

Tyler S. Cole, MD

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Attending Practice

March 2025 – current	University of California, San Francisco Medical Center Community Hospital of the Monterey Peninsula (CHOMP)	San Francisco, CA Monterey, CA
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UCSF Assistant Professor of Neurosurgery

CHOMP Director of Cerebrovascular Surgery and Neurointerventional Services

- To serve community needs, successfully built and launched the first interventional stroke thrombectomy and neurointerventional program in Monterey County
- Achieved The Joint Commission Advanced Primary Stroke Center Status in October 2025
- Selected as teaching faculty for the American Association of Neurological Surgeons Goodman Oral Board Preparation Course
- Led the first annual Monterey County Neuroscience Symposium
- Newly establish stroke thrombectomy program featured in local news, “High-tech view of the brain makes stroke recovery easier.”
<https://carmelpinecone.com/260626PC.pdf>

August 2023 – February 2025	Cedars-Sinai Medical Center, Torrance Memorial Medical Center	Los Angeles, CA Torrance, CA
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Assistant Professor of Neurosurgery/Faculty Neurosurgeon

- Privileged at Cedars-Sinai Medical Center, Torrance Memorial Medical Center, and Providence Cedars-Sinai Tarzana Medical Center

Education + Training

July 2015 – June 2022	Barrow Neurological Institute / St. Joseph’s Hospital and Medical Center	Phoenix, AZ
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Chief Resident, Cerebrovascular and Skull Base Surgery Fellowship 2021-2022

- Fellowship director: Michael T. Lawton, MD

Resident Physician in Neurosurgery 2015-2021

- Lisa Family Foundation Innovation Grant and Barrow Neurological Foundation Grant to study physiologic monitors in post-operative transsphenoidal patients
- Barrow Neurological Foundation funding for translational research on 1) microvascular anastomotic coupling device development and 2) MR angiography integration with MR perfusion and MR flow data for small vessel imaging
- Additional focus on socioeconomic and data-driven research using large, nationwide databases
- Council of State Neurological Societies 2020-2021 Socioeconomic Fellow, member of Committee on Coding/Reimbursement

July 2022 – July 2023	Barrow Neurological Institute / St. Joseph’s Hospital and Medical Center	Phoenix, AZ
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Endovascular Neurosurgery Fellowship 2022-2023

- Fellowship director: Dr. Felipe Albuquerque

January 2021 – June 2021 **University of California, Irvine Health** Orange, CA

Epilepsy Surgery Fellowship

- Fellowship director: Dr. Sumeet Vadera
- Research focused on surgeon-led initiatives to increase access to surgical treatment of epilepsy at an academic Level 4 Epilepsy Center
- Served in an advisory role and content contributor to EpilepsyX.net (details below)

Aug 2011 – June 2015 **Stanford University School of Medicine** Stanford, CA

Doctor of Medicine

- Scholarly concentration in Data-Driven Medicine and Biomedical Informatics
- Research advisors: John K. Ratliff, MD, FACS and Nigam Shah, PhD, MBBS
- USMLE Step 1/2 Score: 265/267
- Neurosurgery sub-internships: Brigham and Women's Hospital/Children's Hospital Boston; University of California – San Diego

Core clerkship distinction (on scale of distinction/pass/fail) achieved in:

- Patient care: Medicine, Surgery, Critical Care, Neurology
- Professionalism: Medicine, Surgery, Ob/Gyn, Critical Care, Neurology, Pediatrics
- Shelf exam: Medicine, Surgery, Ob/Gyn, Neurology, Pediatrics, Psychiatry, Family

August 2006 – June 2010 **University of Michigan** Ann Arbor, MI

Bachelor of Science in Microbiology

- Honors Program; College of Literature, Science, and the Arts
- Highest Distinction and High Honors, GPA 3.94, Phi Beta Kappa
- Thesis: Immunomodulation of bone marrow-derived dendritic cells during endotoxin- and bacterial sonicate-induced tolerance
- Thesis advisor: John Y. Kao, MD

Research and Professional Experience

January 2022 – June 2022 **Advisory Committee Member** *EpilepsyX.net*

- EpilepsyX.net is a social network designed for doctors involved in treating epilepsy to connect, exchange, and learn from each other's experience to improve the standard of care for epilepsy patients
- Contributed input regarding content, design features, and user experience prior to network launch in June 2021; continue in an ongoing advisory role

Oct 2012 – June 2015 **Chief Data Scientist** *Ratliff Lab, Dept. of Neurosurgery
Stanford University School of Medicine*

- Focus on application of techniques in observational studies to understand outcomes in neurological surgery
- We study impact of patient disease process, choice of operative approach, and patient pre-operative comorbidity and socioeconomic factors on complication occurrence
- Developing clinical tool for use during patient counseling
- *AANS Medical Student Summer Research Fellowship*
- *CNS/CSNS Medical Student Socioeconomic Research Fellowship*

Jan 2012 – Jan 2013	Clinical Data Scientist	<i>Shah Lab, Dept. of Biomedical Informatics Stanford University School of Medicine</i>	- Utilized ontology-based approaches to annotate, index, integrate and analyze Big Data available in biomedicine to enable data-driven decision making - Combined machine learning and text-mining with prior knowledge encoded in medical ontologies to discover hidden trends and build risk models
Jan 2009 – Dec 2010	Research Scientist	<i>Kao Lab, Division of Gastroenterology University of Michigan Medical School</i>	- Studied role of dendritic cells in host response to <i>H. pylori</i> colonization, with several publications resulting from my work <i>Biomedical and Life Sciences Research Fellowship, University of Michigan</i>
2008, During academic year	Research Scientist	<i>Moyer Lab, School of Public Health University of Michigan</i>	- Designed an investigation into the role of optimism/pessimism and health-related quality of life (HRQOL) in pregnancy outcomes in Lima, Peru <i>NIH Minority and Health Disparities International Research Training Program</i>
2007, Summer	Research Scientist	<i>Wainer Lab, National Institutes of Health Johns Hopkins Bayview Research Campus</i>	- Determined the pharmacokinetics of fenoterol, a beta agonist, and its derivatives as an initial investigation into its use as a therapy for congestive heart failure <i>NIH Summer Undergraduate Fellowship in Biomedical Research</i>

Relevant Honors and Awards

2006	Awarded National Merit Scholarship, PPG Industries
2007	Awarded NIH Summer Fellowship in Biomedical Research
2009	Awarded University of Michigan Biomedical and Life Sciences Fellowship Selected as Instructor of Freshman Seminar on Epidemiology – University of Michigan Honors Program
2010	Awarded Highest Distinction (GPA 3.94) and High Honors (based on Honors thesis quality) from University of Michigan, Bachelor of Science Awarded Excellence in Undergraduate Research Award (University of Michigan College of LS&A) Awarded James B. Angell Award (2 of more consecutive terms with all “A” record) Acceptance to Phi Beta Kappa Honor Society
2011	Awarded Stanford University Medical Scholars Fellowship (Shah Lab)
2013	Awarded American Association of Neurological Surgeons 2012-2013 Medical Student Summer Research Fellowship Elected Stanford Medical School Class Representative Abstract Award in Clinical Science, Western Neurosurgical Society 59th Annual meeting, September 15-18, 2013, Half Moon Bay Invited Speaker, Winner in Artificial Intelligence and Big Data Abstract Competition at Pediatrics 2040: Trends and Innovations for the Next 25 Years, October 3–5, 2013. Anaheim, CA.

2014	• Awarded Stanford Society of Physician Scholars (SSPS) Grant • Featured informatics research in Wall Street Journal article <i>Big Data Treasure Trove From Routine Medical Checkups - The Rise of Electronic Health Records Helps Doctors Make a Better Diagnosis</i> 12 May 2014 and Stanford Medicine Magazine <i>Great Medical Mines – The Healing Power of Patient Records</i> Spring 2014 Edition. • Awarded Stanford University Medical Scholars Fellowship (Ratliff Lab) • Awarded Council of State Neurosurgical Societies/Congress of Neurological Surgeons 2014 Medical Student Socioeconomic Research Fellowship • Awarded/Inducted Arnold P. Gold Humanism Honor Society, “considered a humanistic exemplar by peers for the entire student body” • Awarded Tylenol Future Care Scholarship
2015	• Awarded Top Oral Platform Presentation on abstract “Predicting Occurrence of Spine Surgery Complications Using 'Big Data' Modeling of an Administrative Claims Database”, CNS/AANS Section on Disorders of the Spine and Peripheral Nerves, March 4-7, 2015. Phoenix, AZ. First author: John Ratliff. • Selected as cover for Journal of Neurosurgery: Spine July 2015 issue, article "Cervical laminoplasty developments and trends, 2003–2013: a systematic review".
2017	• Physician Award nominee from the Barrow Neurological Institute Intensive Care Unit Nursing Staff “In recognition that he made the biggest impact on staff and patients in 2017”
2020	• CNS Best Operative Technique Award - Cerebrovascular “In Vivo Preclinical Quantitative Flow Analysis of Arterial Anastomosis Using a Microvascular Anastomotic Coupler and Clinical Application for Extracranial-to-Intracranial Bypass” • CNS Best Clinical Research Award – CSNS “Access to Neurosurgery in the Era of Narrowing Insurance Networks: Statewide Analysis of Accountable Care Act Marketplace Plans in Arizona, USA” • Selected as cover for Journal of Neurosurgery: Spine Feb 2020 issue, “Functional improvement in hand strength and dexterity after surgical treatment of cervical spondylotic myelopathy: a prospective quantitative study”
2026	• Featured in local Carmel Pine Cone newspaper, “High-tech view of the brain makes stroke recovery easier.” June, 2026. https://carmelpinecone.com/260626PC.pdf

Professional Memberships

Fellow of the Congress of Neurological Surgeons

Fellow of the American Association of Neurological Surgeons

Alternate Member of the CSNS/AANS Caucus for a 3-year term, beginning April 24, 2023 and ending with the 2026 Annual Meeting

Invited and Scholarly Presentations

2009	• Invited Speaker at Universidad Nacional del Altiplano, Puno, Perú to discuss research on <i>H. pylori</i>
2013	• Invited Speaker Stanford University Neuroscience Forum; June 7, 2013; “The Use of Bone Morphogenetic Protein in Cervical Spine Procedures: Analysis of the Marketscan Longitudinal Database”

- **Invited Speaker, Winner** in Artificial Intelligence and Big Data Abstract Competition at Pediatrics 2040: Trends and Innovations for the Next 25 Years, October 3–5, 2013. Anaheim, CA. “Profiling risk factors for chronic uveitis in juvenile idiopathic arthritis: a new model for EHR-based research”
- 2014
 - **Invited Presenter** 82nd AANS Annual Scientific Meeting, San Francisco, April 5-9, 2014. “The Use of Bone Morphogenetic Protein in Thoracolumbar Spine Procedures: Analysis of the Marketscan Longitudinal Database”
 - **Invited Presenter** 2014 AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Orlando, Florida, March 5 - 8, 2014. “The Use of Bone Morphogenetic Protein in Thoracolumbar Spine Procedures: Analysis of the Marketscan Longitudinal Database”
 - **Invited Presenter** for podium presentation at the Summit on Clinical Research Informatics (American Medical Informatics Association Joint Summits on Translational Science). April 10, 2014, San Francisco, CA. “Profiling Risk Factors for Chronic Uveitis in Juvenile Idiopathic Arthritis: A New Model for EHR-Based Research”
 - **Invited Presenter** at North American Spine Society 29th Annual Meeting, November 12-15, 2014. San Francisco, CA. “Surgeon Experience and Complication Rates in Anterior Cervical Discectomy and Fusions: A National Longitudinal Database Study”
 - **Invited Presenter** at 2014 Congress of Neurological Surgeons Annual Meeting, Oct 18-22, 2014. Boston, MA. “Intraoperative neuromonitoring in single level spinal procedures: A retrospective propensity score-matched analysis in a national longitudinal database” + “Longitudinal Databases Enable Improved Capture of Adverse Events in Spine Surgery” + “Postoperative Infections After Spinal Surgery: A Nationwide, Administrative Database Study” + “Surgeon experience and complication rates in anterior cervical discectomy and fusions: a national longitudinal database study”
- 2015
 - **Clinical Conference presentation** Barrow Neurological Institute, July 31, 2015. “National trends in pediatric epilepsy surgery, 2000-2012: A study of the Kids’ Inpatient Database”
 - **Clinical Conference presentation** Barrow Neurological Institute, December 11, 2015. “Cervical laminoplasty developments and trends, 2003-2013: a systematic review”
- 2016
 - **Clinical Conference presentation** Barrow Neurological Institute, April 29, 2016. “Guideline for Reversal of Antithrombotics in Intracranial Hemorrhage”
 - **Clinical Conference presentation** Barrow Neurological Institute, September 23, 2016. “Introduction to Thromboelastography”
 - **Barrow Pituitary Center Neuroendocrine Conference.** October 18, 2016. “Pituitary Tumors Associated with Inherited/Syndromic Conditions”
 - **Barrow Pituitary Center Neuroendocrine Conference.** November 15, 2016. “Rare Pituitary Tumors”
- 2017
 - **Clinical Conference presentation** Barrow Neurological Institute, May 26, 2017. “Management of Acute Peripheral Nerve Injuries”
 - **Clinical Conference presentation** Barrow Neurological Institute, Sept 8, 2017. “Post-discharge Physiologic Tracking of Trans-sphenoidal Surgical Patients”
- 2019
 - **Invited Presenter** at 2019 Congress of Neurological Surgeons Annual Meeting, Oct 22. San Francisco, CA. “Surgical treatment of cervical spondylotic myelopathy leads to functional improvement in hand strength and dexterity: a prospective quantitative study”
 - **Podium presentation/invited panelist** at Cervical Spine Research Society on functional outcomes after surgical treatment of cervical myelopathy. Nov 21 - 23, 2019 at New York Marriott Marquis, New York City.

- 2020
 - **Podium presentations** for **Best Operative Technique Award** and **Best Clinical Research Award** for 2020 Congress of Neurological Surgeons, remote due to COVID-19 pandemic.
 - Link to virtual presentation: [In vivo Preclinical Quantitative Flow Analysis of Arterial Anastomosis using a Microvascular Anastomic Coupler and Clinical Application](https://www.cns.org/meetings/2020-abstract-video-presentations-detail/in-vivo-preclinical-quantitative-flow-analysis-of-?fbclid=IwAR0sv-i4giihnO0fwaSYm1pMNB7dVHnmye7-Kmr5KPPyN4aWvByQm1kGfGc)
https://www.cns.org/meetings/2020-abstract-video-presentations-detail/in-vivo-preclinical-quantitative-flow-analysis-of-?fbclid=IwAR0sv-i4giihnO0fwaSYm1pMNB7dVHnmye7-Kmr5KPPyN4aWvByQm1kGfGc
- 2021
 - **Podium presentation** at 2021 Congress of Neurological Surgeons, Oct 16-20. Austin, TX. "Network analysis of neurosurgical publication coauthorship: centrality ranking of authors and institutions with correlation to clinical activity and industry payments"
 - **Grand Rounds presentation** Barrow Neurological Institute July 23, 2021
- 2022
 - **Podium presentation** at 2022 North American Skull Base Society, Feb 18-20. Phoenix, AZ. "Comparative anatomical assessment of full versus limited transcavernous exposure of the carotid-oculomotor window"
- 2023
 - **Invited interview** for AANS's [Neurosurgery Podcast Episode 154](#) "Statistics in Neurosurgery - Use, Misuse, & Abuse"
 - **Invited Interview** for AANS's [Neurosurgery Podcast Episode 156](#) "Perverse Incentives in Research"
- 2024
 - **Invited presentation** on "Aspiration alone versus stent retriever for thrombectomy" for 15th annual regional Neurovascular Symposium at Casa del Mar Hotel; Santa Monica, California) on Saturday, January 27th, 2024; Presentation also published by Wolters Kluwer AudioDigest.
 - **Invited presentation** on "Spinal surgery stability, bracing, and post-operative mobility - A surgeon's perspective" for Torrance Memorial Medical Center Ortho Educational Series Part 1: Spine. I was invited to help educate the staff on spinal stability, post-operative bracing, and post-operative mobility. March 7, 2024.
- 2026
 - **UCSF 1st Annual Monterey County Neuroscience Symposium** lecture, "The Next Frontier in Stroke Treatment: Innovations in Cerebral Thrombectomy", January 15th 2026 at Pasadera Inn.

Prior teaching positions

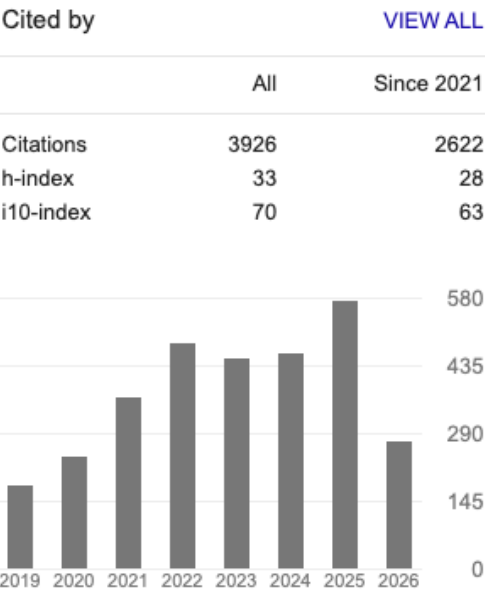
- 2009
 - **Instructor of Freshman Seminar on Epidemiology**
University of Michigan Honors Program (<http://bit.ly/alkp1l>)
 I designed the curriculum to combine epidemiology, disease biology, and anthropology to investigate the social and scientific factors involved in the spread of infectious diseases, as well as making qualitative critiques of current public health programs around the world
- 2012
 - **Teaching Assistant for Genetics (GENE 202)**
Stanford University School of Medicine
 As a TA I wrote chapters on multifactorial inheritance and non-Mendelian inheritance for class syllabus; created learning materials to consolidate genetics topics; made module videos; led small group sessions
 - **Teaching Assistant for Student Rounds (MED 248)**
Stanford University School of Medicine
 As a TA I organized clinical student speakers to present an intriguing medical case weekly and lead discussion of the relevant medical concepts

Grants

2016 – 2018	Lisa Family Foundation Innovation Grant <i>Post-discharge physiologic tracking of transphenoidal pituitary patients using a wrist-mounted device</i> This grant was started to encourage BNI residents to conceive, investigate, develop and publish new inventions in neurosurgery.	\$9,000
2016 – 2018	Barrow Neurological Foundation Research Grant <i>Post-discharge physiologic tracking of transphenoidal pituitary patients using a wrist-mounted device</i>	\$12,400
2018 – current	Barrow Neurological Foundation Research Grant <i>In vivo comparison of traditional microvascular bypass vs microvascular anastomotic coupling using a common carotid rat model</i>	\$70,000
2021 – current	Barrow Neurological Foundation Research Grant <i>Integration of superficial cortical arterial directional flow with perfusion MR to assist preoperative planning of cerebral reperfusion procedures</i>	\$49,732

Selected Peer-reviewed Publications

- Scherschinski L, Graffeo CS, Koester SW, Benner D, Srinivasan VM, Catapano JS, **Cole TS**, Lawton MT. Interobserver Agreement of R2eD Brain Arteriovenous Malformation Scoring. *Neurosurg Pract.* 2026 Jun 4;7(3):e000243. doi: 10.1227/neuprac.0000000000000243. PMID: 42244936; PMCID: PMC13232897.
- Cole TS**, Koester SW, Benner D, Catapano JS, Albuquerque FC, Lawton MT, Ducruet AF. Safety of argatroban to address heparin hypersensitivity in open and interventional carotid procedures. *Surg Neurol Int.* 2025;16:320. doi: 10.25259/SNI_560_2025. eCollection 2025. PubMed PMID: 41030407; PubMed Central PMCID: PMC12477958.
- Koester SW, Catapano JS, Hartke JN, Rudy RF, **Cole TS**, Naik A, Winkler EA, Graffeo CS, Srinivasan VM, Jadhav AP, Ducruet AF, Lawton MT, Albuquerque FC. Evaluation of ChatGPT in knowledge of newly evolving neurosurgery: middle meningeal artery embolization for subdural hematoma management. *J Neurointerv Surg.* 2024 Sep 17;16(10):1033-1035. doi: 10.1136/jnis-2024-021480. PubMed PMID: 38604767.
- Graffeo CS, Srinivasan VM, Scherschinski L, **Cole TS**, Lawton MT. Superficial Temporal Artery to Superior Cerebellar Artery STA (E-S*) s2 Bypass for Dolichoectatic Superior Cerebellar Artery Aneurysm After Failed Flow Diversion: 2-Dimensional Operative Video. *Oper Neurosurg.* 2024 Nov 1;27(5):664-665. doi: 10.1227/ons.0000000000001196. Epub 2024 May 21. PubMed PMID: 38717155.
- Catapano JS, Koester SW, Rumalla K, Lamorie-Foote K, Winkler EA, Benner D, Scherschinski L, Baranoski JF, **Cole TS**, Rudy RF, Graffeo CS, Srinivasan VM, Spetzler RF, Lawton MT. Microsurgical Resection of Brainstem Cavernous Malformations in Older Adults: A Multicenter, 30-Year Experience. *Neurosurgery.* 2024 Sep 1;95(3):669-675. doi: 10.1227/neu.0000000000002928. Epub 2024 Mar 29. PubMed PMID: 38551352.
- Cole TS**. Correspondence on 'Cerebral aneurysms: Germany-wide real-world outcome data of endovascular or neurosurgical treatment from 2007 to 2019' by Haverkamp et al. *J Neurointerv Surg.* 2024 Mar 14;16(4):430. doi: 10.1136/jnis-2023-020786. PubMed PMID: 37696597.
- Catapano JS, Winkler EA, Rudy RF, Graffeo CS, Koester SW, Srinivasan VM, **Cole TS**, Baranoski JF, Scherschinski L, Jha RM, Jadhav AP, Ducruet AF, Albuquerque FC, Lawton MT. Sex differences in patients



- with and without high-risk factors associated with aneurysmal subarachnoid hemorrhage. *Acta Neurochir (Wien)*. 2024 Mar 8;166(1):125. doi: 10.1007/s00701-024-06021-1. PubMed PMID: 38457080.
8. Koester SW, Rumalla K, Catapano JS, Sorkhi SR, Mahadevan V, Devine GP, Naik A, Winkler EA, Rudy RF, Baranoski JF, **Cole TS**, Graffeo CS, Srinivasan VM, Jha RM, Jadhav AP, Ducruet AF, Albuquerque FC, Lawton MT. Modafinil Therapy and Mental Status Following Aneurysmal Subarachnoid Hemorrhage: Comprehensive Stroke Center Analysis. *World Neurosurg*. 2024 May;185:e467-e474. doi: 10.1016/j.wneu.2024.02.056. Epub 2024 Feb 15. PubMed PMID: 38367859.
 9. Elahi C, Shaftel KA, **Cole TS**, Nickenig Vissoci JR, Little AS. h(global)-Index: A Novel Author-Level Measure of the Diffusion of Scientific Ideas Among High-, Low-, and Middle-Income Countries. *World Neurosurg*. 2024 Apr;184:e360-e366. doi: 10.1016/j.wneu.2024.01.130. Epub 2024 Jan 30. PubMed PMID: 38302003.
 10. Baranoski JF, Catapano JS, Garcia JH, **Cole TS**, Winkler EA, Rudy RF, Rutledge C, Srinivasan VM, Graffeo CS, Lawton MT, Wanebo JE. Occipital Artery to Middle Cerebral Artery Direct Bypass: A Salvage Revascularization Technique for Ischemic Moyamoya Disease. *World Neurosurg*. 2023 Nov;179:e549-e556. doi: 10.1016/j.wneu.2023.08.139. Epub 2023 Sep 6. PubMed PMID: 37683920.
 11. Baranoski JF, Koester SW, Catapano JS, Garcia JH, Pacult MA, Hognlund BK, Dabrowski SJ, Benner D, Winkler EA, **Cole TS**, Rutledge C, Srinivasan VM, Graffeo CS, Ducruet AF, Albuquerque FC, Lawton MT. Early Treatment of Ruptured Cerebral Arteriovenous Malformations: Analysis of Neurological Outcomes and Health Care Costs. *Neurosurgery*. 2024 Jan 1;94(1):212-216. doi: 10.1227/neu.0000000000002641. Epub 2023 Sep 4. PubMed PMID: 37665224.
 12. Catapano JS, Koester SW, Rumalla K, Rangel IC, Stonnington HO, Singh R, Memon A, Kimata AR, Winkler EA, Baranoski JF, **Cole TS**, Graffeo CS, Srinivasan VM, Jadhav AP, Ducruet AF, Albuquerque FC, Lawton MT. A Review of Preoperative Embolization Effectiveness in Patients With Arteriovenous Malformations. *Neurosurgery*. 2024 Jan 1;94(1):129-139. doi: 10.1227/neu.0000000000002629. Epub 2023 Jul 31. Review. PubMed PMID: 37522732.
 13. Baranoski JF, Catapano JS, Rutledge C, **Cole TS**, Majmundar N, Winkler EA, Srinivasan VM, Jadhav AP, Ducruet AF, Albuquerque FC. Endovascular Treatment of Cerebrovascular Lesions Using Nickel- or Nitinol-Containing Devices in Patients with Nickel Allergies. *AJNR Am J Neuroradiol*. 2023 Aug;44(8):939-942. doi: 10.3174/ajnr.A7936. Epub 2023 Jul 20. PubMed PMID: 37474263; PubMed Central PMCID: PMC10411833.
 14. Catapano JS, Koester SW, Bond KM, Srinivasan VM, Farhadi DS, Rumalla K, **Cole TS**, Baranoski JF, Winkler EA, Graffeo CS, Muñoz-Casabella A, Jadhav AP, Ducruet AF, Albuquerque FC, Lawton MT, Jha RM. Outcomes in Patients with Aneurysmal Subarachnoid Hemorrhage Receiving Sulfonylureas: A Propensity-Adjusted Analysis. *World Neurosurg*. 2023 Aug;176:e400-e407. doi: 10.1016/j.wneu.2023.05.073. Epub 2023 May 24. PubMed PMID: 37236313; PubMed Central PMCID: PMC11578856.
 15. Graffeo CS, Scherschinski L, Furey CG, **Cole TS**, Srinivasan VM, Lawton MT. Far Lateral Approach for Resection of a Calcifying Pseudoneoplasm of the Neuroaxis: 2-Dimensional Operative Video. *Oper Neurosurg*. 2023 Jun 1;24(6):e448. doi: 10.1227/ons.0000000000000662. Epub 2023 Feb 23. PubMed PMID: 36815782.
 16. Koester SW, Catapano JS, Rhodenhiser EG, Rudy RF, Winkler EA, Benner D, **Cole TS**, Baranoski JF, Srinivasan VM, Graffeo CS, Jha RM, Jadhav AP, Ducruet AF, Albuquerque FC, Lawton MT. Propensity-adjusted analysis of ultra-early aneurysmal subarachnoid hemorrhage treatment and patient outcomes. *Acta Neurochir (Wien)*. 2023 Apr;165(4):993-1000. doi: 10.1007/s00701-023-05497-7. Epub 2023 Jan 27. PubMed PMID: 36702969.
 17. Graffeo CS, Zavala B, **Cole TS**, Srinivasan VM, Lawton MT. Clip Reconstruction of a Previously Ruptured Basilar Bifurcation Aneurysm After Failure of Endovascular Coiling and Flow Diversion: 2-Dimensional Operative Video. *Oper Neurosurg*. 2023 Jun 1;24(6):e430. doi: 10.1227/ons.0000000000000617. Epub 2023 Jan 19. PubMed PMID: 36716057.
 18. Graffeo CS, Srinivasan VM, Scherschinski L, **Cole TS**, Lawton MT. When the Sewing Gets Tough- Intraoperative Salvage Techniques for Bypass: 2-Dimensional Operative Video. *Oper Neurosurg*. 2023 May 1;24(5):e377-e378. doi: 10.1227/ons.0000000000000598. Epub 2023 Jan 10. PubMed PMID: 36716038.
 19. Koester SW, **Cole TS**, Kimata AR, Ma KL, Benner D, Catapano JS, Rumalla K, Lawton MT, Ducruet AF, Albuquerque FC. Assessing the volume-outcome relationship of carotid artery stenting in nationwide

- administrative data: a challenge of patient population bias. *J Neurointerv Surg*. 2023 Nov;15(e2):e305-e311. doi: 10.1136/jnis-2022-019695. Epub 2022 Dec 20. PubMed PMID: 36539274.
20. Shafte KA, **Cole TS**, Little AS. In Reply: Nationwide Readmission Rates and Hospital Charges for Patients With Surgical Evacuation of Nontraumatic Subdural Hematomas: Part 1-Craniotomy. *Neurosurgery*. 2023 Mar 1;92(3):e65. doi: 10.1227/neu.0000000000002304. Epub 2022 Dec 15. PubMed PMID: 36729631.
 21. Catapano JS, Rumalla K, Koester SW, Winkler EA, Rudy RF, **Cole TS**, Baranoski JF, Graffeo CS, Srinivasan VM, Jha RM, Jadhav AP, Ducruet AF, Albuquerque FC, Lawton MT. Incidence and Prediction of Chronic Depression Following Aneurysmal Subarachnoid Hemorrhage: A Single-Center 17-Year Experience. *World Neurosurg*. 2023 Mar;171:e206-e212. doi: 10.1016/j.wneu.2022.11.120. Epub 2022 Nov 29. PubMed PMID: 36455851.
 22. **Cole TS**, Rudy RF, Faridmoayer E, Gandhi S, Cavallo C, Catapano JS, Jadhav AP, Lawton MT, Albuquerque FC, Ducruet AF. Relationship between cerebral vasospasm vascular territory and functional outcome after aneurysmal subarachnoid hemorrhage. *J Neurointerv Surg*. 2023 Oct;15(10):958-963. doi: 10.1136/jnis-2022-019016. Epub 2022 Nov 15. PubMed PMID: 36379702.
 23. Koester SW, Catapano JS, Rumalla K, Srinivasan VM, Rhodenhiser EG, Hartke JN, Benner D, Winkler EA, **Cole TS**, Baranoski JF, Jadhav AP, Ducruet AF, Albuquerque FC, Lawton MT. Analysis of the Weekend Effect at a High-Volume Center for the Treatment of Intracranial Aneurysms. *World Neurosurg*. 2023 Jan;169:e83-e88. doi: 10.1016/j.wneu.2022.10.054. Epub 2022 Oct 19. PubMed PMID: 36272725.
 24. Catapano JS, Srinivasan VM, De La Peña NM, Singh R, **Cole TS**, Wilkinson DA, Baranoski JF, Rutledge C, Pacult MA, Winkler EA, Jadhav AP, Ducruet AF, Albuquerque FC. Direct puncture of the superior ophthalmic vein for carotid cavernous fistulas: a 21-year experience. *J Neurointerv Surg*. 2023 Oct;15(10):948-952. doi: 10.1136/jnis-2022-019135. Epub 2022 Oct 19. Review. PubMed PMID: 36261279.
 25. Catapano JS, Winkler EA, Srinivasan VM, Dishion EL, Rutledge C, Baranoski JF, **Cole TS**, Rudy RF, Rumalla K, Zomaya MP, Jadhav AP, Ducruet AF, Albuquerque FC. Retained radial catheters associated with variant radial anatomy in neurointerventional procedures. *J Neurointerv Surg*. 2023 Sep;15(9):858-863. doi: 10.1136/jnis-2022-019004. Epub 2022 Sep 9. Review. PubMed PMID: 36190952.
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Book Chapters

1. **TS Cole**, MT Lawton. Surgical management of cerebral dural arteriovenous fistulas. *Cerebral Dural Arteriovenous Fistulas*, 105-124, 2021.
2. JS Catapano, **TS Cole**, FC Albuquerque. Hybrid surgical and endovascular treatment. *Cerebral Dural Arteriovenous Fistulas*, 125-134, 2021.
3. **Tyler S. Cole**, Mohsen Javadpour, M. Christopher Wallace, Michael T. Lawton. Surgical Management of Cranial Dural Arteriovenous Fistulas. *Schmidek and Sweet: Operative Neurosurgical Techniques*, Chapter 54, 627-647.e2
4. Michael T. Lawton, **Tyler S. Cole**, Anoop P. Patel, Sepideh Amin-Hanjani, Christopher S. Ogilvy. Surgical Management of Cavernous Malformations of the Central Nervous System. *Schmidek and Sweet: Operative Neurosurgical Techniques*, Chapter 55, 627-647.e2
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8. **Tyler S. Cole**, Martin J. Rutkowski, Peter Nakaji, Michael T. Lawton. Chapter 33: Tentorial and Posterior Fossa Dural Arteriovenous Malformations. *Neurosurgical Operative Atlas: Vascular Neurosurgery*, 3rd Edition.
9. Vasudeva V, Moses Z, **Cole TS**, Golorgorsky Y, and Lu Y. Chapter 14: Image Guidance for Spine Surgery. *Image-Guided Neurosurgery*. San Diego, CA: Elsevier, 2014. Print. ISBN: 978-0-12-800870-6.
10. Shah NH, **Cole T**, Musen MA. Chapter 9: Analyses using disease ontologies. *PLoS Comput Biol.* 2012;8(12):e1002827. PMID: 23300417.

Patents/Intellectual Property

Pending

- PCT/US2020/064305: Systems and methods for a catheter stabilization and occluder apparatus

Provisional

- 63/092,034: Microvascular anastomotic coupler ring delivery device for deep surgical corridors
- 63/133,445: Systems and methods for multi-vessel coupling

- 63/141,132: Systems and methods for aneurysm casting

Past Volunteer Experience

2011–2013	<i>Co-leader, Stanford Screen Team, various sites in Bay Area.</i> Organized students to offer basic health services including BMI, blood pressure, and blood glucose assessment at public events including flea markets and holiday festivals. Our goal was to identify patients with common disease risk factors and connect them to primary care providers.
2013–2014	<i>Class Representative, Stanford School of Medicine.</i> Elected by class members to act as a liaison between the members of my class and the Governing Council, as well as organize class events and disperse class funds.
2011–present	<i>Arbor Free Clinic, Stanford, CA.</i> Volunteered throughout medical school, helping to provide medical care to the uninsured as a preclinical and clinical student.
2012	<i>Flu Crew, Stanford, CA.</i> Administered flu vaccinations to students and uninsured patients both on Stanford campus and on farms in the surrounding area. Also created informational materials.
2012	<i>Stanford Medical Youth Science Program - Discovering Medicine at Stanford, Stanford, CA.</i> Volunteered with high school students from communities under-represented in medicine to teach anatomy and discuss the medical field and medical school admissions in general.
2012	<i>Stanford Healthcare Consulting Group, Stanford, CA.</i> Joined a team to assess blood product utilization throughout Stanford hospital in order to identify areas for delivery and allocation optimization. I was primarily focused on the data analysis and interpretation.
2006–2009	<i>Alternative Spring Break, San Juan, TX; Chicago, IL; upstate NY.</i> As both site leader and participant, I sought to spend my spring breaks as an undergraduate engaged in community projects.
2006–2009	<i>Project Suyana, Ann Arbor, MI; Southern Peru.</i> Selected by group members in 2009 to serve as the head of the University of Michigan student-run group, which focused on projects drawing upon tenets of small-scale, sustainable design to improve health in rural Southern Peru.
2006–2007	<i>Ambatana Multicultural Council, Ann Arbor, MI.</i> Elected as a representative, I served on the council to promote intercultural understanding in dormitory-wide events and partnering with student groups. Awarded Best Multicultural Program of the Year (for Ramadan).

Additional

Hobbies	Sailing - bareboat cruising certified; Trail running; Statistical programming; Spearfishing; Bowhunting; Soccer
Language proficiency	Conversational and medical fluency in Spanish. Studied Linguistics, Art History, Film History, and Semiotics in Spanish at Universidad de Guanajuato, Mexico in 2008. Extensive travel in Central and South America.
Programming languages	R, SAS, SQL, Python