

Department of Neurological Surgery
University of Washington, Seattle WA
2022 Q1
Faculty, Fellow, and Resident Publications

PEER REVIEWED PUBLICATIONS

1. Vanent KN, Federico EM, Bass DJ, Barros G, Keen J, **Levitt MR**. Nickels and tines: the myth of nickel allergy in intracranial stents. J Neurointerv Surg. 2022. Epub 2022/01/07. doi: 10.1136/neurintsurg-2021-018365. PubMed PMID: 34987071.
2. Cruz MJ, Nieblas-Bedolla E, Young CC, Feroze AH, Williams JR, **Ellenbogen RG**, **Levitt MR**. In Reply: United States Medicolegal Progress and Innovation in Telemedicine in the Age of COVID-19: A Primer for Neurosurgeons. Neurosurgery. 2022;90(2):e53. Epub 2022/01/08. doi: 10.1227/neu.0000000000001798. PubMed PMID: 34995233.
3. Zamora M, Toth R, Morgante F, Ottaway J, Gillbe T, Martin S, Lamb G, Noone T, Benjaber M, Nairac Z, Sehgal D, Constandinou TG, **Herron J**, Aziz TZ, Gillbe I, Green AL, Pereira EAC, Denison T. DyNeuMo Mk-1: Design and pilot validation of an investigational motion-adaptive neurostimulator with integrated chronotherapy. Exp Neurol. 2022;351:113977. Epub 2022/01/13. doi: 10.1016/j.expneurol.2022.113977. PubMed PMID: 35016994.
4. Eaton JC, Greil ME, Nistal D, Caldwell DJ, Robinson E, Aljuboory Z, **Temkin N**, **Bonow RH**, **Chesnut RM**. Complications associated with early cranioplasty for patients with traumatic brain injury: a 25-year single-center analysis. J Neurosurg. 2022;1-6. Epub 2022/01/22. doi: 10.3171/2021.11.Jns211557. PubMed PMID: 35061995.
5. Aljuboory Z, Eaton J, Carroll K, **Levitt M**, **Kim L**. Early ambulation after transfemoral diagnostic cerebral angiography: a pilot study. BMC Neurol. 2022;22(1):34. Epub 2022/01/26. doi: 10.1186/s12883-022-02561-0. PubMed PMID: 35073871; PubMed Central PMCID: PMC8785545.
6. Samejima S, Caskey CD, Inanici F, Shrivastav SR, Brighton LN, Pradarelli J, Martinez V, Steele KM, **Saigal R**, Moritz CT. Multisite Transcutaneous Spinal Stimulation for Walking and Autonomic Recovery in Motor-Incomplete Tetraplegia: A Single-Subject Design. Phys Ther. 2022;102(1). Epub 2022/01/26. doi: 10.1093/ptj/pzab228. PubMed PMID: 35076067; PubMed Central PMCID: PMC8788019.
7. Machamer J, **Temkin N**, Dikmen S, Nelson LD, Barber J, Hwang P, Boase K, Stein MB, Sun X, Giacino J, McCrea MA, Taylor SR, Jain S, Manley G; **TRACK-TBI Investigators**. Symptom Frequency and Persistence in the First Year after Traumatic Brain Injury: A TRACK-TBI Study. J Neurotrauma. 2022;39(5-6):358-70. Epub 2022/01/27. doi: 10.1089/neu.2021.0348. PubMed PMID: 35078327; PubMed Central PMCID: PMC8892966.

8. Rajesh AE, Rubinstein JT, **Ferreira M**, **Patel AP**, Bly RA, Kohlberg GD. Automated objective surgical planning for lateral skull base tumors. *Int J Comput Assist Radiol Surg*. 2022;17(3):427-36. Epub 2022/01/29. doi: 10.1007/s11548-022-02564-9. PubMed PMID: 35089486.

9. Saal-Zapata G, Ghodke B, **Walker M**, Pregúntegui-Loayza I, Rodríguez-Varela R. Endovascular treatment of medium and large intracranial aneurysms with large volume coils: A single-center experience. *Surg Neurol Int*. 2022;13:9. Epub 2022/02/08. doi: 10.25259/sni_947_2021. PubMed PMID: 35127209; PubMed Central PMCID: PMCPCMC8813608.

10. Scherpelz KP, Crotty EE, Paulson VA, Lockwood CM, Leary SES, **Ellenbogen RG**, **Lee A**, Ermoian RP, Vitanza NA, Cole BL. Two cases of pineal anlage tumor with molecular analysis. *Pediatr Blood Cancer*. 2022;69(4):e29596. Epub 2022/02/08. doi: 10.1002/pbc.29596. PubMed PMID: 35129878.

11. Felix B, Kalatar SB, Moatz B, **Hofstetter C**, Karsy M, Parr R, Gibby W. Augmented Reality Spine Surgery Navigation: Increasing Pedicle Screw Insertion Accuracy for Both Open and Minimally Invasive Spine Surgeries. *Spine (Phila Pa 1976)*. 2022. Epub 2022/02/09. doi: 10.1097/brs.0000000000004338. PubMed PMID: 35132049.

12. Parada CA, El-Ghazali FM, Togliola D, Ruzevick J, McAvoy M, Emerson S, Karasozen Y, Busald T, Nazem AA, Suranowitz SM, Shalhub S, Marshall DA, Gonzalez-Cuyar LF, Dorschner MO, **Ferreira M Jr**. Somatic Mosaicism of a PDGFRB Activating Variant in Aneurysms of the Intracranial, Coronary, Aortic, and Radial Artery Vascular Beds. *J Am Heart Assoc*. 2022;11(4):e024289. Epub 2022/02/15. doi: 10.1161/jaha.121.024289. PubMed PMID: 35156398.

13. Zhang J, Li X, Zhao B, Zhang J, Sun B, Wang L, Tian J, Mossa-Basha M, **Kim LJ**, Yan J, Wan J, Xu J, Zhou Y, Zhao H, Zhu C. Irregular pulsation of aneurysmal wall is associated with symptomatic and ruptured intracranial aneurysms. *J Neurointerv Surg*. 2022. Epub 2022/02/17. doi: 10.1136/neurintsurg-2021-018381. PubMed PMID: 35169029.

14. Schneider ALC, Huie JR, Boscardin WJ, Nelson L, Barber JK, Yaffe K, Diaz-Arrastia R, Ferguson AR, Kramer J, Jain S, **Temkin N**, Yuh E, Manley GT, Gardner RC; **TRACK-TBI Investigators**. Cognitive Outcome 1 Year After Mild Traumatic Brain Injury: Results From the TRACK-TBI Study. *Neurology*. 2022;98(12):e1248-e61. Epub 2022/02/18. doi: 10.1212/wnl.0000000000200041. PubMed PMID: 35173018; PubMed Central PMCID: PMCPCMC8967334.

15. Jabbour P, Dmytriw AA, Sweid A, Piotin M, Bekelis K, Sourour N, Raz E, Linfante I, Dabus G, Kole M, Martínez-Galdámez M, Nimjee SM, Lopes DK, Hassan AE, Kan P, Ghorbani M, **Levitt MR**, Escalard S, Missios S, Shapiro M, Clarençon F, Elhorany M, Vela-Duarte D, Tahir RA, Youssef PP, Pandey AS, Starke RM, El Naamani K, Abbas R, Hammoud B, Mansour OY, Galvan J, Billingsley JT, Mortazavi A, Walker M, Dibas M, Settecasse F, Heran MKS, Kuhn AL, Puri AS, Menon BK,

- Sivakumar S, Mowla A, D'Amato S, Zha AM, Cooke D, Goyal M, Wu H, Cohen J, Turkel-Parrella D, Xavier A, Waqas M, Tutino VM, Siddiqui A, Gupta G, Nanda A, Khandelwal P, Tiu C, Portela PC, Perez de la Ossa N, Urrea X, de Lera M, Arenillas JF, Ribo M, Requena M, Piano M, Pero G, De Sousa K, Al-Mufti F, Hashim Z, Nayak S, Renieri L, Aziz-Sultan MA, Nguyen TN, Feineigle P, Patel AB, Siegler JE, Badih K, Grossberg JA, Saad H, Gooch MR, Herial NA, Rosenwasser RH, Tjournakaris S, Tiwari A. Characteristics of a COVID-19 Cohort With Large Vessel Occlusion: A Multicenter International Study. *Neurosurgery*. 2022. Epub 2022/03/04. doi: 10.1227/neu.0000000000001902. PubMed PMID: 35238817.
16. **Levitt MR**, Vanent KN, Federico EM, Bass DJ, Barros G, Keen J. Response to: Correspondence on "Nickels and tines: the myth of nickel allergy in intracranial stents" by Apostolos et al. *J Neurointerv Surg*. 2022. Epub 2022/03/04. doi: 10.1136/neurintsurg-2022-018859. PubMed PMID: 35236769.
 17. Aljuboori Z, McGrath M, **Levitt M**, Moe K, **Chestnut R**, **Bonow R**. A case series of crossbow injury to the head highlighting the importance of an interdisciplinary management approach. *Surg Neurol Int*. 2022;13:60. Epub 2022/03/05. doi: 10.25259/sni_1166_2021. PubMed PMID: 35242426; PubMed Central PMCID: PMC8888290.
 18. Arshad M, Odell T, Fiani B, Hadi H, Johnson E, Li C, *Ogunlade J*, Musch B, Schiraldi M. Intraoperative localization and "snowman" muscle pledget repair for ventral dural defect in a case of spontaneous intracranial hypotension. *Surg Neurol Int*. 2022;13:39. Epub 2022/03/05. doi: 10.25259/sni_1195_2021. PubMed PMID: 35242405; PubMed Central PMCID: PMC8888192.
 19. **Mac Donald CL**, Barber J, Johnson A, Patterson J, **Temkin N**. Global Disability Trajectories Over the First Decade Following Combat Concussion. *J Head Trauma Rehabil*. 2022;37(2):63-70. Epub 2022/03/09. doi: 10.1097/htr.0000000000000738. PubMed PMID: 35258037; PubMed Central PMCID: PMC8908784.
 20. Campagnola L, Seeman SC, Chartrand T, Kim L, Hoggarth A, Gamlin C, , Ito S, Trinh J, Davoudian P, Radaelli C, Kim MH, Hage T, Braun T, Alfiler L, Andrade J, Bohn P, Dalley R, Henry A, Kebede S, Alice M, Sandman D, Williams G, Larsen R, Teeter C, Daigle TL, Berry K, Dotson N, Enstrom R, Gorham M, Hupp M, Dingman Lee S, Ngo K, Nicovich PR, Potekhina L, Ransford S, Gary A, Goldy J, McMillen D, Pham T, Tieu M, Siverts L, Walker M, Farrell C, Schroedter M, Slaughterbeck C, Cobb C, **Ellenbogen R**, Gwinn RP, Keene CD, **Ko AL**, **Ojemann JG**, **Silbergeld DL**, Carey D, Casper T, Crichton K, Clark M, Dee N, Ellingwood L, Gloe J, Kroll M, Sulc J, Tung H, Wadhwani K, Brouner K, Egdorf T, Maxwell M, McGraw M, Pom CA, Ruiz A, Bomben J, Feng D, Hejazinia N, Shi S, Szafer A, Wakeman W, Phillips J, Bernard A, Esposito L, D'Orazi FD, Sunkin S, Smith K, Tasic B, Arkhipov A, Sorensen S, Lein E, Koch C, Murphy G, Zeng H, Jarsky T. Local connectivity and synaptic dynamics in mouse and human neocortex. *Science*. 2022;375(6585):eabj5861. Epub 2022/03/11. doi: 10.1126/science.abj5861. PubMed PMID: 35271334.
 21. Barros G, **Kim LJ**. Editorial. Perspective on flow diverting stents for posterior circulation

aneurysms. *J Neurosurg.* 2022;1-2. Epub 2022/03/12. doi: 10.3171/2021.12.Jns212760. PubMed PMID: 35276649.

22. **Williams MA**, Nagel SJ, Golomb J, Jensen H, Dasher NA, Holubkov R, Edwards RJ, Luciano MG, Zwimpfer TJ, Katzen H, Moghekar A, Wisoff JH, McKhann GM, Hamilton MG. Safety and effectiveness of the assessment and treatment of idiopathic normal pressure hydrocephalus in the Adult Hydrocephalus Clinical Research Network. *J Neurosurg.* 2022;1-13. Epub 2022/03/12. doi: 10.3171/2022.1.Jns212782. PubMed PMID: 35276651.
23. Severs LJ, Vlemincx E, **Ramirez JM**. The psychophysiology of the sigh: I: The sigh from the physiological perspective. *Biol Psychol.* 2022;170:108313. Epub 2022/03/16. doi: 10.1016/j.biopsycho.2022.108313. PubMed PMID: 35288214.
24. Huang J, Yap N, Walter M, Green A, Smith C, Johnson J, **Saigal R**. 3D-Printed Polypyrrole Microneedle Arrays for Electronically Controlled Transdural Drug Release. *ACS Biomater Sci Eng.* 2022;8(4):1544-53. Epub 2022/03/17. doi: 10.1021/acsbiomaterials.1c01305. PubMed PMID: 35294162.
25. Yuwapattanawong K, Chanthima P, Thamjamrassri T, Keen J, Qiu Q, Fong C, Robinson EF, Dhulipala VB, Walters AM, Athiraman U, **Kim LJ**, Vavilala MS, **Levitt MR**, Lele AV. The Association Between Illness Severity Scores and In-hospital Mortality After Aneurysmal Subarachnoid Hemorrhage. *J Neurosurg Anesthesiol.* 2022. Epub 2022/03/18. doi: 10.1097/ana.0000000000000840. PubMed PMID: 35297396.
26. Chu J, Jensen H, Holubkov R, Krieger MD, Kulkarni AV, Riva-Cambrin J, Rozzelle CJ, Limbrick DD, Wellons JC, **Browd SR**, Whitehead WE, Pollack IF, Simon TD, Tamber MS, **Hauptman JS**, Pindrik J, Naftel RP, McDonald PJ, Hankinson TC, Jackson EM, Rocque BG, Reeder R, Drake JM, Kestle JRW; Hydrocephalus Clinical Research Network. The Hydrocephalus Clinical Research Network quality improvement initiative: the role of antibiotic-impregnated catheters and vancomycin wound irrigation. *J Neurosurg Pediatr.* 2022;1-8. Epub 2022/03/19. doi: 10.3171/2022.2.Peds2214. PubMed PMID: 35303708.
27. Kals M, Kunzmann K, Parodi L, Radmanesh F, Wilson L, Izzy S, Anderson CD, Puccio AM, Okonkwo DO, **Temkin N**, Steyerberg EW, Stein MB, Manley GT, Maas AIR, Richardson S, Diaz-Arrastia R, Palotie A, Ripatti S, Rosand J, Menon DK; Genetic Associations In Neurotrauma (GAIN) Consortium (with contribution from the CENTER-TBI, TRACK-TBI, CABI, MGB, and TBicare studies). A genome-wide association study of outcome from traumatic brain injury. *EBioMedicine.* 2022;77:103933. Epub 2022/03/19. doi: 10.1016/j.ebiom.2022.103933. PubMed PMID: 35301180; PubMed Central PMCID: PMC8927841.
28. **Bonow RH**, Vavilala MS. Disparities in neurosurgical care for traumatic brain injury. *Lancet Neurol.* 2022;21(5):398-9. Epub 2022/03/20. doi: 10.1016/s1474-4422(22)00094-1. PubMed

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29. Magnus BE, Balsis S, Giacino J, McCrea M, **Temkin N**, Whyte J, Manley GT, Nelson LD. Improving the Precision of the Glasgow Outcome Scale-Extended Using Item Response Theory: A TRACK-TBI Study. *J Neurotrauma*. 2022. Epub 2022/03/24. doi: 10.1089/neu.2021.0421. PubMed PMID: 35317604.
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31. Nguyen T, Sharma M, Crooks P, Patel PV, **Bonow RH**, Creutzfeldt CJ, Wahlster S. Between Scylla and Charybdis: risks of early therapeutic anticoagulation for venous thromboembolism after acute intracranial hemorrhage. *Br J Neurosurg*. 2022;1-7. Epub 2022/03/29. doi: 10.1080/02688697.2022.2054944. PubMed PMID: 35343356.
32. Vellayappan BA, Venur VA, Mayr NA, **Hofstetter CP**, Lo SS, **Amin AG**. Commentary: Spine Stereotactic Body Radiotherapy for Prostate Cancer Metastases and the Impact of Hormone Sensitivity Status on Local Control. *Neurosurgery*. 2022. Epub 2022/03/29. doi: 10.1227/neu.0000000000001954. PubMed PMID: 35343465.