and patient experience. Florida College of Emergency Physicians Symposium by the Sea; Boca Raton, FL, USA. Presented by Carlos Osorno-Cruz
25. **Osorno-Cruz, C**, Smeltzer S, Zamudio F, Quadri Z, Selenica ML. February 24, 2017. Stress-induced nucleocytoplasmic shuttling of TDP-43 is controlled by eIF-5A hypusination. University of South Florida Health Research Day; Tampa, FL, USA. Presented by Carlos Osorno-Cruz.

Ongoing Projects

1. Systematic review of intractable epilepsy after tumor resection and case series
2. Fostering Healthcare Equity through Medical Student Engagement: A Stroke Prevention Initiative in Memphis
3. Factors affecting the Length of Pediatric Phase II Invasive Epilepsy Monitoring
4. Influence of Fluid Status in Severe TBI Patients
5. Outcomes of Glioma Resection using iMRI
6. Central PRES: Review of the literature

LEADERSHIP EXPERIENCE

AANS Neurosurgery Interest Group University of Iowa, Iowa City, IA	May 2020 – May 2022
Vice President and Class of 2022 group representative	
University of Iowa Mobile Clinic Iowa City, IA	Jan 2020 – May 2022
Clinic coordinator of the West Liberty, IA Mobile Clinic	
Surgery Interest Group University of Iowa, Iowa City, IA	Jan 2019 – Jan 2020
President of the interest group, helped reestablish the group and recruit members	
Carver College of Medicine Bean Community Leadership University of Iowa, Iowa City, IA	Jan 2019 – Jan 2020
Treasure of the community, managed community finances	

VOLUNTEER AND EXTRACURRICULAR

College of Public Health	May 2020 – Jun 2020
- Translation of COVID-19 community information - Produced a COVID-19 Spanish informational video	
Iowa City Free Medical Clinic	Jun 2019 – May 2022
Spanish translator and patient examiner	
Summer Health Professions Education Program	Jun 2019 – Jun 2022
Vitals instructor and Case Based Learning Facilitator	
University of Iowa Mobile Clinic	Aug 2018 – Jun 2022
Spanish translator and patient examiner	
Pre-M1 Student Mentor	May 2019 – Jun 2022
Mentor pre-M1 students who have been accepted to Carver College of medicine	
Community Health Outreach	Aug 2018 – May 2019
Various group volunteer projects and weekly discussions relevant to community health	
Florida Hospital Tampa Volunteer	Sept 2015 – Dec 2017
Greet and direct patients, assisted with transportation of out-patients	

EMPLOYMENT

USMLE Step 1 Study Guide Iowa City, IA	Aug 2021-Dec 2021
Help students organize and structure their USMLE preparation	
Tampa General Hospital Research Associate Tampa, FL	May 2017 – Jul 2018
- Screened and consented patients for various acute care research studies - Trained in phlebotomy for blood sample collection	
Luxury Entertainment Tampa, FL	May 2012 – Oct 2019
- Established a DJ and Photo booth company - Private events (Weddings, Birthdays, Proms etc.)	

HONORS, AWARDS, AND GRANTS

Carver College of Medicine Dean's Scholarship Recipient	Sep 2018-2021
\$7500 awarded yearly	
Carver College of Medicine Research Conference	Sep 2019
Excellence in Neuroscience Translational Research award	
Carver College of Medicine Summer Research Fellowship award	May 2019
\$6204 award for 12 weeks of research	

MEMBERSHIP

American Association of Neurological Surgeons

Congress of Neurologic Surgeons
Student National Medical Association
Latino Medical Student Association
American Medical Association
