



Kelly Mahaney

Assistant Professor of Neurosurgery

 Curriculum Vitae available Online

CLINICAL OFFICE (PRIMARY)

- **Child Neurology**

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Bio

BIO

Dr. Mahaney is a Pediatric Neurosurgeon with clinical interest in Hydrocephalus, Craniovertebral Junction abnormalities, Spasticity, Spinal dysraphism and Myelomeningocele, Central Nervous System tumors, and Pediatric Epilepsy surgery. She completed residency training at the University of Iowa Hospitals and Clinics and subspecialty Pediatric Neurosurgery training at The Hospital for Sick Children in Toronto and the Barrow Neurologic Institute at Phoenix Children's Hospital. She is interested in advancing Neuro-endoscopic techniques in Pediatric Neurosurgical practice. Dr. Mahaney's research focuses on delineating the role of iron in the development of post-hemorrhagic hydrocephalus.

CLINICAL FOCUS

- Neuro-endoscopy
- Spinal Dysraphism
- Myelomeningocele
- Spasticity
- Craniovertebral Junction abnormalities
- Neurological Surgery

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Neurosurgery
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Interim Chief, Pediatric Neurosurgery Division, Stanford University Department of Neurosurgery, (2022-2023)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, AANS/CNS Joint Section on Pediatric Neurosurgery (2015 - present)

- Member, AANS/CNS Joint Section on Cerebrovascular Neurosurgery (2010 - present)
- Member, Congress of Neurologic Surgeons (2007 - present)
- Member, American Association of Neurologic Surgeons (2007 - present)

PROFESSIONAL EDUCATION

- Board Certification: Focused Practice in Pediatric Neurological Surgery, American Board of Neurological Surgery (2019)
- Residency: University of Iowa Hospitals and Clinics (2014) IA
- Medical Education: St Louis University School of Medicine (2007) MO
- Board Certification: Neurological Surgery, American Board of Neurological Surgery (2019)
- Fellowship: Barrow Neurologic Institute at Phoenix Childrens Ped Neurosurgery Fellowship (2015) AZ

Publications

PUBLICATIONS

- **H3.3-G34R Mutation-Mediated Epigenetic Reprogramming Leads to Enhanced Efficacy of Immune Stimulatory Gene Therapy in Diffuse Hemispheric Gliomas.** *bioRxiv : the preprint server for biology*
Garcia-Fabiani, M. B., Haase, S., Banerjee, K., Zhu, Z., McClellan, B. L., Mujeeb, A. A., Li, Y., Tronrud, C. E., Varela, M. L., West, M. E., Yu, J., Kadiyala, P., Taher, et al
2025
- **Success of Bone Ossification After Posterior Vault Distraction Osteogenesis in Patients With Craniosynostosis.** *The Journal of craniofacial surgery*
Sayadi, J. J., Lujan-Hernandez, J., Givechian, K. B., Mackay, D., Lorenz, H. P., Grant, G., Mahaney, K., Hong, D. S., Khosla, R. K.
2024
- **BIOPROCESSING OF VIABLE SURGICAL PEDIATRIC BRAIN TUMOR SPECIMENS FOR GENOME-GUIDED PERSONALIZED DRUG TESTING**
Nasajpour, E., Tran, C., Garcia, C., Xing, L., Lyle, G., Guinle, M., Bagley, B., Mahaney, K., Vogel, H., Learned, K., Vaske, O., Grant, G., Prolo, et al
OXFORD UNIV PRESS INC.2024
- **Language-discordant care in pediatric neurosurgery: parent and provider perspectives on challenges and multilevel solutions to reduce disparities.** *Journal of neurosurgery. Pediatrics*
Ruiz Colon, G. D., Berecknye Merrell, S., Poon, D. C., Mahaney, K. B., Maher, C. O., Prolo, L. M.
2024: 1-7
- **Mechanism of chronic iatrogenic CSF leak following dural puncture-ventral dural leak: case report.** *Regional anesthesia and pain medicine*
Carroll, I. R., Lansinger, O., Do, H. M., Dodd, R., Mahaney, K., Li, D.
2024
- **Iron homeostasis and post-hemorrhagic hydrocephalus: a review.** *Frontiers in neurology*
Pan, S., Hale, A. T., Lemieux, M. E., Raval, D. K., Garton, T. P., Sadler, B., Mahaney, K. B., Strahle, J. M.
2023; 14: 1287559
- **Elevated cerebrospinal fluid iron and ferritin associated with early severe ventriculomegaly in preterm posthemorrhagic hydrocephalus.** *Journal of neurosurgery. Pediatrics*
Mahaney, K. B., Buddhala, C., Paturu, M., Morales, D. M., Smyser, C. D., Limbrick, D. D., Gummidipundi, S. E., Han, S. S., Strahle, J. M.
2022; 30 (2): 169-176
- **Development of an Integrated Risk Scale for Prediction of Shunt Placement After Neonatal Intraventricular Hemorrhage**
Jin, M. C., Parker, J. J., Rodrigues, A., Colon, G. R., Garcia, C. A., Mahaney, K. B., Grant, G. A., Prolo, L. M.
OXFORD UNIV PRESS INC.2022: 37-38
- **Development of an integrated risk scale for prediction of shunt placement after neonatal intraventricular hemorrhage.** *Journal of neurosurgery. Pediatrics*
Jin, M. C., Parker, J. J., Rodrigues, A. J., Ruiz Colón, G. D., Garcia, C. A., Mahaney, K. B., Grant, G. A., Prolo, L. M.
2022: 1-10

- **Incorporating patient-centered quality-of-life measures for outcome assessment after Chiari malformation type I decompression in a pediatric population: a pilot study.** *Journal of neurosurgery. Pediatrics*
Savchuk, S., Jin, M. C., Choi, S., Kim, L. H., Quon, J. L., Bet, A., Prolo, L. M., Hong, D. S., Mahaney, K. B., Grant, G. A.
2021: 1-8
- **Longitudinal CSF Iron Pathway Proteins in Post-Hemorrhagic Hydrocephalus: Associations with Ventricle Size and Neurodevelopmental Outcomes.** *Annals of neurology*
Strahle, J. M., Mahaney, K. B., Morales, D. M., Buddhala, C., Shannon, C. N., Wellons, J. C., Kulkarni, A. V., Jensen, H., Reeder, R. W., Holubkov, R., Riva-Cambrin, J. K., Whitehead, W. E., Rozzelle, et al
2021
- **Electrophysiological Characterization of Glioma using a Biomimetic Spheroid Model**
Kim, K., Tercan, S., Baday, M., Mahaney, K. B., Recht, L. D., Rajadas, J., Patel, C. B., IEEE
IEEE.2021: 86-89
- **Intraventricular Hemorrhage Clearance in Human Neonatal Cerebrospinal Fluid: Associations With Hydrocephalus.** *Stroke*
Mahaney, K. B., Buddhala, C., Paturu, M., Morales, D., Limbrick, D. D., Strahle, J. M.
2020: STROKEAHA119028744
- **Successful Use of Frameless Stereotactic Radiosurgery for Treatment of Recurrent Brain Metastases in an 18 Month Old Child.** *The International journal of neuroscience*
Rahimy, E., Chuang, C., Spunt, S. L., Mahaney, K., Donaldson, S. S., Gibbs, I. C., Soltys, S. G., Pollom, E., Hiniker, S. M.
2019: 1–6
- **Concurrent Venous Stenting of the Transverse and Occipito-Marginal Sinuses: An Analogy with Parallel Hemodynamic Circuits.** *Journal of neurosciences in rural practice*
Buell, T. J., Raper, D. M., Ding, D., Chen, C. J., Wang, T. R., Taylor, D. G., Ilyas, A., Kalani, M. Y., Park, M. S., Mahaney, K. B., Liu, K. C.
2019; 10 (2): 334-338
- **Concurrent Venous Stenting of the Transverse and Occipito-Marginal Sinuses: An Analogy with Parallel Hemodynamic Circuits** *JOURNAL OF NEUROSCIENCES IN RURAL PRACTICE*
Buell, T. J., Raper, D. M. S., Ding, D., Chen, C., Wang, T. R., Taylor, D. G., Ilyas, A., Kalani, M. Y. S., Park, M. S., Mahaney, K. B., Liu, K. C.
2019; 10 (2): 334–38
- **COMMENT NEUROSURGERY**
Mahaney, K. B., Grant, G. A.
2018; 83 (3): 487
- **Congenital Fistulae of the Stapedial Footplate and Round Window Membrane: An Unusual Cause of Recurrent Meningitis.** *JAMA otolaryngology-- head & neck surgery*
Ruhl, D. S., Koehn, H. A., Mahaney, K. B., Kesser, B. W.
2017
- **Pediatric meningiomas: 65-year experience at a single institution.** *Journal of neurosurgery. Pediatrics*
Grossbach, A. J., Mahaney, K. B., Menezes, A. H.
2017: 1-9
- **Age-related differences in unruptured intracranial aneurysms: 1-year outcomes** *JOURNAL OF NEUROSURGERY*
Mahaney, K. B., Brown, R. D., Meissner, I., Piepgras, D. G., Huston, J., Zhang, J., Torner, J. C.
2014; 121 (5): 1024-1038
- **Intradiploic occipital pseudomeningocele in a patient with remote history of surgical treatment of Chiari malformation** *JOURNAL OF NEUROSURGERY-SPINE*
Mahaney, K. B., Menezes, A. H.
2014; 21 (5): 769-772
- **Long-term incidence and risk factors for development of spinal deformity following resection of pediatric intramedullary spinal cord tumors.** *Journal of neurosurgery. Pediatrics*
Ahmed, R., Menezes, A. H., Awe, O. O., Mahaney, K. B., Torner, J. C., Weinstein, S. L.
2014; 13 (6): 613-621

- **Alternative grafts in anterior cervical fusion** *CLINICAL NEUROLOGY AND NEUROSURGERY*
Chen, F., He, W., Mahaney, K., Noeller, J., Mhanna, N., Viljoen, S., Torner, J., Hitchon, P.
2013; 115 (10): 2049-2055
- **Risk of hemorrhagic complication associated with ventriculoperitoneal shunt placement in aneurysmal subarachnoid hemorrhage patients on dual antiplatelet therapy.** *Journal of neurosurgery*
Mahaney, K. B., Chalouhi, N., Viljoen, S., Smietana, J., Kung, D. K., Jabbour, P., Bulsara, K. R., Howard, M., Hasan, D. M.
2013; 119 (4): 937-942
- **Acute postoperative neurological deterioration associated with surgery for ruptured intracranial aneurysm: incidence, predictors, and outcomes** *JOURNAL OF NEUROSURGERY*
Mahaney, K. B., Todd, M. M., Bayman, E. O., Torner, J. C.
2012; 116 (6): 1267-1278
- **Macrophage Imaging Within Human Cerebral Aneurysms Wall Using Ferumoxytol-Enhanced MRI: A Pilot Study** *ARTERIOSCLEROSIS THROMBOSIS AND VASCULAR BIOLOGY*
Hasan, D. M., Mahaney, K. B., Magnotta, V. A., Kung, D. K., Lawton, M. T., Hashimoto, T., Winn, H. R., Saloner, D., Martin, A., Gahramanov, S., Dosa, E., Neuwelt, E., Young, et al
2012; 32 (4): 1032-1038
- **Cerebral Aneurysm Sac Growth as the Etiology of Recurrence After Successful Coil Embolization** *STROKE*
Hasan, D. M., Nadareyshvili, A. I., Hoppe, A. L., Mahaney, K. B., Kung, D. K., Raghavan, M. L.
2012; 43 (3): 866-868
- **Anterior-to-Posterior Circulation Approach for Mechanical Thrombectomy of an Acutely Occluded Basilar Artery Using the Penumbra Aspiration System** *WORLD NEUROSURGERY*
Liu, W., Kung, D. K., Mahaney, K. B., Rossen, J. D., Jabbour, P. M., Hasan, D. M.
2012; 77 (2)
- **Aspirin as a Promising Agent for Decreasing Incidence of Cerebral Aneurysm Rupture** *STROKE*
Hasan, D. M., Mahaney, K. B., Brown, R. D., Meissner, I., Piepgras, D. G., Huston, J., Capuano, A. W., Torner, J. C.
2011; 42 (11): 3156-3162
- **Variation of patient characteristics, management, and outcome with timing of surgery for aneurysmal subarachnoid hemorrhage** *JOURNAL OF NEUROSURGERY*
Mahaney, K. B., Todd, M. M., Torner, J. C.
2011; 114 (4): 1045-1053
- **ANATOMIC RELATIONSHIP OF THE OPTIC RADIATIONS TO THE ATRIUM OF THE LATERAL VENTRICLE: DESCRIPTION OF A NOVEL ENTRY POINT TO THE TRIGONE** *NEUROSURGERY*
Mahaney, K. B., Abdulrauf, S. I.
2008; 63 (4): 195-202
- **Dural arteriovenous fistula of the anterior condylar confluence and hypoglossal canal mimicking a jugular foramen tumor - Case report** *JOURNAL OF NEUROSURGERY*
Liu, J. K., Mahaney, K., Barnwell, S. L., McMenomey, S. O., Delashaw, J. B.
2008; 109 (2): 335-340
- **An anteromedial approach to the temporal horn to avoid injury to the optic radiation fibers and uncinata fasciculus: anatomical and technical note.** *Neurosurgical focus*
Coppens, J. R., Mahaney, K. B., Abdulrauf, S. I.
2005; 18 (6B): E3-?