

**Department of Neurological Surgery  
University of Washington, Seattle, WA  
2020 Faculty, Fellow, and Resident Publications  
Peer Reviewed: 176  
Books, Book Chapters: 6  
Other: 1**

Faculty: **Bold**; Fellows: *Italics*; Residents: Underlined

## PUBMED PUBLICATIONS

1. Abecassis IJ, Cordy B, Durfy S, Andre JB, **Levitt MR, Ellenbogen RG, Silbergeld DL, Ko AL**. Evaluating angioarchitectural characteristics of glial and metastatic brain tumors with conventional magnetic resonance imaging. J Clin Neurosci. 2020;76:46-52. Epub 2020/04/22. doi: 10.1016/j.jocn.2020.04.051. PubMed PMID: 32312627.
2. Abecassis IJ, Sen RD, **Ellenbogen RG, Sekhar LN**. Developing microsurgical milestones for psychomotor skills in neurological surgery residents as an adjunct to operative training: the home microsurgery laboratory. J Neurosurg. 2020:1-11. Epub 2020/09/05. doi: 10.3171/2020.5.Jns201590. PubMed PMID: 32886917.
3. Abecassis IJ, Zeeshan Q, Ghodke BV, **Levitt MR, Ellenbogen RG, Sekhar LN**. Surgical Versus Endovascular Management of Ruptured and Unruptured Intracranial Aneurysms: Emergent Issues and Future Directions. World Neurosurg. 2020;136:17-27. Epub 2020/01/04. doi: 10.1016/j.wneu.2019.12.127. PubMed PMID: 31899398.
4. Abecassis ZA, Nistal DA, Abecassis IJ, Sen RD, **Levitt MR**. Ghost Aneurysms in Acute Subdural Hematomas: A Report of Two Cases. World Neurosurg. 2020;139:e159-e65. Epub 2020/04/10. doi: 10.1016/j.wneu.2020.03.175. PubMed PMID: 32272269.
5. Adams JC, Bell PD, Bodine SC, Brooks HL, Bunnett N, Joe B, Keehan KH, Kleyman TR, Marette A, Morty RE, **Ramírez JM**, Thomsen MB, Yates BJ, Zucker IH. An American Physiological Society cross-journal Call for Papers on "Deconstructing Organs: Single-Cell Analyses, Decellularized Organs, Organoids, and Organ-on-a-Chip Models". Am J Physiol Lung Cell Mol Physiol. 2020;319(2):L266-L72. Epub 2020/07/02. doi: 10.1152/ajplung.00311.2020. PubMed PMID: 32609556; PubMed Central PMCID: PMC7473938.
6. Agtarap S, Kramer MD, Campbell-Sills L, Yuh E, Mukherjee P, Manley GT, McCrea MA, Dikmen S, Giacino JT, Stein MB, Nelson LD, **TRACK-TBI Investigators**. Invariance of the Bifactor Structure of Mild Traumatic Brain Injury (mTBI) Symptoms on the Rivermead Postconcussion Symptoms Questionnaire Across Time, Demographic Characteristics, and Clinical Groups: A TRACK-TBI Study. Assessment. 2020:1073191120913941. Epub 2020/04/25. doi: 10.1177/1073191120913941. PubMed PMID: 32326739; PubMed Central PMCID: PMC7584771.
7. Agtarap SD, Campbell-Sills L, Jain S, Sun X, Dikmen S, Levin H, McCrea MA, Mukherjee P, Nelson LD, Temkin N, Yuh EL, Giacino JT, Manley GT, Stein MB, **TRACK-TBI Investigators**. Satisfaction with Life

after Mild Traumatic Brain Injury: A TRACK-TBI Study. *J Neurotrauma*. 2020. Epub 2020/10/28. doi: 10.1089/neu.2020.7055. PubMed PMID: 33107371.

8. Al Kasab S, Almallouhi E, Alawieh A, **Levitt MR**, Jabbour P, Sweid A, Starke RM, Saini V, Wolfe SQ, Fargen KM, Arthur AS, Goyal N, Pandhi A, Fragata I, Maier I, Matouk C, Grossberg JA, Howard BM, Kan P, Hafeez M, Schirmer CM, Crowley RW, Joshi KC, Tjoumakaris SI, Chowdry S, Ares W, Ogilvy C, Gomez-Paz S, Rai AT, Mokin M, Guerrero W, Park MS, Mascitelli JR, Yoo A, Williamson R, Grande AW, Crosa RJ, Webb S, Psychogios MN, Ducruet AF, Holmstedt CA, Ringer AJ, Spiotta AM. International experience of mechanical thrombectomy during the COVID-19 pandemic: insights from STAR and ENRG. *J Neurointerv Surg*. 2020;12(11):1039-44. Epub 2020/08/28. doi: 10.1136/neurintsurg-2020-016671. PubMed PMID: 32843359; PubMed Central PMCID: PMC7453763.

9. Alawieh A, Al Kasab S, Almallouhi E, **Levitt MR**, Jabbour PM, Sweid A, Starke RM, Saini V, Fargen KM, Wolfe SQ, Arthur AS, Goyal N, Fragata I, Maier I, Matouk C, Howard BM, Grossberg JA, Cawley M, Kan P, Hafeez M, Singer J, Crowley RW, Joshi KC, Brinjikji W, Savastano LE, Ogilvy CS, Gomez-Paz S, Levy E, Waqas M, Mokin M, Veznedaroglu E, Binning M, Mascitelli J, Yoo AJ, Soomro J, Williamson RW, Chalhoub RM, Grande A, Crosa R, Webb S, Psychogios M, Ducruet AF, Albuquerque FC, Majmundar N, Turner R, Casagrande W, Al-Mufti F, De Leacy R, Mocco J, Fessler RD, Osanai T, Chowdhry SA, Park M, Schirmer CM, Ringer A, Spiotta AM. Letter: An International Investigation Into the COVID-19 Pandemic and Workforce Depletion in Highly Specialized Neurointerventional Units - Insights From Stroke Thrombectomy and Aneurysm Registry and Endovascular Neurosurgery Research Group. *Neurosurgery*. 2020. Epub 2020/09/08. doi: 10.1093/neuros/nyaa415. PubMed PMID: 32893855; PubMed Central PMCID: PMC7499731.

10. Alexander J, LaPlant QC, Pattwell SS, Szulzewsky F, Cimino PJ, Caruso FP, Pugliese P, Chen Z, Chardon F, Hill AJ, Spurrell C, Ahrendsen D, Pietras A, Starita LM, Hambarzumyan D, Iavarone A, Shendure J, **Holland EC**. Multimodal single-cell analysis reveals distinct radioresistant stem-like and progenitor cell populations in murine glioma. *Glia*. 2020;68(12):2486-502. Epub 2020/07/06. doi: 10.1002/glia.23866. PubMed PMID: 32621641; PubMed Central PMCID: PMC7586969.

11. *Aljuboori ZS, Young CC, Srinivasan VM, Kellogg RT, Quon JL, Alshareef MA, Chen SH, Ivan M, Grant GA, McEvoy SD, Davanzo JR, Majid S, Durfy S, Levitt MR, Sieg EP, Ellenbogen RG, Nauta HJ*. Early Effects of COVID-19 Pandemic on Neurosurgical Training in the United States: A Case Volume Analysis of 8 Programs. *World Neurosurg*. 2021;145:e202-e8. Epub 2020/10/17. doi: 10.1016/j.wneu.2020.10.016. PubMed PMID: 33065350; PubMed Central PMCID: PMC7550889.

12. Allen K, Anderson TM, Chajewska U, **Ramirez JM**, Mitchell EA. Factors associated with age of death in sudden unexpected infant death. *Acta Paediatr*. 2021;110(1):174-83. Epub 2020/04/19. doi: 10.1111/apa.15308. PubMed PMID: 32304589; PubMed Central PMCID: PMC7574313.

13. Almallouhi E, Al Kasab S, Sattur MG, Lena J, Jabbour PM, Sweid A, Chalouhi N, Gooch MR, Starke RM, Peterson EC, Yavagal DR, Chen SH, Li Y, Gross BA, Tonetti DA, Zussman BM, Stone JG, Jadhav AP, Jankowitz BT, Young CC, Lim DH, **Levitt MR**, Osbun JW, Spiotta AM. Incorporation of transradial approach in neuroendovascular procedures: defining benchmarks for rates of complications and conversion to femoral access. *J Neurointerv Surg*. 2020;12(11):1122-6. Epub 2020/03/29. doi: 10.1136/neurintsurg-2020-015893. PubMed PMID: 32217626.

14. Anderson TM, Allen K, **Ramirez JM**, Mitchell EA. Circadian variation in sudden unexpected infant death in the United States. *Acta Paediatr.* 2020. Epub 2020/12/01. doi: 10.1111/apa.15695. PubMed PMID: 33251652.
15. Arora S, Pattwell SS, **Holland EC**, Bolouri H. Variability in estimated gene expression among commonly used RNA-seq pipelines. *Sci Rep.* 2020;10(1):2734. Epub 2020/02/19. doi: 10.1038/s41598-020-59516-z. PubMed PMID: 32066774; PubMed Central PMCID: PMC7026138.
16. Barkley AS, Medina-Beckwith J, Sothea S, Pak S, Durfy SJ, Lele AV. Teaching the Emergency Neurologic Life Support Course at Two Major Hospitals in Phnom Penh, Cambodia. *World Neurosurg.* 2020;141:e686-e90. Epub 2020/06/12. doi: 10.1016/j.wneu.2020.05.275. PubMed PMID: 32525088.
17. Barkley AS, Sullivan LT, Gibson AW, Camacho D, Barber JK, **Ko AL**, **Silbergeld DL**, **Ravanpay AC**. Stereotactic Brain Biopsy Hemorrhage Risk Factors and Implications for Postoperative Care at a Single Institution: An Argument For Postoperative Imaging. *World Neurosurg.* 2020;144:e807-e12. Epub 2020/09/22. doi: 10.1016/j.wneu.2020.09.084. PubMed PMID: 32956884.
18. Bass DJ, **Lee A**, **Browd SR**, **Ellenbogen RG**, **Hauptman JS**. Medicolegal issues in abusive head trauma for the pediatric neurosurgeon. *Neurosurg Focus.* 2020;49(5):E23. Epub 2020/11/02. doi: 10.3171/2020.8.Focus20599. PubMed PMID: 33130608.
19. Bass DJ, Shurtleff H, Warner M, Knott D, Poliakov A, Friedman S, Collins MJ, Lopez J, Lockrow JP, Novotny EJ, **Ojemann JG**, **Hauptman JS**. Awake Mapping of the Auditory Cortex during Tumor Resection in an Aspiring Musical Performer: A Case Report. *Pediatr Neurosurg.* 2020:1-8. Epub 2020/12/02. doi: 10.1159/000509328. PubMed PMID: 33260181.
20. Bobola MS, Chen L, Ezeokeke CK, Olmstead TA, Nguyen C, Sahota A, Williams RG, **Mourad PD**. Transcranial focused ultrasound, pulsed at 40 Hz, activates microglia acutely and reduces A $\beta$  load chronically, as demonstrated in vivo. *Brain Stimul.* 2020;13(4):1014-23. Epub 2020/05/11. doi: 10.1016/j.brs.2020.03.016. PubMed PMID: 32388044; PubMed Central PMCID: PMC7308193.
21. Bohm AK, DePetro J, Binding CE, Gerber A, Chahley N, Berger ND, Ware M, Thomas K, Senapathi U, Bukhari S, Chen C, Chahley E, Grisdale C, Lawn S, Yu Y, Wong R, Shen Y, Omairi H, Mirzaei R, Alshatti N, Pedersen H, Yong W, Weiss S, Chan J, Cimino PJ, Kelly J, Jones S, **Holland E**, Blough M, Cairncross G. In vitro modeling of glioblastoma initiation using PDGF-AA and p53-null neural progenitors. *Neuro Oncol.* 2020;22(8):1150-61. Epub 2020/04/17. doi: 10.1093/neuonc/noaa093. PubMed PMID: 32296841; PubMed Central PMCID: PMC7594559.
22. **Bonow RH**. Prehospital Plasma Resuscitation in Patients With Traumatic Brain Injury: PAMPing the Brain. *JAMA Netw Open.* 2020;3(10):e2017590. Epub 2020/10/16. doi: 10.1001/jamanetworkopen.2020.17590. PubMed PMID: 33057639.
23. Brat DJ, Aldape K, Colman H, Figarella-Branger D, Fuller GN, Giannini C, **Holland EC**, Jenkins RB, Kleinschmidt-DeMasters B, Komori T, Kros JM, Louis DN, McLean C, Perry A, Reifenberger G, Sarkar C, Stupp R, van den Bent MJ, von Deimling A, Weller M. cIMPACT-NOW update 5: recommended grading criteria and terminologies for IDH-mutant astrocytomas. *Acta Neuropathol.* 2020;139(3):603-8. Epub 2020/01/31. doi: 10.1007/s00401-020-02127-9. PubMed PMID: 31996992.

24. Brempelis KJ, Cowan CM, Kreuser SA, Labadie KP, Prieskorn BM, Lieberman NAP, **Ene CI**, Moyes KW, Chinn H, DeGolier KR, Matsumoto LR, Daniel SK, Yokoyama JK, Davis AD, Hoglund VJ, Smythe KS, Balcaitis SD, Jensen MC, **Ellenbogen RG**, Campbell JS, Pierce RH, **Holland EC**, Pillarisetty VG, **Crane CA**. Genetically engineered macrophages persist in solid tumors and locally deliver therapeutic proteins to activate immune responses. *J Immunother Cancer*. 2020;8(2). Epub 2020/10/30. doi: 10.1136/jitc-2020-001356. PubMed PMID: 33115946; PubMed Central PMCID: PMC7594542.
25. Burkhardt JK, Srinivasan V, Srivatsan A, Albuquerque F, Ducruet AF, Hendricks B, Gross BA, Jankowitz BT, Thomas AJ, Ogilvy CS, Maragos GA, Enriquez-Marulanda A, Crowley RW, **Levitt MR**, **Kim LJ**, Griessenauer CJ, Schirmer CM, Dalal S, Piper K, Mokin M, Winkler EA, Abla AA, McDougall C, Birnbaum L, Mascitelli J, Litao M, Tanweer O, Riina H, Johnson J, Chen S, Kan P. Multicenter Postmarket Analysis of the Neuroform Atlas Stent for Stent-Assisted Coil Embolization of Intracranial Aneurysms. *AJNR Am J Neuroradiol*. 2020;41(6):1037-42. Epub 2020/05/30. doi: 10.3174/ajnr.A6581. PubMed PMID: 32467183; PubMed Central PMCID: PMC7342754.
26. Caldwell DJ, Cronin JA, Rao RPN, Collins KL, Weaver KE, **Ko AL**, **Ojemann JG**, Kutz JN, Brunton BW. Signal recovery from stimulation artifacts in intracranial recordings with dictionary learning. *J Neural Eng*. 2020;17(2):026023. Epub 2020/02/28. doi: 10.1088/1741-2552/ab7a4f. PubMed PMID: 32103828; PubMed Central PMCID: PMC7333778.
27. *Carr DA*, *Abecassis IJ*, **Hofstetter CP**. Full endoscopic unilateral laminotomy for bilateral decompression of the cervical spine: surgical technique and early experience. *J Spine Surg*. 2020;6(2):447-56. Epub 2020/07/14. doi: 10.21037/jss.2020.01.03. PubMed PMID: 32656382; PubMed Central PMCID: PMC7340835.
28. Carroll MS, **Ramirez JM**, Weese-Mayer DE. Diurnal variation in autonomic regulation among patients with genotyped Rett syndrome. *J Med Genet*. 2020;57(11):786-93. Epub 2020/03/12. doi: 10.1136/jmedgenet-2019-106601. PubMed PMID: 32156713.
29. Castaño-Candamil S, Ferleger BI, Haddock A, Cooper SS, Herron J, **Ko A**, Chizeck HJ, Tangermann M. A Pilot Study on Data-Driven Adaptive Deep Brain Stimulation in Chronically Implanted Essential Tremor Patients. *Front Hum Neurosci*. 2020;14:541625. Epub 2020/12/01. doi: 10.3389/fnhum.2020.541625. PubMed PMID: 33250727; PubMed Central PMCID: PMC7674800.
30. **Chesnut R**, Aguilera S, Buki A, Bulger E, Citerio G, Cooper DJ, Arrastia RD, Diringier M, Figaji A, Gao G, Geocadin R, Ghajar J, Harris O, Hoffer A, Hutchinson P, Joseph M, Kitagawa R, Manley G, Mayer S, Menon DK, Meyfroidt G, Michael DB, Oddo M, Okonkwo D, Patel M, Robertson C, Rosenfeld JV, Rubiano AM, Sahuquillo J, Servadei F, Shutter L, Stein D, Stocchetti N, Taccone FS, Timmons S, Tsai E, Ullman JS, Vespa P, Videtta W, Wright DW, Zammit C, Hawryluk GWJ. A management algorithm for adult patients with both brain oxygen and intracranial pressure monitoring: the Seattle International Severe Traumatic Brain Injury Consensus Conference (SIBICC). *Intensive Care Med*. 2020;46(5):919-29. Epub 2020/01/23. doi: 10.1007/s00134-019-05900-x. PubMed PMID: 31965267; PubMed Central PMCID: PMC7210240.
31. **Chesnut RM**, **Temkin N**, Videtta W, Petroni G, Lujan S, Pridgeon J, Dikmen S, Chaddock K, Barber J, Machamer J, Guadagnoli N, Hendrickson P, Aguilera S, Alanis V, Bello Quezada ME, Bautista Coronel E, Bustamante LA, Cacciatori AC, Carricondo CJ, Carvajal F, Davila R, Dominguez M, Figueroa Melgarejo JA,

Fillipi MM, Godoy DA, Gomez DC, Lacerda Gallardo AJ, Guerra Garcia JA, Zerain GF, Lavadenz Cuentas LA, Lequipe C, Grajales Yuca GV, Jibaja Vega M, Kessler ME, López Delgado HJ, Sandi Lora F, Mazzola AM, Maldonado RM, Mezquia de Pedro N, Martínez Zubieta JR, Mijangos Méndez JC, Mora J, Ochoa Parra JM, Pahnke PB, Paranhos J, Piñero GR, Rivadeneira Pilacuán FA, Mendez Rivera MN, Romero Figueroa RL, Rubiano AM, Saraguro Orozco AM, Silesky Jiménez JI, Silva Naranjo L, Soler Morejon C, Urbina Z. Consensus-Based Management Protocol (CREVICE Protocol) for the Treatment of Severe Traumatic Brain Injury Based on Imaging and Clinical Examination for Use When Intracranial Pressure Monitoring Is Not Employed. *J Neurotrauma*. 2020;37(11):1291-9. Epub 2020/02/06. doi: 10.1089/neu.2017.5599. PubMed PMID: 32013721; PubMed Central PMCID: PMC7249475.

32. **Chesnut RM**, Videtta W. Situational Intracranial Pressure Management: An Argument Against a Fixed Treatment Threshold. *Crit Care Med*. 2020;48(8):1214-6. Epub 2020/07/23. doi: 10.1097/ccm.0000000000004395. PubMed PMID: 32697494.

33. **Chesnut RM**, Videtta W. The authors reply. *Crit Care Med*. 2020;48(12):e1366-e7. Epub 2020/12/02. doi: 10.1097/ccm.0000000000004652. PubMed PMID: 33255133.

34. Cho DY, Birgfeld CB, **Lee A**, **Ellenbogen RG**, Susarla SM. A Comparison of Subgaleal Versus Subperiosteal Dissection in Open Cranial Vault Expansion for Sagittal Craniosynostosis. *World Neurosurg*. 2020;143:108-13. Epub 2020/07/28. doi: 10.1016/j.wneu.2020.07.099. PubMed PMID: 32711139.

35. Cho DY, Evans KN, Weed MC, **Lee A**, Susarla SM. Bilateral Squamosal Suture Craniosynostosis Presenting with Abducens Nerve Palsy and Severe Papilledema. *World Neurosurg*. 2020;138:344-8. Epub 2020/03/29. doi: 10.1016/j.wneu.2020.03.079. PubMed PMID: 32217173.

36. Choi SE, Mukherjee S, Gibbons LE, Sanders RE, Jones RN, Tommet D, Mez J, Trittschuh EH, Saykin A, Lamar M, Rabin L, Foldi NS, Sikkes S, Jutten RJ, Grandoit E, **Mac Donald C**, Risacher S, Groot C, Ossenkoppele R, Crane PK. Development and validation of language and visuospatial composite scores in ADNI. *Alzheimers Dement (N Y)*. 2020;6(1):e12072. Epub 2020/12/15. doi: 10.1002/trc2.12072. PubMed PMID: 33313380; PubMed Central PMCID: PMC7718716.

37. Crotty EE, Leary SES, Geyer JR, Olson JM, Millard NE, Sato AA, Ermoian RP, Cole BL, Lockwood CM, Paulson VA, **Browd SR**, **Ellenbogen RG**, **Hauptman JS**, **Lee A**, **Ojemann JG**, Vitanza NA. Children with DIPG and high-grade glioma treated with temozolomide, irinotecan, and bevacizumab: the Seattle Children's Hospital experience. *J Neurooncol*. 2020;148(3):607-17. Epub 2020/06/20. doi: 10.1007/s11060-020-03558-w. PubMed PMID: 32556862.

38. De Boeck A, Ahn BY, D'Mello C, Lun X, Menon SV, Alshehri MM, Szulzewsky F, Shen Y, Khan L, Dang NH, Reichardt E, Goring KA, King J, Grisdale CJ, Grinshtein N, Hambardzumyan D, Reilly KM, Blough MD, Cairncross JG, Yong VW, Marra MA, Jones SJM, Kaplan DR, McCoy KD, **Holland EC**, Bose P, Chan JA, Robbins SM, Senger DL. Glioma-derived IL-33 orchestrates an inflammatory brain tumor microenvironment that accelerates glioma progression. *Nat Commun*. 2020;11(1):4997. Epub 2020/10/07. doi: 10.1038/s41467-020-18569-4. PubMed PMID: 33020472; PubMed Central PMCID: PMC7536425.

39. Ding SL, Yao Z, Hirokawa KE, Nguyen TN, Graybuck LT, Fong O, Bohn P, Ngo K, Smith KA, Koch C,

Phillips JW, **Lein ES**, Harris JA, Tasic B, Zeng H. Distinct Transcriptomic Cell Types and Neural Circuits of the Subiculum and Prosubiculum along the Dorsal-Ventral Axis. *Cell Rep.* 2020;31(7):107648. Epub 2020/05/21. doi: 10.1016/j.celrep.2020.107648. PubMed PMID: 32433957; PubMed Central PMCID: PMC7394561.

40. Dirks PB, Gilbert MR, **Holland EC**, Maher EA, Weiss WA. Translating Basic Science Discoveries into Improved Outcomes for Glioblastoma. *Clin Cancer Res.* 2020;26(11):2457-60. Epub 2020/02/16. doi: 10.1158/1078-0432.Ccr-19-3924. PubMed PMID: 32060102; PubMed Central PMCID: PMC7269826.

41. **Ellenbogen RG**, Connolly ES, Jr., Meyer FB. Maintenance of Certification and the Platinum Rule: An Existential Crisis. *Mayo Clin Proc.* 2020;95(2):228-30. Epub 2020/02/08. doi: 10.1016/j.mayocp.2019.07.021. PubMed PMID: 32029083.

42. Ene CI, Cimino PJ, Fine HA, **Holland EC**. Incorporating genomic signatures into surgical and medical decision-making for elderly glioblastoma patients. *Neurosurg Focus.* 2020;49(4):E11. Epub 2020/10/02. doi: 10.3171/2020.7.Focus20418. PubMed PMID: 33002863.

43. Ene CI, Kurnik N, Vellimana AK, Liu Y, Susarla SM, **Sekhar LN**. Microsurgical Resection of a Primary Intraosseous Meningioma Encasing the Superior Sagittal Sinus. *J Craniofac Surg.* 2020;31(7):2012-4. Epub 2020/07/14. doi: 10.1097/scs.0000000000006701. PubMed PMID: 32657980.

44. Ene CI, Wang AC, Collins KL, **Bonow RH**, McGrath LB, Durfy SJ, Barber JK, **Ellenbogen RG**. Expansile duraplasty and obex exploration compared with bone-only decompression for Chiari malformation type I in children: retrospective review of outcomes and complications. *J Neurosurg Pediatr.* 2020:1-8. Epub 2020/10/31. doi: 10.3171/2020.6.Peds20376. PubMed PMID: 33126216.

45. Evans E, Cook NE, Iverson GL, Townsend EL, Duhaime AC, **TRACK-TBI Investigators**. Monitoring Outcome after Hospital-Presenting Milder Spectrum Pediatric Traumatic Brain Injury Using the Glasgow Outcome Scale-Extended, Pediatric Revision. *J Neurotrauma.* 2020;37(14):1627-36. Epub 2020/02/29. doi: 10.1089/neu.2019.6893. PubMed PMID: 32106753; PubMed Central PMCID: PMC7339019.

46. Ezeokeke CK, Bobola MS, Selby M, Ko JH, Friedly JL, **Mourad PD**. Case study of an amputee regaining sensation and muscle function in a residual limb after peripheral nerve stimulation by intense focused ultrasound. *Brain Stimul.* 2020;13(3):527-9. Epub 2020/04/15. doi: 10.1016/j.brs.2020.01.003. PubMed PMID: 32289669; PubMed Central PMCID: PMC7195996.

47. Ferleger BI, Houston B, Thompson MC, Cooper SS, Sonnet KS, **Ko AL**, **Herron JA**, Chizeck HJ. Fully implanted adaptive deep brain stimulation in freely moving essential tremor patients. *J Neural Eng.* 2020;17(5):056026. Epub 2020/10/16. doi: 10.1088/1741-2552/abb416. PubMed PMID: 33055369.

48. Feroze AH, McGrath M, Williams JR, Young CC, Ene CI, Buckley RT, Cole BL, **Ojemann JG**, **Hauptman JS**. Laser interstitial thermal therapy for pediatric atypical teratoid/rhabdoid tumor: case report. *Neurosurg Focus.* 2020;48(1):E11. Epub 2020/01/03. doi: 10.3171/2019.10.Focus19746. PubMed PMID: 31896085.

49. Fiorella D, Fargen KM, Leslie-Mazwi TM, **Levitt M**, Probst S, Bergese S, Hirsch JA, Albuquerque FC. Neurointervention for emergent large vessel occlusion during the COVID-19 pandemic. *J Neurointerv*

Surg. 2020;12(6):537-8. Epub 2020/04/22. doi: 10.1136/neurintsurg-2020-016117. PubMed PMID: 32312799.

50. Fraser JF, Arthur AS, Chen M, **Levitt M**, Mocco J, Albuquerque FC, Ansari SA, Dabus G, Jayaraman MV, Mack WJ, Milburn J, Mokin M, Narayanan S, Puri AS, Siddiqui AH, Tsai JP, Klucznik RP. Society of NeuroInterventional Surgery recommendations for the care of emergent neurointerventional patients in the setting of COVID-19. *J Neurointerv Surg.* 2020;12(6):539-41. Epub 2020/04/17. doi: 10.1136/neurintsurg-2020-016098. PubMed PMID: 32295835.

51. Fu Q, Wang Y, Zhang Y, Zhang Y, Guo X, Xu H, Yao Z, Wang M, **Levitt MR**, Mossa-Basha M, Zhu J, Cheng J, Guan S, Zhu C. Qualitative and Quantitative Wall Enhancement on Magnetic Resonance Imaging Is Associated With Symptoms of Unruptured Intracranial Aneurysms. *Stroke.* 2021;52(1):213-22. Epub 2020/12/23. doi: 10.1161/strokeaha.120.029685. PubMed PMID: 33349014; PubMed Central PMCID: PMC7770055.

52. Fuller AT, Barkley A, Du R, Elahi C, Tafreshi AR, Von Isenburg M, Haglund MM. Global neurosurgery: a scoping review detailing the current state of international neurosurgical outreach. *J Neurosurg.* 2020:1-9. Epub 2020/05/10. doi: 10.3171/2020.2.Jns192517. PubMed PMID: 32384268.

53. Fung S, Smith CL, Prater KE, Case A, Green K, Osnis L, Winston C, Kinoshita Y, Sopher B, **Morrison RS**, Garden GA, Jayadev S. Early-Onset Familial Alzheimer Disease Variant PSEN2 N141I Heterozygosity is Associated with Altered Microglia Phenotype. *J Alzheimers Dis.* 2020;77(2):675-88. Epub 2020/08/04. doi: 10.3233/jad-200492. PubMed PMID: 32741831; PubMed Central PMCID: PMC7592656.

54. Gardell JL, Matsumoto LR, Chinn H, DeGolier KR, Kreuser SA, Prieskorn B, Balcaitis S, Davis A, **Ellenbogen RG, Crane CA**. Human macrophages engineered to secrete a bispecific T cell engager support antigen-dependent T cell responses to glioblastoma. *J Immunother Cancer.* 2020;8(2). Epub 2020/10/31. doi: 10.1136/jitc-2020-001202. PubMed PMID: 33122397; PubMed Central PMCID: PMCPMC7597484.

55. Georganaki M, Ramachandran M, Tuit S, Núñez NG, Karampatzakis A, Fotaki G, van Hooren L, Huang H, Lugano R, Ulas T, Kaunisto A, **Holland EC**, Ellmark P, Mangsbo SM, Schultze J, Essand M, Tugues S, Dimberg A. Tumor endothelial cell up-regulation of IDO1 is an immunosuppressive feed-back mechanism that reduces the response to CD40-stimulating immunotherapy. *Oncoimmunology.* 2020;9(1):1730538. Epub 2020/04/02. doi: 10.1080/2162402x.2020.1730538. PubMed PMID: 32231867; PubMed Central PMCID: PMC7094447.

56. Gibson AW, Gobillot TA, Bass DJ, Zakarevicius Z, Rizvi ZH, **Ravanpay AC**. Case of Esophageal Perforation and Repair with a Supraclavicular Artery Island Fascial Flap 15 Years After Anterior Spine Surgery. *World Neurosurg.* 2020;143:102-7. Epub 2020/07/31. doi: 10.1016/j.wneu.2020.07.151. PubMed PMID: 32730966.

57. Glorioso JC, Cohen JB, Goins WF, Hall B, Jackson JW, Kohanbash G, Amankulor N, Kaur B, Caligiuri MA, Chiocca EA, **Holland EC**, Quéva C. Oncolytic HSV Vectors and Anti-Tumor Immunity. *Curr Issues Mol Biol.* 2020;41:381-468. Epub 2020/09/18. doi: 10.21775/cimb.041.381. PubMed PMID: 32938804.

58. Gouwens NW, Sorensen SA, Baftizadeh F, Budzillo A, Lee BR, Jarsky T, Alfiler L, Baker K, Barkan E, Berry K, Bertagnolli D, Bickley K, Bomben J, Braun T, Brouner K, Casper T, Crichton K, Daigle TL, Dalley R,

de Frates RA, Dee N, Desta T, Lee SD, Dotson N, Egdorf T, Ellingwood L, Enstrom R, Esposito L, Farrell C, Feng D, Fong O, Gala R, Gamlin C, Gary A, Glandon A, Goldy J, Gorham M, Graybuck L, Gu H, Hadley K, Hawrylycz MJ, Henry AM, Hill D, Hupp M, Kebede S, Kim TK, Kim L, Kroll M, Lee C, Link KE, Mallory M, Mann R, Maxwell M, McGraw M, McMillen D, Mukora A, Ng L, Ng L, Ngo K, Nicovich PR, Oldre A, Park D, Peng H, Penn O, Pham T, Pom A, Popović Z, Potekhina L, Rajanbabu R, Ransford S, Reid D, Rimorin C, Robertson M, Ronellenfitch K, Ruiz A, Sandman D, Smith K, Sulc J, Sunkin SM, Szafer A, Tieu M, Torkelson A, Trinh J, Tung H, Wakeman W, Ward K, Williams G, Zhou Z, Ting JT, Arkhipov A, Sumbül U, **Lein ES**, Koch C, Yao Z, Tasic B, Berg J, Murphy GJ, Zeng H. Integrated Morphoelectric and Transcriptomic Classification of Cortical GABAergic Cells. *Cell*. 2020;183(4):935-53.e19. Epub 2020/11/14. doi: 10.1016/j.cell.2020.09.057. PubMed PMID: 33186530; PubMed Central PMCID: PMC7781065.

59. Goyal M, Ospel JM, Menon B, Almekhlafi M, Jayaraman M, Fiehler J, Psychogios M, Chapot R, van der Lugt A, Liu J, Yang P, Agid R, Hacke W, **Walker M**, Fischer U, Asdaghi N, McTaggart R, Srivastava P, Nogueira RG, Moret J, Saver JL, Hill MD, Dippel D, Fisher M. Challenging the Ischemic Core Concept in Acute Ischemic Stroke Imaging. *Stroke*. 2020;51(10):3147-55. Epub 2020/09/17. doi: 10.1161/strokeaha.120.030620. PubMed PMID: 32933417.

60. Gutschenritter T, Venur VA, Combs SE, Vellayappan B, **Patel AP**, Foote M, Redmond KJ, Wang TJC, Sahgal A, Chao ST, Suh JH, Chang EL, **Ellenbogen RG**, Lo SS. The Judicious Use of Stereotactic Radiosurgery and Hypofractionated Stereotactic Radiotherapy in the Management of Large Brain Metastases. *Cancers (Basel)*. 2020;13(1). Epub 2021/01/02. doi: 10.3390/cancers13010070. PubMed PMID: 33383817; PubMed Central PMCID: PMC7795798.

61. Gyllborg D, Langseth CM, Qian X, Choi E, Salas SM, Hilscher MM, **Lein ES**, Nilsson M. Hybridization-based in situ sequencing (HybISS) for spatially resolved transcriptomics in human and mouse brain tissue. *Nucleic Acids Res*. 2020;48(19):e112. Epub 2020/09/30. doi: 10.1093/nar/gkaa792. PubMed PMID: 32990747; PubMed Central PMCID: PMC7641728.

62. Hale AT, Adelson PD, Albert GW, Aldana PR, Alden TD, Anderson RCE, Bauer DF, Bonfield CM, Brockmeyer DL, Chern JJ, Couture DE, Daniels DJ, Durham SR, **Ellenbogen RG**, Eskandari R, George TM, Grant GA, Graupman PC, Greene S, Greenfield JP, Gross NL, Guillaume DJ, Heuer GG, Iantosca M, Iskandar BJ, Jackson EM, Johnston JM, Keating RF, Leonard JR, Maher CO, Mangano FT, McComb JG, Meehan T, Menezes AH, O'Neill B, Olavarria G, Park TS, Ragheb J, Selden NR, Shah MN, Smyth MD, Stone SSD, Strahle JM, Wait SD, Wellons JC, Whitehead WE, Shannon CN, Limbrick DD. Factors associated with syring size in pediatric patients treated for Chiari malformation type I and syringomyelia: a study from the Park-Reeves Syringomyelia Research Consortium. *J Neurosurg Pediatr*. 2020:1-11. Epub 2020/03/03. doi: 10.3171/2020.1.Peds19493. PubMed PMID: 32114543.

63. *Hasan S*, White-Dzuro B, Barber JK, Wagner R, **Hofstetter CP**. The Endoscopic Trans-Superior Articular Process Approach: A Novel Minimally Invasive Surgical Corridor to the Lateral Recess. *Oper Neurosurg (Hagerstown)*. 2020;19(1):E1-e10. Epub 2020/04/14. doi: 10.1093/ons/opaa054. PubMed PMID: 32281629.

64. **Hauptman JS**, Kestle J, Riva-Cambrin J, Kulkarni AV, **Browd SR**, Rozzelle CJ, Whitehead WE, Naftel RP, Pindrik J, Limbrick DD, Drake J, Wellons JC, Tamber MS, Shannon CN, Simon TD, Pollack IF, McDonald PJ, Krieger MD, Chu J, Hankinson TC, Jackson EM, Alvey JS, Reeder RW, Holubkov R. Predictors of fast and ultrafast shunt failure in pediatric hydrocephalus: a Hydrocephalus Clinical



Research Network study. *J Neurosurg Pediatr.* 2020;1-10. Epub 2020/12/19. doi: 10.3171/2020.7.Peds20111. PubMed PMID: 33338993.

65. Hawryluk GWJ, Nielson JL, Huie JR, Zimmermann L, **Saigal R**, Ding Q, Hirschi R, Zeiler FA, Ferguson AR, Manley GT. Analysis of Normal High-Frequency Intracranial Pressure Values and Treatment Threshold in Neurocritical Care Patients: Insights into Normal Values and a Potential Treatment Threshold. *JAMA Neurol.* 2020;77(9):1150-8. Epub 2020/06/17. doi: 10.1001/jamaneurol.2020.1310. PubMed PMID: 32539101; PubMed Central PMCID: PMC7296460

66. Hawryluk GWJ, Rubiano AM, Totten AM, O'Reilly C, Ullman JS, Bratton SL, **Chesnut R**, Harris OA, Kisson N, Shutter L, Tasker RC, Vavilala MS, Wilberger J, Wright DW, Lumba-Brown A, Ghajar J. Guidelines for the Management of Severe Traumatic Brain Injury: 2020 Update of the Decompressive Craniectomy Recommendations. *Neurosurgery.* 2020;87(3):427-34. Epub 2020/08/08. doi: 10.1093/neuros/nyaa278. PubMed PMID: 32761068; PubMed Central PMCID: PMC7426189.

67. Hodge RD, Miller JA, Novotny M, Kalmbach BE, Ting JT, Bakken TE, Aevermann BD, Barkan ER, Berkowitz-Cerasano ML, Cobbs C, Diez-Fuertes F, Ding SL, McCarrison J, Schork NJ, Shehata SI, Smith KA, Sunkin SM, Tran DN, Venepally P, Yanny AM, Steemers FJ, Phillips JW, Bernard A, Koch C, Lasken RS, Scheuermann RH, **Lein ES**. Transcriptomic evidence that von Economo neurons are regionally specialized extratelencephalic-projecting excitatory neurons. *Nat Commun.* 2020;11(1):1172. Epub 2020/03/05. doi: 10.1038/s41467-020-14952-3. PubMed PMID: 32127543; PubMed Central PMCID: PMC7054400.

68. Hoffman JM, Lucas S, Dikmen S, **Temkin N**. Clinical Perspectives on Headache After Traumatic Brain Injury. *Pm r.* 2020;12(10):967-74. Epub 2020/02/01. doi: 10.1002/pmrj.12338. PubMed PMID: 32003524.

69. **Hofstetter CP**, Ahn Y, Choi G, Gibson JNA, Ruetten S, Zhou Y, Li ZZ, Siepe CJ, Wagner R, Lee JH, Sairyo K, Choi KC, Chen CM, Telfeian AE, Zhang X, Banhot A, Lokhande PV, Prada N, Shen J, Cortinas FC, Brooks NP, Van Daele P, Kotheeranurak V, Hasan S, Keorochana G, Assous M, Härtl R, Kim JS. AOSpine Consensus Paper on Nomenclature for Working-Channel Endoscopic Spinal Procedures. *Global Spine J.* 2020;10(2 Suppl):111s-21s. Epub 2020/06/13. doi: 10.1177/2192568219887364. PubMed PMID: 32528794; PubMed Central PMCID: PMC7263337.

70. Huang AY, Li P, Rodin RE, Kim SN, Dou Y, Kenny CJ, Akula SK, Hodge RD, Bakken TE, Miller JA, **Lein ES**, Park PJ, Lee EA, Walsh CA. Parallel RNA and DNA analysis after deep sequencing (PRDD-seq) reveals cell type-specific lineage patterns in human brain. *Proc Natl Acad Sci U S A.* 2020;117(25):13886-95. Epub 2020/06/12. doi: 10.1073/pnas.2006163117. PubMed PMID: 32522880; PubMed Central PMCID: PMC7322034.

71. Huang M, Zhang D, Wu JY, Xing K, Yeo E, Li C, Zhang L, **Holland E**, Yao L, Qin L, Binder ZA, O'Rourke DM, Brem S, Koumenis C, Gong Y, Fan Y. Wnt-mediated endothelial transformation into mesenchymal stem cell-like cells induces chemoresistance in glioblastoma. *Sci Transl Med.* 2020;12(532). Epub 2020/02/28. doi: 10.1126/scitranslmed.aay7522. PubMed PMID: 32102932; PubMed Central PMCID: PMC7261487.

72. Huie JR, Mondello S, Lindsell CJ, Antiga L, Yuh EL, Zanier ER, Masson S, Rosario BL, Ferguson AR, **TRACK-TBI Investigators**, CENTER-TBI Participants and Investigators. Biomarkers for Traumatic Brain

Injury: Data Standards and Statistical Considerations. *J Neurotrauma*. 2020. Epub 2020/02/13. doi: 10.1089/neu.2019.6762. PubMed PMID: 32046588.

73. Hurwitz M, Lucas S, Bell KR, **Temkin N**, Dikmen S, Hoffman J. Use of Amitriptyline in the Treatment of Headache After Traumatic Brain Injury: Lessons Learned From a Clinical Trial. *Headache*. 2020;60(4):713-23. Epub 2020/01/17. doi: 10.1111/head.13748. PubMed PMID: 31943197.

74. Hussain I, Rapoport BI, Krause K, Kinney G, **Hofstetter CP**, Elowitz E. Transforaminal Endoscopic Lumbar Discectomy and Foraminotomy with Modified Radiofrequency Nerve Stimulator and Continuous Electromyography Under General Anesthesia. *World Neurosurg*. 2020;137:102-10. Epub 2020/02/10. doi: 10.1016/j.wneu.2020.01.186. PubMed PMID: 32036064.

75. Huynh TJ, Morton RP, **Levitt MR**, Ghodke BV, Wink O, **Hallam DK**. Republished: Successful treatment of direct carotid-cavernous fistula in a patient with Ehlers-Danlos syndrome type IV without arterial puncture: the transvenous triple-overlay embolization (TAILOREd) technique. *J Neurointerv Surg*. 2020;12(11):e8. Epub 2020/10/17. doi: 10.1136/neurintsurg-2017-013052.rep. PubMed PMID: 33060177.

76. Iaccarino C, Koliaas A, Adelson PD, Rubiano AM, Viaroli E, Buki A, Cinalli G, Fountas K, Khan T, Signoretti S, Waran V, Adeleye AO, Amorim R, Bertuccio A, Cama A, **Chesnut RM**, De Bonis P, Estraneo A, Figaji A, Florian SI, Formisano R, Frassanito P, Gatos C, Germanò A, Giussani C, Hossain I, Kasprzak P, La Porta F, Lindner D, Maas AIR, Paiva W, Palma P, Park KB, Peretta P, Pompucci A, Posti J, Sengupta SK, Sinha A, Sinha V, Stefani R, Talamonti G, Tasiou A, Zona G, Zucchelli M, Hutchinson PJ, Servadei F. Consensus statement from the international consensus meeting on post-traumatic cranioplasty. *Acta Neurochir (Wien)*. 2020. Epub 2020/12/24. doi: 10.1007/s00701-020-04663-5. PubMed PMID: 33354733.

77. Jeon TY, Poliakov AV, Friedman SD, Bozarth XL, Novotny EJ, **Hauptman JS**, Moon SH, Shaw DWW. Structural MRI and tract-based spatial statistical analysis of diffusion tensor imaging in children with hemimegalencephaly. *Neuroradiology*. 2020;62(11):1467-74. Epub 2020/07/12. doi: 10.1007/s00234-020-02491-z. PubMed PMID: 32651620.

78. Joyce E, Bounajem MT, Scoville J, Thomas AJ, Ogilvy CS, Riina HA, Tanweer O, Levy EI, Spiotta AM, Gross BA, Jankowitz BT, Cawley CM, Khalessi AA, Pandey AS, Ringer AJ, Hanel R, Ortiz RA, Langer D, **Levitt MR**, Binning M, Taussky P, Kan P, Grandhi R. Middle meningeal artery embolization treatment of nonacute subdural hematomas in the elderly: a multiinstitutional experience of 151 cases. *Neurosurg Focus*. 2020;49(4):E5. Epub 2020/10/02. doi: 10.3171/2020.7.Focus20518. PubMed PMID: 33002874.

79. Kaley TJ, Panageas KS, Pentsova EI, Mellinghoff IK, Nolan C, Gavrilovic I, DeAngelis LM, Abrey LE, **Holland EC**, Omuro A, Lacouture ME, Ludwig E, Lassman AB. Phase I clinical trial of temsirolimus and perifosine for recurrent glioblastoma. *Ann Clin Transl Neurol*. 2020;7(4):429-36. Epub 2020/04/16. doi: 10.1002/acn3.51009. PubMed PMID: 32293798; PubMed Central PMCID: PMC7187704.

80. Kan P, **Levitt MR**, Mack WJ, Starke RM, Sheth KN, Albuquerque FC, Mokin M. National Institutes of Health grant opportunities for the neurointerventionalist: preparation and choosing the right mechanism. *J Neurointerv Surg*. 2020. Epub 2020/11/27. doi: 10.1136/neurintsurg-2020-016743. PubMed PMID: 33239308.

81. Kan P, Mokin M, Mack WJ, Starke RM, Sheth KN, Albuquerque FC, **Levitt MR**. Strategies for writing a successful National Institutes of Health grant proposal for the early-career neurointerventionalist. *J Neurointerv Surg*. 2020. Epub 2020/11/27. doi: 10.1136/neurintsurg-2020-016964. PubMed PMID: 33239307.
82. *Kellogg RT*, Vargas J, Barros G, Sen R, Bass D, Mason JR, **Levitt M**. Segmentation of Chronic Subdural Hematomas Using 3D Convolutional Neural Networks. *World Neurosurg*. 2020. Epub 2020/12/29. doi: 10.1016/j.wneu.2020.12.014. PubMed PMID: 33359736.
83. **Khaing ZZ**, Cates LN, Dewees DM, Hyde JE, Gaing A, Birjandian Z, **Hofstetter CP**. Effect of Durotomy versus Myelotomy on Tissue Sparing and Functional Outcome after Spinal Cord Injury. *J Neurotrauma*. 2020. Epub 2020/10/31. doi: 10.1089/neu.2020.7297. PubMed PMID: 33121382.
84. **Khaing ZZ**, Cates LN, Hyde J, DeWees DM, Hammond R, Bruce M, **Hofstetter CP**. Contrast-Enhanced Ultrasound for Assessment of Local Hemodynamic Changes Following a Rodent Contusion Spinal Cord Injury. *Mil Med*. 2020;185(Suppl 1):470-5. Epub 2020/02/20. doi: 10.1093/milmed/usz296. PubMed PMID: 32074323.
85. **Khaing ZZ**, Cates LN, Hyde JE, Hammond R, Bruce M, **Hofstetter CP**. Transcutaneous contrast-enhanced ultrasound imaging of the posttraumatic spinal cord. *Spinal Cord*. 2020;58(6):695-704. Epub 2020/01/23. doi: 10.1038/s41393-020-0415-9. PubMed PMID: 31965060.
86. Khalatbari H, Perez FA, **Lee A**, Shaw DWW. Rapid Magnetic Resonance Imaging of the Spine in Neonates with Spinal Dysraphism. *World Neurosurg*. 2020;144:e648-e59. Epub 2020/09/23. doi: 10.1016/j.wneu.2020.09.013. PubMed PMID: 32961357.
87. Konakondla S, Sofoluke N, Xia J, Grant R, Telfeian AE, **Hofstetter CP**, Slotkin JR. Transforaminal Endoscopic Approach for Large-Sample Tumor Biopsy using Beveled Working Channel for Core Technique: A Technical Note. *World Neurosurg*. 2020;141:346-51. Epub 2020/05/23. doi: 10.1016/j.wneu.2020.05.096. PubMed PMID: 32442734.
88. LaPiana N, Duong A, Lee A, Alschitz L, Silva RML, Early J, Bunnell A, **Mourad P**. Acceptability of a Mobile Phone-Based Augmented Reality Game for Rehabilitation of Patients With Upper Limb Deficits from Stroke: Case Study. *JMIR Rehabil Assist Technol*. 2020;7(2):e17822. Epub 2020/09/03. doi: 10.2196/17822. PubMed PMID: 32876580; PubMed Central PMCID: PMC7495251.
89. Lawley JS, Babu G, Janssen S, Petersen LG, Hearon CM, Jr., Dias KA, Sarma S, **Williams MA**, Whitworth LA, Levine BD. Daily generation of a footward fluid shift attenuates ocular changes associated with head-down tilt bed rest. *J Appl Physiol (1985)*. 2020;129(5):1220-31. Epub 2020/09/18. doi: 10.1152/jappphysiol.00250.2020. PubMed PMID: 32940563.
90. Lee KE, Zehri A, Soldozy S, Syed H, Catapano JS, Maurer R, Albuquerque FC, Liu KC, Wolfe SQ, Brown S, **Levitt MR**, Fargen KM. Dural venous sinus stenting for treatment of pediatric idiopathic intracranial hypertension. *J Neurointerv Surg*. 2020. Epub 2020/08/01. doi: 10.1136/neurintsurg-2020-016183. PubMed PMID: 32732257.

91. Lele AV, Alunpipatthanachai B, Clark-Bell C, Watanitanon A, Min Xu M, Anne Moore RVT, Zimmerman JJ, Portman MA, **Chesnut RM**, Vavilala MS. Cardiac-cerebral-renal associations in pediatric traumatic brain injury: Preliminary findings. *J Clin Neurosci*. 2020;76:126-33. Epub 2020/04/18. doi: 10.1016/j.jocn.2020.04.021. PubMed PMID: 32299773.
92. Lenz M, Oikonomidis S, Hartwig R, Gramse R, Meyer C, Scheyerer MJ, **Hofstetter C**, Eysel P, Bredow J. Clinical outcome after lumbar spinal fusion surgery in degenerative spondylolisthesis: a 3-year follow-up. *Arch Orthop Trauma Surg*. 2020. Epub 2020/12/30. doi: 10.1007/s00402-020-03697-9. PubMed PMID: 33372234.
93. Leslie-Mazwi TM, Fargen KM, **Levitt M**, Derdeyn CP, Feske SK, Patel AB, Hirsch JA. Preserving Access: A Review of Stroke Thrombectomy during the COVID-19 Pandemic. *AJNR Am J Neuroradiol*. 2020;41(7):1136-41. Epub 2020/05/23. doi: 10.3174/ajnr.A6606. PubMed PMID: 32439650; PubMed Central PMCID: PMC7357634.
94. **Levitt M**. Another version of the truth. *J Neurointerv Surg*. 2020;12(4):335-6. Epub 2020/03/13. doi: 10.1136/neurintsurg-2020-015935. PubMed PMID: 32161165.
95. Li Y, Chen SH, Spiotta AM, Jabbour P, **Levitt MR**, Kan P, Griessenauer CJ, Arthur AS, Osbun JW, Park MS, Chalouhi N, Sweid A, Wolfe SQ, Fargen KM, Dumont AS, Dumont TM, Brunet MC, Sur S, Luther E, Strickland A, Yavagal DR, Peterson EC, Schirmer CM, Goren O, Dalal S, Weiner G, Rosengart A, Raper D, Chen CJ, Amenta P, Scullen T, Kelly CM, Young C, Nahhas M, Almallouhi E, Gunasekaran A, Pai S, Lanzino G, Brinjikji W, Abbasi M, Dornbos lii D, Goyal N, Peterson J, El-Ghanem MH, Starke RM. Lower complication rates associated with transradial versus transfemoral flow diverting stent placement. *J Neurointerv Surg*. 2021;13(1):91-5. Epub 2020/06/04. doi: 10.1136/neurintsurg-2020-015992. PubMed PMID: 32487766; PubMed Central PMCID: PMC7708402.
96. Lonser RR, Smith LGF, Tennekoon M, Rezai-Zadeh KP, **Ojemann JG**, Korn SJ. Creation of a comprehensive training and career development approach to increase the number of neurosurgeons supported by National Institutes of Health funding. *J Neurosurg*. 2020:1-9. Epub 2020/08/09. doi: 10.3171/2020.5.Jns201008. PubMed PMID: 32764178.
97. Lu VM, Chen SH, Young CC, Starke RM. Nature, content and shifts over time of the most impactful unruptured intracranial aneurysms articles: a bibliometric analysis. *J Neurointerv Surg*. 2020. Epub 2020/07/02. doi: 10.1136/neurintsurg-2020-016238. PubMed PMID: 32606102.
98. Lu VM, Young CC, Chen SH, O'Connor KP, Silva MA, Starke RM. Presenting NIHSS predicts 90-day functional outcome after mechanical thrombectomy for basilar artery occlusion: A systematic review and meta-analysis. *Clin Neurol Neurosurg*. 2020;197:106199. Epub 2020/09/12. doi: 10.1016/j.clineuro.2020.106199. PubMed PMID: 32916397.
99. Luther E, Burks J, Abecassis IJ, Nada A, Heath R, Berry K, McCarthy DJ, Saini V, Silva M, Huang E, Strickland A, Yavagal DR, Peterson EC, **Levitt MR**, Starke RM. Navigating radial artery loops in neurointerventions. *J Neurointerv Surg*. 2020. Epub 2021/01/15. doi: 10.1136/neurintsurg-2020-016856. PubMed PMID: 33443135.
100. Ma Z, Niu B, Phan TA, Stensjøen AL, Ene C, Woodiwiss T, Wang T, Maini PK, **Holland EC**, Tian JP.

Stochastic growth pattern of untreated human glioblastomas predicts the survival time for patients. *Sci Rep.* 2020;10(1):6642. Epub 2020/04/22. doi: 10.1038/s41598-020-63394-w. PubMed PMID: 32313150; PubMed Central PMCID: PMC7171128.

101. Markman JD, Czerniecka-Fox K, Khalsa PS, Hayek SM, Asher AL, **Loeser JD**, Chou R. AAPT Diagnostic Criteria for Chronic Low Back Pain. *J Pain.* 2020;21(11-12):1138-48. Epub 2020/02/10. doi: 10.1016/j.jpain.2020.01.008. PubMed PMID: 32036046.

102. Mascitelli JR, **Levitt MR**, Griessenauer CJ, **Kim LJ**, Gross B, Abla A, Winkler E, Jankowitz B, Grandhi R, Goren O, Schirmer CM. Transcirculation approach for stent-assisted coiling of intracranial aneurysms: a multicenter study. *J Neurointerv Surg.* 2020. Epub 2020/11/19. doi: 10.1136/neurintsurg-2020-016899. PubMed PMID: 33203763.

103. Mattke S, Cramer SC, Wang M, Bettger JP, Cockroft KM, Feng W, Jaffee M, Oyesanya TO, Puccio AM, **Temkin N**, Winstein C, Wolf SL, Yochelson MR. Estimating minimal clinically important differences for two scales in patients with chronic traumatic brain injury. *Curr Med Res Opin.* 2020;36(12):1999-2007. Epub 2020/10/24. doi: 10.1080/03007995.2020.1841616. PubMed PMID: 33095678.

104. Miller JA, Gouwens NW, Tasic B, Collman F, van Velthoven CT, Bakken TE, Hawrylycz MJ, Zeng H, **Lein ES**, Bernard A. Common cell type nomenclature for the mammalian brain. *Elife.* 2020;9. Epub 2020/12/30. doi: 10.7554/eLife.59928. PubMed PMID: 33372656; PubMed Central PMCID: PMC7790494.

105. Mitchell EA, Yan X, Ren SY, Anderson TM, **Ramirez JM**, Lavista Ferres JM, Johnston R. Geographic Variation in Sudden Unexpected Infant Death in the United States. *J Pediatr.* 2020;220:49-55.e2. Epub 2020/02/18. doi: 10.1016/j.jpeds.2020.01.006. PubMed PMID: 32061407.

106. Monroe EJ, Chick JFB, Stacey AW, Millard NE, Geyer JR, Ramoso LR, Ghodke BV, **Hallam DK**. Radiation dose reduction during intra-arterial chemotherapy for retinoblastoma: a retrospective analysis of 96 consecutive pediatric interventions using five distinct protocols. *Pediatr Radiol.* 2020. Epub 2020/11/25. doi: 10.1007/s00247-020-04892-x. PubMed PMID: 33231717.

107. Mossa-Basha M, Peterson DJ, Hippe DS, Vranic JE, **Hofstetter C**, Reyes M, Bombardier C, Jarvik JG. Segmented quantitative diffusion tensor imaging evaluation of acute traumatic cervical spinal cord injury. *Br J Radiol.* 2020:20201000. Epub 2020/11/13. doi: 10.1259/bjr.20201000. PubMed PMID: 33180553.

108. Nassar AH, Mercan E, Massenburg BB, **Lee A**, Brown J, Skladman R, Guo Y, Hopper RA. Timing of Ossification of the Anterior Skull Base in Syndromic Synostosis. *J Craniofac Surg.* 2020;31(5):1256-60. Epub 2020/04/14. doi: 10.1097/scs.0000000000006431. PubMed PMID: 32282683.

109. Nazem AA, Ruzevick J, **Ferreira MJ, Jr**. Advances in meningioma genomics, proteomics, and epigenetics: insights into biomarker identification and targeted therapies. *Oncotarget.* 2020;11(49):4544-53. Epub 2020/12/22. doi: 10.18632/oncotarget.27841. PubMed PMID: 33346248; PubMed Central PMCID: PMC7733625.

110. Nelson LD, Barber JK, **Temkin NR**, Dams-O'Connor K, Dikmen S, Giacino JT, Kramer MD, Levin HS,

McCrea MA, Whyte J, Bodien YG, Yue JK, Manley GT. Validity of the Brief Test of Adult Cognition by Telephone in Level 1 Trauma Center Patients Six Months Post-Traumatic Brain Injury: A TRACK-TBI Study. *J Neurotrauma*. 2020. Epub 2020/10/28. doi: 10.1089/neu.2020.7295. PubMed PMID: 33107388.

111. Nieblas-Bedolla E, Williams JR, Christophers B, Kweon CY, Williams EJ, Jimenez N. Trends in Race/Ethnicity Among Applicants and Matriculants to US Surgical Specialties, 2010-2018. *JAMA Netw Open*. 2020;3(11):e2023509. Epub 2020/11/03. doi: 10.1001/jamanetworkopen.2020.23509. PubMed PMID: 33136131; PubMed Central PMCID: PMC7607442.

112. Nielson JL, Cooper SR, Seabury SA, Luciani D, Fabio A, **Temkin NR**, Ferguson AR. Statistical Guidelines for Handling Missing Data in Traumatic Brain Injury Clinical Research. *J Neurotrauma*. 2020. Epub 2020/02/06. doi: 10.1089/neu.2019.6702. PubMed PMID: 32008424.

113. Niu B, Zeng X, Phan TA, Szulzewsky F, Holte S, **Holland EC**, Tian JP. Mathematical modeling of PDGF-driven glioma reveals the dynamics of immune cells infiltrating into tumors. *Neoplasia*. 2020;22(9):323-32. Epub 2020/06/26. doi: 10.1016/j.neo.2020.05.005. PubMed PMID: 32585427; PubMed Central PMCID: PMC7322103.

114. Nolan AL, Petersen C, Iacono D, **Mac Donald CL**, Mukherjee P, van der Kouwe A, Jain S, Stevens A, Diamond B, Wang R, Markowitz AJ, Fischl B, Perl D, Manley GT, Keene CD, Diaz-Arrastia R, Edlow BL. Tractography-Pathology Correlations in Traumatic Brain Injury: A TRACK-TBI Study. *J Neurotrauma*. 2021. Epub 2021/01/09. doi: 10.1089/neu.2020.7373. PubMed PMID: 33412995.

115. Norat P, Soldozy S, Sokolowski JD, Gorick CM, Kumar JS, Chae Y, Yağmurlu K, Prada F, **Walker M, Levitt MR**, Price RJ, Tvrđik P, Kalani MYS. Mitochondrial dysfunction in neurological disorders: Exploring mitochondrial transplantation. *NPJ Regen Med*. 2020;5(1):22. Epub 2020/12/11. doi: 10.1038/s41536-020-00107-x. PubMed PMID: 33298971; PubMed Central PMCID: PMC7683736.

116. Nunn AC, Jones HE, Morosanu CO, Singleton WGB, **Williams MA**, Nagel SJ, Luciano MG, Zwimpfer TJ, Holubkov R, Wisoff JH, McKhann GM, 2nd, Hamilton MG, Edwards RJ. Extended lumbar drainage in idiopathic normal pressure hydrocephalus: a systematic review and meta-analysis of diagnostic test accuracy. *Br J Neurosurg*. 2020:1-7. Epub 2020/07/10. doi: 10.1080/02688697.2020.1787948. PubMed PMID: 32643967.

117. Oikonomidis S, Heck V, Bantle S, Scheyerer MJ, **Hofstetter C**, Budde S, Eysel P, Bredow J. Impact of lordotic cages in the restoration of spinopelvic parameters after dorsal lumbar interbody fusion: a retrospective case control study. *Int Orthop*. 2020;44(12):2665-72. Epub 2020/07/15. doi: 10.1007/s00264-020-04719-2. PubMed PMID: 32661634; PubMed Central PMCID: PMC7679311.

118. Okonkwo DO, Puffer RC, Puccio AM, Yuh EL, Yue JK, Diaz-Arrastia R, Korley FK, Wang KKW, Sun X, Taylor SR, Mukherjee P, Markowitz AJ, Jain S, Manley GT, **TRACK-TBI Investigators**. Point-of-Care Platform Blood Biomarker Testing of Glial Fibrillary Acidic Protein versus S100 Calcium-Binding Protein B for Prediction of Traumatic Brain Injuries: A Transforming Research and Clinical Knowledge in Traumatic Brain Injury Study. *J Neurotrauma*. 2020;37(23):2460-7. Epub 2020/08/29. doi: 10.1089/neu.2020.7140. PubMed PMID: 32854584; PubMed Central PMCID: PMC7698990.

119. Oztek MA, Mayr NA, Mossa-Basha M, Nyflot M, Sponseller PA, Wu W, **Hofstetter CP, Saigal R**,

Bowen SR, Hippe DS, Yuh WTC, Stewart RD, Lo SS. The Dancing Cord: Inherent Spinal Cord Motion and Its Effect on Cord Dose in Spine Stereotactic Body Radiation Therapy. *Neurosurgery*. 2020. Epub 2020/06/05. doi: 10.1093/neuros/nyaa202. PubMed PMID: 32497210.

120. Palacios EM, Owen JP, Yuh EL, Wang MB, Vassar MJ, Ferguson AR, Diaz-Arrastia R, Giacino JT, Okonkwo DO, Robertson CS, Stein MB, **Temkin N**, Jain S, McCrea M, **MacDonald CL**, Levin HS, Manley GT, Mukherjee P. The evolution of white matter microstructural changes after mild traumatic brain injury: A longitudinal DTI and NODDI study. *Sci Adv*. 2020;6(32):eaaz6892. Epub 2020/08/22. doi: 10.1126/sciadv.aaz6892. PubMed PMID: 32821816; PubMed Central PMCID: PMC7413733.

121. Pan J, Barros G, Greil ME, Meyer RM, Ene CI, **Chesnut RM**. Pseudoaneurysm of the Superficial Temporal Artery After Intracranial Pressure Monitoring Device Placement: Case Report of a Rare Complication. *Oper Neurosurg (Hagerstown)*. 2020;19(3):288-91. Epub 2020/06/06. doi: 10.1093/ons/opaa151. PubMed PMID: 32503046.

122. Pandey AS, Ringer AJ, Rai A, Kan PT, Jabbour PM, Siddiqui A, Levy E, Snyder KV, Riina HA, Tanweer O, **Levitt MR**, **Kim LJ**, Veznedaroglu E, Binning M, Arthur AS, Mocco J, Schirmer CM, Thompson BG, Langer D. Letter: Considerations for Performing Emergent Neurointerventional Procedures in a COVID-19 Environment. *Neurosurgery*. 2020;87(2):E203-e6. Epub 2020/05/03. doi: 10.1093/neuros/nyaa173. PubMed PMID: 32358606; PubMed Central PMCID: PMC7197580.

123. Pandey AS, Ringer AJ, Rai AT, Kan P, Jabbour P, Siddiqui AH, Levy EI, Snyder KV, Riina H, Tanweer O, **Levitt MR**, **Kim LJ**, Veznedaroglu E, Binning MJ, Arthur AS, Mocco J, Schirmer C, Thompson BG, Langer D. Minimizing SARS-CoV-2 exposure when performing surgical interventions during the COVID-19 pandemic. *J Neurointerv Surg*. 2020;12(7):643-7. Epub 2020/05/22. doi: 10.1136/neurintsurg-2020-016161. PubMed PMID: 32434798; PubMed Central PMCID: PMC7298685.

124. Parikh SR, Avansino JR, Dick AA, Enriquez BK, Geiduschek JM, Martin LD, McDonald RA, Yandow SM, Zerr DM, **Ojemann JG**. Collaborative Multidisciplinary Incident Command at Seattle Children's Hospital for Rapid Preparatory Pediatric Surgery Countermeasures to the COVID-19 Pandemic. *J Am Coll Surg*. 2020;231(2):269-74.e1. Epub 2020/04/15. doi: 10.1016/j.jamcollsurg.2020.04.012. PubMed PMID: 32289376; PubMed Central PMCID: PMC7151263.

125. Pattwell SS, Arora S, Cimino PJ, Ozawa T, Szulzewsky F, Hoellerbauer P, Bonifert T, Hoffstrom BG, Boiani NE, Bolouri H, Correnti CE, Oldrini B, Silber JR, Squatrito M, Paddison PJ, **Holland EC**. A kinase-deficient NTRK2 splice variant predominates in glioma and amplifies several oncogenic signaling pathways. *Nat Commun*. 2020;11(1):2977. Epub 2020/06/14. doi: 10.1038/s41467-020-16786-5. PubMed PMID: 32532995; PubMed Central PMCID: PMC7293284.

126. Pattwell SS, Konnick EQ, Liu YJ, Yoda RA, **Sekhar LN**, Cimino PJ. Neurotrophic Receptor Tyrosine Kinase 2 (NTRK2) Alterations in Low-Grade Gliomas: Report of a Novel Gene Fusion Partner in a Pilocytic Astrocytoma and Review of the Literature. *Case Rep Pathol*. 2020;2020:5903863. Epub 2020/02/23. doi: 10.1155/2020/5903863. PubMed PMID: 32082673; PubMed Central PMCID: PMC7013287.

127. Pfeifauf KD, Said AM, Naidoo SD, Skolnick GB, Kestle JRW, **Lee A**, Birgfeld C, Anderson RCE, Gociman B, Siddiqi FA, Pollack IF, Goldstein JA, Tamber M, Imahiyerobo T, Smyth MD, Patel KB. Evaluation of the Patient-Practitioner Consultation on Surgical Treatment Options for Patients With

Craniosynostosis. *J Craniofac Surg.* 2020;31(5):1186-90. Epub 2020/07/08. doi: 10.1097/scs.0000000000006327. PubMed PMID: 32634133.

128. Pindrik J, Riva-Cambrin J, Kulkarni AV, Alvey JS, Reeder RW, Pollack IF, Wellons JC, Jackson EM, Rozzelle CJ, Whitehead WE, Limbrick DD, Naftel RP, Shannon C, McDonald PJ, Tamber MS, Hankinson TC, **Hauptman JS**, Simon TD, Krieger MD, Holubkov R, Kestle JRW. Surgical resource utilization after initial treatment of infant hydrocephalus: comparing ETV, early experience of ETV with choroid plexus cauterization, and shunt insertion in the Hydrocephalus Clinical Research Network. *J Neurosurg Pediatr.* 2020:1-9. Epub 2020/06/20. doi: 10.3171/2020.4.Peds19632. PubMed PMID: 32559741.

129. Prince E, Whelan R, Donson A, Staulcup S, Hengartner A, Vijmasi T, Agwu C, Lillehei KO, Foreman NK, Johnston JM, Massimi L, Anderson RCE, Souweidane MM, Naftel RP, Limbrick DD, Grant G, Niazi TN, Dudley R, Kilburn L, Jackson EM, Jallo GI, Ginn K, Smith A, Chern JJ, **Lee A**, Drapeau A, Krieger MD, Handler MH, Hankinson TC. Transcriptional analyses of adult and pediatric adamantinomatous craniopharyngioma reveals similar expression signatures regarding potential therapeutic targets. *Acta Neuropathol Commun.* 2020;8(1):68. Epub 2020/05/15. doi: 10.1186/s40478-020-00939-0. PubMed PMID: 32404202; PubMed Central PMCID: PMC7222517.

130. *Prolo LM*, *Bass DJ*, Bauer JM, **Browd SR**. Letter to the Editor. Posterior transdural approach for cervical stenosis caused by retroflexion of anterior elements in a child with Pfeiffer syndrome. *J Neurosurg Pediatr.* 2020:1-2. Epub 2020/03/14. doi: 10.3171/2020.1.Peds2031. PubMed PMID: 32168492.

131. Purcell LN, Reiss R, *Eaton J*, Kumwenda KK, Quinsey C, Charles A. Survival and Functional Outcomes at Discharge After Traumatic Brain Injury in Children versus Adults in Resource-Poor Setting. *World Neurosurg.* 2020;137:e597-e602. Epub 2020/02/23. doi: 10.1016/j.wneu.2020.02.062. PubMed PMID: 32084614; PubMed Central PMCID: PMC7202968.

132. Quiroga E, **Levitt MR**, Czerwonko ME, Starnes BW, Tran NT, Singh N. Management of Moderate Blunt Thoracic Aortic Injuries in Patients with Intracranial Hemorrhage. *Ann Vasc Surg.* 2020. Epub 2020/12/29. doi: 10.1016/j.avsg.2020.11.009. PubMed PMID: 33359706.

133. **Ramirez JM**. Looking into the future: The Journal of Neurophysiology. *J Neurophysiol.* 2020;124(1):1-3. Epub 2020/05/07. doi: 10.1152/jn.00251.2020. PubMed PMID: 32374209.

134. **Ramirez JM**, Karlen-Amarante M, Wang JJ, Bush NE, Carroll MS, Weese-Mayer DE, Huff A. The Pathophysiology of Rett Syndrome With a Focus on Breathing Dysfunctions. *Physiology (Bethesda).* 2020;35(6):375-90. Epub 2020/10/15. doi: 10.1152/physiol.00008.2020. PubMed PMID: 33052774.

135. Rocque BG, Weprin BE, Blount JP, Hopson BD, Drake JM, Hamilton MG, **Williams MA**, White PH, Orrico KO, Martin JE. Health care transition in pediatric neurosurgery: a consensus statement from the American Society of Pediatric Neurosurgeons. *J Neurosurg Pediatr.* 2020:1-9. Epub 2020/02/15. doi: 10.3171/2019.12.Peds19524. PubMed PMID: 32059192.

136. Russell JA, Epstein LG, Bonnie RJ, Conwit R, Graf WD, Kirschen M, Kurek JA, Larriviere DG, Pascuzzi RM, Rizzo M, Sattin JA, Simmons Z, Taylor L, **Williams MA**. In defense of the AAN position on lawful physician-hastened death. *Neurology.* 2020;94(15):641-3. Epub 2020/03/18. doi: 10.1212/wnl.0000000000009237. PubMed PMID: 32179699.



137. Sahai N, Bard AM, Devinsky O, **Kalume F**. Disordered autonomic function during exposure to moderate heat or exercise in a mouse model of Dravet syndrome. *Neurobiol Dis.* 2021;147:105154. Epub 2020/11/05. doi: 10.1016/j.nbd.2020.105154. PubMed PMID: 33144172; PubMed Central PMCID: PMC7725859.
138. **Saigal R**, Akbarnia BA, Eastlack RK, Bagheri A, Tran S, Brown D, Bagheri R, Mundis GM. Anterior Column Realignment: Analysis of Neurological Risk and Radiographic Outcomes. *Neurosurgery.* 2020;87(3):E347-e54. Epub 2020/04/17. doi: 10.1093/neuros/nyaa064. PubMed PMID: 32297951.
139. Sandler M, Hoang C, Mak HY, **Levitt MR**. Effect of bodyweight on VerifyNow Aspirin platelet function test: a retrospective review. *J Neurointerv Surg.* 2020. Epub 2020/12/02. doi: 10.1136/neurintsurg-2020-016842. PubMed PMID: 33257413.
140. Schimek N, Burke-Conte Z, Abernethy J, Schimek M, Burke-Conte C, Bobola M, Stocco A, **Mourad PD**. Repeated Application of Transcranial Diagnostic Ultrasound Towards the Visual Cortex Induced Illusory Visual Percepts in Healthy Participants. *Front Hum Neurosci.* 2020;14:66. Epub 2020/03/21. doi: 10.3389/fnhum.2020.00066. PubMed PMID: 32194387; PubMed Central PMCID: PMC7062642.
141. Schirmer CM, Ringer AJ, Arthur AS, Binning MJ, Fox WC, James RF, **Levitt MR**, Tawk RG, Veznedaroglu E, **Walker M**, Spiotta AM. Delayed presentation of acute ischemic strokes during the COVID-19 crisis. *J Neurointerv Surg.* 2020;12(7):639-42. Epub 2020/05/30. doi: 10.1136/neurintsurg-2020-016299. PubMed PMID: 32467244; PubMed Central PMCID: PMC7295853.
142. Schmidt FA, Wong T, Kirnaz S, Taboada N, Assaker R, **Hofstetter C**, Kim JS, Parajón A, Taylor P, Assous M, Härtl R. Development of a Curriculum for Minimally Invasive Spine Surgery (MISS). *Global Spine J.* 2020;10(2 Suppl):122s-5s. Epub 2020/06/13. doi: 10.1177/2192568220910711. PubMed PMID: 32528795; PubMed Central PMCID: PMC7263324.
143. **Sekhar LN**, Juric-Sekhar G, *Qazi Z*, **Patel A**, *McGrath LB, Jr.*, Pridgeon J, Kalavakonda N, Hannaford B. The Future of Skull Base Surgery: A View Through Tinted Glasses. *World Neurosurg.* 2020;142:29-42. Epub 2020/07/01. doi: 10.1016/j.wneu.2020.06.172. PubMed PMID: 32599213; PubMed Central PMCID: PMC7319930.
144. **Sekhar LN**, *Zeeshan Q*, Natarajan SK. In Reply: Three-Vessel Anastomosis for Direct Bihemispheric Cerebral Revascularization. *Oper Neurosurg (Hagerstown).* 2020;19(4):E458-e60. Epub 2020/07/07. doi: 10.1093/ons/opaa190. PubMed PMID: 32629481
145. *Sen RD*, **Lee A**, **Browd SR**, **Ellenbogen RG**, **Hauptman JS**. Issues of consent and assent in pediatric neurosurgery. *Childs Nerv Syst.* 2021;37(1):33-7. Epub 2020/10/18. doi: 10.1007/s00381-020-04907-w. PubMed PMID: 33068156.
146. *Sivakanthan S*, Pan J, **Kim L**, **Ellenbogen R**, **Saigal R**. Economic Impact of COVID-19 on a High-Volume Academic Neurosurgical Practice. *World Neurosurg.* 2020;143:e561-e6. Epub 2020/08/14. doi: 10.1016/j.wneu.2020.08.028. PubMed PMID: 32791222; PubMed Central PMCID: PMC7416742.

147. Sivakanthan S, Williams JR, Feroze AH, Eaton J, Pan ZJ, Boop S, McGrath LB, Harmon K, **Hofstetter CP**. Endoscopic Spine Surgery in Athletes: Case Series and Review of Literature. *World Neurosurg.* 2021;145:702-7. Epub 2020/09/07. doi: 10.1016/j.wneu.2020.08.211. PubMed PMID: 32891833.
148. Sobol DL, **Lee A**, Susarla SM. Unusual Combined Orbital Roof and Orbital Floor Fractures in A Pediatric Patient. *Plast Reconstr Surg Glob Open.* 2020;8(12):e3324. Epub 2021/01/12. doi: 10.1097/gox.0000000000003324. PubMed PMID: 33425626; PubMed Central PMCID: PMC7787296.
149. Song AJ, Shi W, **Ellenbogen RG**, Venur VA, Lo SS. Commentary: Stereotactic Radiosurgery for Intracranial Noncavernous Sinus Benign Meningioma: International Stereotactic Radiosurgery Society Systematic Review, Meta-Analysis and Practice Guideline. *Neurosurgery.* 2020;87(5):E537-e8. Epub 2020/06/23. doi: 10.1093/neuros/nyaa264. PubMed PMID: 32570276.
150. Srinivasan VM, Hadley CC, Prablek M, LoPresti M, Chen SH, Peterson EC, Sweid A, Jabbour P, Young C, **Levitt M**, Osburn JW, Burkhardt JK, Johnson J, Kan P. Feasibility and safety of transradial access for pediatric neurointerventions. *J Neurointerv Surg.* 2020;12(9):893-6. Epub 2020/04/04. doi: 10.1136/neurintsurg-2020-015835. PubMed PMID: 32241922.
151. Stein MB, Yuh E, Jain S, Okonkwo DO, **Mac Donald CL**, Levin H, Giacino JT, Dikmen S, Vassar MJ, Diaz-Arrastia R, Robertson CS, Nelson LD, McCrea M, Sun X, **Temkin N**, Taylor SR, Markowitz AJ, Manley GT, Mukherjee P. Smaller Regional Brain Volumes Predict Posttraumatic Stress Disorder at 3 Months After Mild Traumatic Brain Injury. *Biol Psychiatry Cogn Neurosci Neuroimaging.* 2020. Epub 2021/01/03. doi: 10.1016/j.bpsc.2020.10.008. PubMed PMID: 33386283.
152. Szulzewsky F, Arora S, Hoellerbauer P, King C, Nathan E, Chan M, Cimino PJ, Ozawa T, Kawauchi D, Pajtlar KW, Gilbertson RJ, Paddison PJ, Vasioukhin V, Gujral TS, **Holland EC**. Comparison of tumor-associated YAP1 fusions identifies a recurrent set of functions critical for oncogenesis. *Genes Dev.* 2020;34(15-16):1051-64. Epub 2020/07/18. doi: 10.1101/gad.338681.120. PubMed PMID: 32675324; PubMed Central PMCID: PMC7397849.
153. Takadera M, Satomi K, Szulzewsky F, Cimino PJ, **Holland EC**, Yamamoto T, Ichimura K, Ozawa T. Phenotypic characterization with somatic genome editing and gene transfer reveals the diverse oncogenicity of ependymoma fusion genes. *Acta Neuropathol Commun.* 2020;8(1):203. Epub 2020/11/25. doi: 10.1186/s40478-020-01080-8. PubMed PMID: 33228790; PubMed Central PMCID: PMCPMC7684901.
154. Tamber MS, Kestle JRW, Reeder RW, Holubkov R, Alvey J, **Browd SR**, Drake JM, Kulkarni AV, Limbrick DD, McDonald PJ, Rozzelle CJ, Simon TD, Naftel R, Shannon CN, Wellons JC, Whitehead WE, Riva-Cambrin J. Temporal trends in surgical procedures for pediatric hydrocephalus: an analysis of the Hydrocephalus Clinical Research Network Core Data Project. *J Neurosurg Pediatr.* 2020:1-8. Epub 2020/12/19. doi: 10.3171/2020.7.Peds20142. PubMed PMID: 33338996.
155. Thatikunta M, Eaton J, Nuru M, Nauta HJ. Intraoperative CT for Neuronavigation Guidance and Confirmation of Foramen Ovale Cannulation for Glycerol Trigeminal Rhizotomy: A Technical Report and Case Series. *Cureus.* 2020;12(5):e8100. Epub 2020/06/17. doi: 10.7759/cureus.8100. PubMed PMID: 32542155; PubMed Central PMCID: PMC7292704.

156. Tian X, Tian B, Shi Z, Wu X, Peng W, Zhang X, Malhotra A, Mossa-Basha M, **Sekhar L**, Liu Q, Lu J, Hu C, Zhu C. Assessment of Intracranial Atherosclerotic Plaques Using 3D Black-Blood MRI: Comparison With 3D Time-of-Flight MRA and DSA. *J Magn Reson Imaging*. 2021;53(2):469-78. Epub 2020/08/31. doi: 10.1002/jmri.27341. PubMed PMID: 32864816.
157. Unterweger J, Seeber M, Zanos S, **Ojemann JG**, Scherer R. ECoG Beta Suppression and Modulation During Finger Extension and Flexion. *Front Neurosci*. 2020;14:35. Epub 2020/03/03. doi: 10.3389/fnins.2020.00035. PubMed PMID: 32116497; PubMed Central PMCID: PMC7031656.
158. Vellayappan BA, Foote M, Chang EL, Suh JH, **Saigal R, Hofstetter CP**, Lo SS. Commentary: Mature Imaging-Based Outcomes Supporting Local Control for Complex Reirradiation Salvage Spine Stereotactic Body Radiotherapy. *Neurosurgery*. 2020;87(4):E498-e9. Epub 2020/05/10. doi: 10.1093/neuros/nyaa159. PubMed PMID: 32386215.
159. Vitanza NA, Biery MC, Myers C, Ferguson E, Zheng Y, Girard EJ, Przystal JM, Park G, Noll A, Pakiam F, Winter CA, Morris SM, Sarthy J, Cole BL, Leary SES, **Crane C**, Lieberman NAP, Mueller S, Nazarian J, Gottardo R, Brusniak MY, Mhyre AJ, Olson JM. Optimal therapeutic targeting by HDAC inhibition in biopsy-derived treatment-naïve diffuse midline glioma models. *Neuro Oncol*. 2020. Epub 2020/11/02. doi: 10.1093/neuonc/noaa249. PubMed PMID: 33130903.
160. **Walker M, Kim LJ, Levitt MR**, Ghodke B. Spasm, stenosis and shelves: balloon-assisted tracking techniques in endovascular interventions. *J Cerebrovasc Endovasc Neurosurg*. 2020;22(1):26-30. Epub 2020/07/01. doi: 10.7461/jcen.2020.22.1.26. PubMed PMID: 32596141; PubMed Central PMCID: PMC7307611.
161. **Walker M, Levitt MR**, Ghodke BV. Three strikes? Failed vascular access in mechanical thrombectomy. *Clin Case Rep*. 2020;8(7):1329-30. Epub 2020/07/23. doi: 10.1002/ccr3.2879. PubMed PMID: 32695393; PubMed Central PMCID: PMC7364070.
162. Wang A, Halbach VV, Dowd CF, Alexander MD, **Hallam DK**, Ghodke B, Moazami G, Mandigo GK, Lavine SD, Meyers PM. Delayed-Onset Cranial Nerve Palsy After Transvenous Embolization of Indirect Carotid Cavernous Fistulas. *J Neuroophthalmol*. 2020. Epub 2020/09/02. doi: 10.1097/wno.0000000000001067. PubMed PMID: 32868558.
163. Wang MC, Boop FA, Kondziolka D, Resnick DK, Kalkanis SN, Koehnen E, Selden NR, Heilman CB, Valadka AB, Cockroft KM, Wilson JA, **Ellenbogen RG**, Asher AL, Byrne RW, Camarata PJ, Huang J, Knightly JJ, Levy EI, Lonser RR, Connolly ES, Meyer FB, Liau LM. Continuous improvement in patient safety and quality in neurological surgery: the American Board of Neurological Surgery in the past, present, and future. *J Neurosurg*. 2020:1-7. Epub 2020/10/17. doi: 10.3171/2020.6.Jns202066. PubMed PMID: 33065539.
164. Wang Y, Wild AT, Turcan S, Wu WH, Sigel C, Klimstra DS, Ma X, Gong Y, **Holland EC**, Huse JT, Chan TA. Targeting therapeutic vulnerabilities with PARP inhibition and radiation in IDH-mutant gliomas and cholangiocarcinomas. *Sci Adv*. 2020;6(17):eaaz3221. Epub 2020/06/05. doi: 10.1126/sciadv.aaz3221. PubMed PMID: 32494639; PubMed Central PMCID: PMC7176409.

165. Weaver JJ, **Hallam DK**, Chick JFB, Vaidya S, Shin DS, Natarajan N, Rad N, Reis J, Koo KSH, Shivaram GM, Thibodeau A, Apkon S, Monroe EJ. Transforaminal intrathecal delivery of nusinersen for older children and adults with spinal muscular atrophy and complex spinal anatomy: an analysis of 200 consecutive injections. *J Neurointerv Surg.* 2021;13(1):75-8. Epub 2020/05/31. doi: 10.1136/neurintsurg-2020-016058. PubMed PMID: 32471828.
166. Weaver KE, Caldwell DJ, Cronin JA, Kuo CH, Kogan M, Houston B, Sanchez V, Martinez V, **Ojemann JG**, Rane S, **Ko AL**. Concurrent Deep Brain Stimulation Reduces the Direct Cortical Stimulation Necessary for Motor Output. *Mov Disord.* 2020;35(12):2348-53. Epub 2020/09/12. doi: 10.1002/mds.28255. PubMed PMID: 32914888.
167. Wellons JC, Grant G, Krieger MD, Ragheb J, Robinson S, Weprin B, **Ojemann J**. Editorial. Early lessons in the management of COVID-19 for the pediatric neurosurgical community from the leadership of the American Society of Pediatric Neurosurgeons. *J Neurosurg Pediatr.* 2020:1-2. Epub 2020/04/11. doi: 10.3171/2020.3.Peds20215. PubMed PMID: 32276256; PubMed Central PMCID: PMC7164396.
168. Williams JR, Young CC, Vitanza NA, McGrath M, Feroze AH, **Browd SR**, **Hauptman JS**. Progress in diffuse intrinsic pontine glioma: advocating for stereotactic biopsy in the standard of care. *Neurosurg Focus.* 2020;48(1):E4. Epub 2020/01/03. doi: 10.3171/2019.9.Focus19745. PubMed PMID: 31896081.
169. **Williams MA**, van der Willigen T, Gray DD, Hamilton MG. Nowhere to Go: The Challenge of Health Care Transition for Youth with Hydrocephalus. *World Neurosurg.* 2020;134:647-9. Epub 2020/02/16. doi: 10.1016/j.wneu.2019.12.043. PubMed PMID: 32059266.
170. Wongchareon K, Thompson HJ, Mitchell PH, Barber J, **Temkin N**. IMPACT and CRASH prognostic models for traumatic brain injury: external validation in a South-American cohort. *Inj Prev.* 2020;26(6):546-54. Epub 2020/01/22. doi: 10.1136/injuryprev-2019-043466. PubMed PMID: 31959626.
171. Wu L, Christensen D, Call L, Vranic J, Colip C, Hippe DS, Witt C, **Bonow RH**, Mossa-Basha M. Natural History of Blunt Cerebrovascular Injury: Experience Over a 10-year Period at a Level I Trauma Center. *Radiology.* 2020;297(2):428-35. Epub 2020/09/09. doi: 10.1148/radiol.2020192866. PubMed PMID: 32897159.
172. Xu LB, Yue JK, Korley F, Puccio AM, Yuh EL, Sun X, Rabinowitz M, Vassar MJ, Taylor SR, Winkler EA, Puffer RC, Deng H, McCrea M, Stein MB, Robertson CS, Levin HS, Dikmen S, **Temkin NR**, Giacino JT, Mukherjee P, Wang KKW, Okonkwo DO, Markowitz AJ, Jain S, Manley GT, Diaz-Arrastia R. High-Sensitivity C-Reactive Protein Is a Prognostic Biomarker of Six-Month Disability after Traumatic Brain Injury: Results from the TRACK-TBI Study. *J Neurotrauma.* 2020. Epub 2020/11/10. doi: 10.1089/neu.2020.7177. PubMed PMID: 33161875.
173. Young CC, **Hofstetter CP**. Traumatic Fetal Subdural Hematoma and Unstable Maternal Spine Fracture. *World Neurosurg.* 2020;142:368-70. Epub 2020/07/20. doi: 10.1016/j.wneu.2020.07.060. PubMed PMID: 32683009.
174. Young CC, Williams JR, Feroze AH, McGrath M, **Ravanpay AC**, **Ellenbogen RG**, **Ojemann JG**, **Hauptman JS**. Pediatric functional hemispherectomy: operative techniques and complication avoidance. *Neurosurg Focus.* 2020;48(4):E9. Epub 2020/04/03. doi: 10.3171/2020.1.Focus19889. PubMed PMID: 32234987.

175. Youngblood MW, Miyagishima DF, Jin L, Gupte T, Li C, Duran D, Montejó JD, Zhao A, Sheth A, Tyrtova E, Özdoğan K, Iacoangeli F, Peyre M, Boetto J, Pease M, Avşar T, Huttner A, Bilguvar K, Kilic T, Pamir MN, Amankulor N, Kalamirides M, Erson-Omay EZ, Günel M, Moliterno J. Associations of Meningioma Molecular Subgroup and Tumor Recurrence. *Neuro Oncol.* 2020. Epub 2020/10/18. doi: 10.1093/neuonc/noaa226. PubMed PMID: 33068421.

176. Yuste R, Hawrylycz M, Aalling N, Aguilar-Valles A, Arendt D, Arnedillo RA, Ascoli GA, Bielza C, Bokharaie V, Bergmann TB, Bystron I, Capogna M, Chang Y, Clemens A, de Kock CPJ, DeFelipe J, Dos Santos SE, Dunville K, Feldmeyer D, Fiáth R, Fishell GJ, Foggetti A, Gao X, Ghaderi P, Goriounova NA, Güntürkün O, Hagihara K, Hall VJ, Helmstaedter M, Herculano S, Hilscher MM, Hirase H, Hjerling-Leffler J, Hodge R, Huang J, Huda R, Khodosevich K, Kiehn O, Koch H, Kuebler ES, Kühnemund M, Larrañaga P, Lelieveldt B, Louth EL, Lui JH, Mansvelter HD, Marin O, Martínez-Trujillo J, Moradi Chameh H, Nath A, Nedergaard M, Němec P, Ofer N, Pfisterer UG, Pontes S, Redmond W, Rossier J, Sanes JR, Scheuermann R, Serrano-Saiz E, Steiger JF, Somogyi P, Tamás G, Tolias AS, Tosches MA, García MT, Vieira HM, Wozny C, Wuttke TV, Yong L, Yuan J, Zeng H, **Lein E**. A community-based transcriptomics classification and nomenclature of neocortical cell types. *Nat Neurosci.* 2020;23(12):1456-68. Epub 2020/08/26. doi: 10.1038/s41593-020-0685-8. PubMed PMID: 32839617; PubMed Central PMCID: PMC7683348.

#### **PUBLISHED BOOKS AND BOOK CHAPTERS**

1. **Sekhar LN**, **Zeeshan Q**. Cerebral Revascularization for Brain Tumors. In Behari S, Jaiswal AK, Srivastava AK, Mehrotra A, Keshri A, Das KK, Sardhara J, Sankar R, Bhaisora KS, Maurya VP, Verma PK (Eds), *The Operative Atlas of Neurosurgery, Volume 1, A Compendium of 120 Neuro-oncological, Case-based, Surgical Approaches, SGPGI Neurosurgery*, Thieme, Delhi, India, February 2020, Chapter 1.34, pp. 369-398.
2. Feroze AH, Barros G, Sen R, Abecassis IJ, **Walker M**, **Hallam DK**, Ghodke BV, **Kim LJ**, **Levitt MR**. Spinal dural arteriovenous fistulas and malformations. In: Park MS, Kalani MYS, Stiefel MF, editors. *Neurointerventional Surgery: An Evidence Based Approach*. New York, NY: Thieme Publishing; 2020.
3. Abecassis IJ, Young CC, Sen RD, Kelly CM, **Levitt MR**. Radiation Induced Stenosis. In: Park MS, Kalani MYS, DeHavenon A, McNally JS, editors. *Carotid Artery Disease – Evaluation and Management*. New York, NY: Springer; 2020.
4. Barros G, Osbun JW, **Kim LJ**, **Levitt MR**. Thromboembolic Complications While Coiling. In: Gonzalez FL, Park MS, Harrigan MR, editors. *Neurointerventional Techniques: Tricks of the Trade*. 2nd ed. New York, NY: Thieme Publishing; 2020.
5. Sen RD, Moe K. Transorbital Endoscopic and Neuroendoscopic Surgery. In: Sindwani R, editor. *Endoscopic Surgery of the Orbit*. New York, NY: Elsevier; 2020.
6. McGrath LB, **Levitt MR**. Brainstem and thalamic intraparenchymal hemorrhage. In: Spetzler RF, Kalani MYS, Lawton MT, eds. *Surgery of the Brainstem*. New York, NY: Thieme; 2020

#### **OTHER (preprint)**

1. **Walker M, Young CC, Sharma M, Levitt MR, Tirschwell DL, Investigators WS.** SARS-CoV-2 Infection and Stroke: Coincident or Causal? medRxiv. 2020. Epub 2020/07/29. doi: <https://doi.org/10.1101/2020.07.17.20156463>.