

## Carlos Osorno-Cruz, MD

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Memphis, TN 38104

### **EDUCATION**

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	Aug 2014 – Dec 2017

### **RESEARCH**

#### **Published Articles & Abstracts**

1. 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.
2. 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.
3. 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>.
4. **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.
5. 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
6. 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.
7. 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
8. 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.

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9. 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.
10. 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
11. 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
12. 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

13. **Osorno-Cruz, Carlos.** Contributing Author to Chapter 8. Sickle 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

14. **Osorno-Cruz C**, Piscopo A, Zanaty M, Allan L, Hasan D. The Use of Dexamethasone to Improve Subarachnoid Hemorrhage Cognitive Outcome: U-DISCO. Expected publication Fall 2023

#### Oral Presentations

15. **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
16. **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
17. **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

18. **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
19. **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
20. **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

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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

21. **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. Severe TBI and fluid status
2. Memphis experience of iMRI

#### LEADERSHIP EXPERIENCE

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

Commented [OCC1]: Duties, responsibilities, and accomplishments

#### 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 – Current
• Vitals instructor and Case Based Learning Facilitator	
University of Iowa Mobile Clinic	Aug 2018 – Current
• Spanish translator and patient examiner	
Pre-M1 Student Mentor	May 2019 – Current
• 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	Aug 2021-Dec 2021
Iowa City, IA	
• Help students organize and structure their USMLE preparation	
Tampa General Hospital Research Associate	May 2017 – Jul 2018
Tampa, FL	
• Screened and consented patients for various acute care research studies	
• Trained in phlebotomy for blood sample collection	
Luxury Entertainment	May 2012 – Oct 2019
Tampa, FL	
• Built a DJ and Photo booth company	
• Private events (Weddings, Birthdays, Proms etc.)	

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**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  
Student National Medical Association  
Latino Medical Student Association  
American Medical Association

**HOBBIES/INTERESTS**

Backyard Chickens, Boxing, Bowling, Gardening