



Ummey Hani, MBBS, MD

Postdoctoral Scholar, Neurosurgery

Bio

BIO

Hani is a Postdoctoral Research Fellow at Stanford University in the Neurosurgical Artificial Intelligence and Machine Learning Laboratory. She earned her medical degree from Sindh Medical College, Pakistan, and completed her internship at the Aga Khan University, where she was recognized as Class Valedictorian and among the top five interns of 2022. She then pursued a two-year postdoctoral fellowship at Carolina Neurosurgery and Spine Associates in Charlotte, North Carolina, affiliated with Wake Forest University School of Medicine, focusing on spine surgery outcomes and biomechanics. Before joining Stanford, she served as Junior Research Faculty for neuro-oncology research at the Aga Khan University in Karachi, Pakistan.

Hani's research spans neuro-oncology, spine surgery, biomechanics, and the application of AI/ML in neurosurgical innovation. With a deep commitment to academic neurosurgery, she is currently working towards securing a neurosurgical residency.

HONORS AND AWARDS

- Socioeconomics, Health Policy & Law Paper of the Year, Congress of Neurological Surgeons (2024)
- Neurosurgery Innovation of the Year, Pakistan Society of Neurosurgeons (2024)
- Best Basic Science Poster in the Council of State Neurosurgical Societies Section Session, Congress of Neurological Surgeons (2023)
- Charlie Kuntz Scholar Award for Top Abstract, AANS Spine Summit (2023)
- Best Intern (Top 5), The Aga Khan University (2022)
- Valedictorian Intern's Class of 2022, The Aga Khan University (2022)
- Cambridge International Education Outstanding Learner's Award, University of Cambridge International Education (2019)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Licensed Physician, Pakistan Medical and Dental Council (2022 - present)
- Member, Congress of Neurological Surgeons (2022 - present)
- Core Academic Associate, Pakistan Academy of Neurological Surgery (2022 - present)

PROFESSIONAL EDUCATION

- Postdoctoral Research Fellowship, Carolina Neurosurgery and Spine Associates; Wake Forest University School of Medicine , Neurosurgery (2024)
- Internship, The Aga Khan University (2022)
- MBBS, Sindh Medical College , Bachelor of Medicine, Bachelor of Surgery (2021)

STANFORD ADVISORS

- Anand Veeravagu, Postdoctoral Faculty Sponsor

LINKS

- LinkedIn: <https://www.linkedin.com/in/ummeyhani/>
- Google Scholar Profile: <https://goto.now/K5K4U>

Research & Scholarship

LAB AFFILIATIONS

- Anand Veeravagu, Stanford Neurosurgical Artificial Intelligence and Machine Learning Laboratory (4/1/2025)

Publications

PUBLICATIONS

- **Correction: Expanding Clinician Access to High-Quality, Low-Cost Biomechanical Research: A Technical Report on the Carolina Neurosurgery and Spine Biomechanics Laboratory.** *Cureus*
Hani, U., Chewning, S., Bohl, M.
2025; 17 (9): c298
- **Publicly Available Datasets for Artificial Intelligence in Neurosurgery: A Systematic Review.** *Journal of clinical medicine*
Chan, B., Kim, B., Schonfeld, E., Nageeb, G., Pant, A., Sjöholm, A., Medikonda, R., Hani, U., Veeravagu, A.
2025; 14 (16)
- **Multilevel spinal fractures in ankylosing spondylitis: illustrative case.** *Journal of neurosurgery. Case lessons*
Abikenari, M. A., Park, L. S., Yoo, K. H., Hani, U., Jain, B., Veeravagu, A.
2025; 9 (26)
- **Cervical Disc Arthroplasty Device Failure Causing Progressive Cervical Myelopathy and Requiring Revision Cervical Corpectomy.** *Clinical spine surgery*
Parish, J., Monk, S. H., O'Brien, M., Hani, U., Coric, D., Holland, C. M.
2025; 38 (1): 18-25
- **Open Versus Percutaneous Stabilization of Thoracolumbar Fractures: A Large Retrospective Analysis of Safety and Reoperation Rates** *CUREUS JOURNAL OF MEDICAL SCIENCE*
Peters, D. R., Owen, T., Hani, U., Pfortmiller, D., Holland, C., Coric, D., Bohl, M., Kim, P. K.
2024; 16 (5): e61369
- **Patent bibliometrics in spinal deformity: the first bibliometric analysis of spinal deformity's technological literature.** *Spine deformity*
Hani, U., Chen, J. W., Holland, C., McGirt, M. J., Kim, P. K., Chewning, S., Bohl, M. A.
2024; 12 (1): 25-33
- **Effect of workers' compensation status on pain, disability, quality of life, and return to work after anterior cervical discectomy and fusion: a 1-year propensity score-matched analysis** *JOURNAL OF NEUROSURGERY-SPINE*
Hani, U., Monk, S. H., Pfortmiller, D., Stanley, G., Kim, P. K., Bohl, M. A., Holland, C. M., McGirt, M. J.
2023; 39 (6): 822-830
- **Minimally Invasive Transforaminal Lumbar Interbody Fusion in the Ambulatory Surgery Center Versus Inpatient Setting: A 1-Year Comparative Effectiveness Analysis** *NEUROSURGERY*
Monk, S. H., Hani, U., Pfortmiller, D., Adamson, T. E., Bohl, M. A., Branch, B. C., Kim, P. K., Smith, M. D., Holland, C. M., McGirt, M. J.
2023; 93 (4): 867-874
- **Anterior Cervical Discectomy and Fusion Versus Microendoscopic Posterior Cervical Foraminotomy for Unilateral Cervical Radiculopathy: A 1-Year Cost-Utility Analysis** *NEUROSURGERY*
Monk, S. H., Hani, U., Pfortmiller, D., Dyer, E., Smith, M. D., Kim, P. K., Bohl, M. A., Coric, D., Adamson, T. E., Holland, C. M., McGirt, M. J.
2023; 93 (3): 628-635

- **Effect of workers' compensation status on pain, disability, quality of life, and return to work after lumbar spine surgery: a 1-year propensity-matched analysis** *JOURNAL OF NEUROSURGERY-SPINE*
Hani, U., Monk, S. H., Pfortmiller, D., Stanley, G., Kim, P. K., Bohl, M. A., Holland, C. M., McGirt, M. J.
2023; 39 (1): 47-57
- **Expanding Clinician Access to High-Quality, Low-Cost Biomechanical Research: A Technical Report on the Carolina Neurosurgery and Spine Biomechanics Laboratory.** *Cureus*
Hani, U., Chewning, S., Bohl, M.
2023; 15 (4): e37367
- **Predictors of Survival in Patients with Metastatic Brain Tumors: Experience from a Low-to-Middle-Income Country.** *Asian journal of neurosurgery*
Anis, S. B., Hani, U., Yousaf, I.
2023; 18 (1): 139-149
- **Anterior Cervical Discectomy and Fusion in the Ambulatory Surgery Center Versus Inpatient Setting: One-Year Cost-Utility Analysis.** *Spine*
Monk, S. H., Hani, U., Pfortmiller, D., Smith, M. D., Kim, P. K., Bohl, M. A., Coric, D., Adamson, T. E., Holland, C. M., McGirt, M. J.
2023; 48 (3): 155-163
- **Review: Patent Bibliometrics in Cranial Neurosurgery: The First Bibliometric Analysis of Neurosurgery's Technological Literature** *WORLD NEUROSURGERY*
Hani, U., Mulvaney, G. G., O'Brien, M. D., Jernigan, S., Kim, P., Holland, C., McGirt, M. J., Bohl, M. A.
2023; 171: 115-123
- **A national overview of paediatric and adolescent and young adult surgical neuro-oncology in Pakistan** *JOURNAL OF THE PAKISTAN MEDICAL ASSOCIATION*
Urooj, F., Bajwa, M., Khalid, M., Shah, M., Khan, A., Hani, U., Laghari, A., Gilani, J., Jawed, N., Raghbir, M., bin Anis, S., Akhuzada, N., Siddiqi, et al
2022; 72 (11): S85-S92
- **Conducting the Pakistan brain tumour epidemiology study - a report on the methodology** *JOURNAL OF THE PAKISTAN MEDICAL ASSOCIATION*
Baig, E., Shah, M., Bajwa, M., Khalid, M., Khan, S., Hani, U., Bin Anis, S., Laghari, A., Akhuzada, N., Gilani, J., Jawed, N., Raghbir, M., Siddiqi, et al
2022; 72 (11): S12-S15
- **Comparison of Glioblastoma Outcomes in Two Geographically and Ethnically Distinct Patient Populations in Disparate Health Care Systems.** *Asian journal of neurosurgery*
Mirza, F. A., Baqai, M. W., Hani, U., Hulou, M., Shamim, M. S., Enam, S. A., Pittman, T.
2022; 17 (2): 178-188
- **Benign pituitary adenoma with multiple intracranial metastases-a case report and review of the literature** *JOURNAL OF SURGICAL CASE REPORTS*
Hani, U., Tariq, Q., Bari, A., Bin Anis, S., Diwan, A.
2022; 2022 (5): rjab382
- **Post-operative seizure control in patients with glioblastoma.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Haider, M. A., Bakhshi, S. K., Shamim, M. S.
2021; 71 (6): 1698-1700
- **Intramedullary spinal cord lesions in children.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Tebha, S. S., Bakhshi, S. K., Shamim, M. S.
2021; 71 (2(B)): 775-777
- **Role of Preoperative Embolization in Management of Central Nervous System Tumours.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Baig, A. N., Shamim, M. S., Salam, B.
2021; 71 (1(A)): 172-174
- **Extra-neural Metastatic Potential of Primary Central Nervous System Malignancies.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Bukhari, S. S., Shamim, M. S.
2020; 70 (12(B)): 2485-2488

- **Surgical outcomes of intramedullary spinal cord ependymomas.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Saeed Baqai, M. W., Shamim, M. S.
2020; 70 (10): 1864-1866
- **Value of achieving a watertight dural closure, and the use of dural sealants after supratentorial cranial surgery.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Aziz, H. F., Shamim, M. S.
2020; 70 (8): 1470-1472
- **A Review of Common Endoscopic Intracranial Approaches.** *Asian journal of neurosurgery*
Darbar, A., Mustansir, F., Hani, U., Sajid, M. I.
2020; 15 (3): 471-478
- **Permanent pre-operative cerebrospinal fluid diversion in paediatric patients with posterior fossa tumours.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Bakhshi, S. K., Shamim, M. S.
2020; 70 (6): 1101-1103
- **Steriotactic Radiosurgery for Vestibular Schwannomas.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Bakhshi, S., Shamim, M. S.
2020; 70 (5): 939-941
- **Primary Intracranial Malignant Melanoma.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Bakhshi, S. K., Shamim, M. S.
2020; 70 (3): 554-556
- **Arteriovenous malformation with associated multiple flow-related distal anterior cerebral artery aneurysms: A case report with poor outcomes.** *Surgical neurology international*
Hani, U., Bari, M. E., Bukhari, S. S.
2020; 11: 232
- **Peri-operative Lumbar Drains for Trans-Sphenoidal resection of Pituitary Adenomas** *JOURNAL OF THE PAKISTAN MEDICAL ASSOCIATION*
Hani, U., Bakhshi, S., Shamim, M.
2019; 69 (11): 1752-1754
- **Enhanced Recovery after Elective Craniotomy for Brain Tumours.** *JPMA. The Journal of the Pakistan Medical Association*
Hani, U., Bakhshi, S. K., Shamim, M. S.
2019; 69 (5): 749-751