

SAIKIRAN G. MURTHY, DO, MPH, FACS, FACOS

Director, Neurosurgical Spinal Deformity Surgery

Assistant Professor, Neurosurgery and Orthopedics

Montefiore Medical Center
Albert Einstein College of Medicine
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Bronx, NY 10467

LICENSURE AND CERTIFICATION

10/2019 – present	Board Certification, Neurological Surgery – American Osteopathic Board of Surgery (3599)
7/2019 – present	New York Medical License (300008-01)
6/2014 – 7/2021	New Jersey Medical License (25MB09497800)

EDUCATION

8/1997 – 12/2001	Bachelor of Arts, Economics New York University New York, NY
8/2003 – 5/2005	Master of Arts, Medical Sciences Boston University School of Medicine Boston, MA
8/2005 – 5/2009	Doctor of Osteopathic Medicine New York College of Osteopathic Medicine Old Westbury, NY
8/2023 – 10/2025	Executive Master of Public Health Columbia University New York, NY

POSTDOCTORAL TRAINING

7/2009 – 6/2010	Internship	New York Presbyterian Queens – Cornell University Internal Medicine
7/2010 – 6/2013	Residency	Rhode Island Hospital – Brown University Neurology
7/2013 – 6/2018	Residency	Cooperman Barnabas Medical Center – RWJ Barnabas Health – Rutgers University Neurological Surgery
4/2017 – 7/2017	Fellowship	Weill Cornell College of Medicine – Endoscopic Skull-base Neurosurgery

7/2018 – 6/2019	Fellowship	University of Virginia Medical Center – University of Virginia Complex Spinal Neurosurgery (AOSpine)
1/2023 – 12/2023	Fellowship	Institute for Healthcare Improvement (IHI) – Montefiore Health System Performance Improvement Fellowship

ACADEMIC AND HOSPITAL APPOINTMENTS

7/2009 – 6/2010	Intern in Medicine, New York Presbyterian Queens, Flushing, NY
7/2010 – 6/2012	Resident in Neurology, Rhode Island Hospital, Providence, RI
7/2012 – 6/2013	Chief Resident, Neurology, Rhode Island Hospital, Providence, RI
7/2013 – 6/2017	Resident in Neurological Surgery, Cooperman Barnabas Medical Center – Hackensack University Medical Center, NJ
4/2017 – 7/2017	Fellow, Endoscopic Skull Base Neurosurgery, New York Presbyterian Hospital, NY
6/2017 – 6/2018	Chief Resident, Neurosurgery, Cooperman Barnabas Medical Center, Livingston, NJ
6/2017 – 6/2018	Chief Resident, Neurosurgery, Hackensack University Medical Center, Hackensack, NJ
7/2018 – 6/2019	Fellow, Complex Spinal Neurosurgery and Spinal Deformity, UVA Medical Center – Charlottesville, VA
9/2019 – 7/2020	Attending Neurosurgeon, Jamaica Hospital Medical Center, Richmond Hill, NY
9/2019 – 7/2021	Attending Neurosurgeon, Saint Francis Hospital, Catholic Health System of Long Island, Roslyn, NY
9/2019 – 7/2021	Attending Neurosurgeon, Nassau University Medical Center, East Meadow, NY
10/2019 – 7/2021	Attending Neurosurgeon, Saint Catherine of Siena Hospital, Catholic Health System of Long Island, Smithtown, NY
7/2020 – 7/2021	Neurosurgery Clerkship Director, Nassau University Medical Center, East Meadow, NY
9/2020 – 7/2021	Co-director, Neurosurgical Trauma Services, Nassau University Medical Center, East Meadow, NY
10/2020 – present	Adjunct Clinical Assistant Professor, Surgery and Neurosurgery, NYIT – College of Osteopathic Medicine, Old Westbury, NY
7/2021 – present	Attending Neurosurgeon, Montefiore Medical Center, Bronx, NY
8/2021 – present	Assistant Professor, Neurosurgery and Orthopedics, Leo M. Davidoff Department of Neurosurgery, Albert Einstein College of Medicine, Bronx, NY
1/2025 – present	Director, Neurosurgical Spinal Deformity Surgery, Leo M. Davidoff Department of Neurosurgery, Albert Einstein College of Medicine, Bronx, NY
1/2025 – present	Director, Clinical Performance Improvement, Leo M. Davidoff Department of Neurosurgery, Albert Einstein College of Medicine, Bronx, NY

HOSPITAL COMMITTEES

2020 – 2021	Neurosurgical Trauma Liaison, American College of Surgeons Level 1 Trauma Center, Nassau University Medical Center, East Meadow, NY
2023 – present	Founding Member, Unified Spine Quality Council, Surgical Site Infection Task Force, Montefiore Medical Center, Bronx, NY

NATIONAL COMMITTEES

2023 – present	Continuing Education Committee, American College of Osteopathic Surgeons
2023 – present	Medical Student Engagement, Committee Chair, American College of Osteopathic Surgeons
2025 – present	Board Examiner, Neurological Surgery, Division of Examiners, American Osteopathic Board of Surgery, American Osteopathic Association
2025 – present	Board Member, Neurological Surgery, American Osteopathic Board of Surgery, American Osteopathic Association

PROFESSIONAL SOCIETIES

2021 – present	Fellow, American College of Surgeons
2022 – present	Fellow, International College of Surgeons
2024 – present	Fellow, American College of Osteopathic Surgeons
2024 – present	Fellow, Congress of Neurological Surgeons

REPORT OF SCHOLARSHIP

Publications

1. Lonner BS, Murthy SK, Boachie-Adjei O. Single-staged double anterior and posterior spinal reconstruction for rigid adult spinal deformity: a report of four cases. *Spine J.* 2005 Jan-Feb;5(1):104-8. doi: 10.1016/j.spinee.2004.04.008. PubMed PMID: 15739277.
2. Buell TJ, Chen CJ, Nguyen JH, Christiansen PA, Murthy SG, Buchholz AL, Yen CP, Shaffrey ME, Shaffrey CI, Smith JS. Surgical correction of severe adult lumbar scoliosis (major curves $\geq 75^\circ$): retrospective analysis with minimum 2-year follow-up. *J Neurosurg Spine.* 2019 Oct 1;31(4):548-561. doi: 10.3171/2019.3.SPINE1966. Print 2019 Oct 1. PubMed PMID: 31226681.
3. De la Garza Ramos R, Naidu I, Choi JH, Pennington Z, Goodwin CR, Sciubba DM, Shin JH, Yanamadala V, Murthy S, Gelfand Y, Yassari R. Comparison of three predictive scoring systems for morbidity in oncological spine surgery. *J Clin Neurosci.* 2021 Dec;94:13-17. doi: 10.1016/j.jocn.2021.09.031. Epub 2021 Oct 4. PubMed PMID: 34863427.
4. Miller A, Griep DW, Miller C, Hamad M, De la Garza Ramos R, Murthy SG. The effectiveness of reducing endotracheal cuff pressure after retractor placement to decrease postoperative laryngeal dysfunction in anterior cervical surgery: a meta-

analysis. *J Neurosurg Spine*. 2022 Jul 1;37(1):21-30. doi: 10.3171/2021.11.SPINE211299. Print 2022 Jul 1. Review. PubMed PMID: 35171823.

5. Griep DW, De la Garza Ramos R, Lee J, Miller A, Prasad M, Gelfand Y, Cardozo-Stolberg S, Murthy SG. Beach Breaking Waves and Related Cervical Spine Injuries: A Level One Trauma Center Experience and Systematic Review. *World Neurosurg*. 2022 Apr;160:e471-e480. doi: 10.1016/j.wneu.2022.01.055. Epub 2022 Jan 21. PubMed PMID: 35074543.
6. De la Garza Ramos R, Hamad MK, Ryvlin J, Krol O, Passias PG, Fourman MS, Shin JH, Yanamadala V, Gelfand Y, Murthy S, Yassari R. An Artificial Neural Network Model for the Prediction of Perioperative Blood Transfusion in Adult Spinal Deformity Surgery. *J Clin Med*. 2022 Jul 29;11(15). doi: 10.3390/jcm11154436. PubMed PMID: 35956053; PubMed Central PMCID: PMC9369471.
7. Hamad MK, Ryvlin J, Langro J, Obeidallah AS, Marin J, De La Garza Ramos R, Murthy S, Lee SK, Yassari R. Cement Augmentation of Two-Level Lumbar Corpectomy Cage After Malposition: A Novel Salvage Procedure Technical Note. *Cureus*. 2022 Sep;14(9):e29074. doi: 10.7759/cureus.29074. eCollection 2022 Sep. PubMed PMID: 36258926; PubMed Central PMCID: PMC9558766.
8. De la Garza Ramos R, Javed K, Ryvlin J, Gelfand Y, Murthy S, Yassari R. Are There Racial or Socioeconomic Disparities in Ambulatory Outcome or Survival After Oncologic Spine Surgery for Metastatic Cancer? Results From a Medically Underserved Center. *Clin Orthop Relat Res*. 2023 Feb 1;481(2):301-307. doi: 10.1097/CORR.0000000000002445. Epub 2022 Oct 5. PubMed PMID: 36198109; PubMed Central PMCID: PMC9831169.
9. De la Garza Ramos R, Ryvlin J, Hamad MK, Wang B, Gelfand Y, Murthy S, Yassari R. Performance assessment and external validation of specific thresholds of total psoas muscle cross-sectional area as predictors of mortality in oncologic spine surgery for spinal metastases. *Eur Spine J*. 2023 Mar;32(3):1003-1009. doi: 10.1007/s00586-022-07517-z. Epub 2023 Jan 11. PubMed PMID: 36627502
10. Ryvlin J, Hamad MK, Langro J, Wang B, Patel P, De la Garza Ramos R, Murthy SG, Gelfand Y, Yassari R. Evaluation of lymphopenia as a predictor of postoperative mortality and major complications in patients undergoing surgery for metastatic spine tumors. *J Neurosurg Spine*. 2023 Mar 10;:1-9. doi: 10.3171/2023.1.SPINE221021. [Epub ahead of print] PubMed PMID: 36905657.
11. Ryvlin J, Hamad MK, Wang B, Xavier J, De la Garza Ramos R, Murthy SG, Gelfand Y, Yassari R. Performance Assessment of the American College of Surgeons Risk Calculator in Metastatic Spinal Tumor Surgery. *Spine (Phila Pa 1976)*. 2023 Jun 15;48(12):825-831. doi: 10.1097/BRS.0000000000004644. Epub 2023 Mar 23. PubMed PMID: 36972073.
12. De la Garza Ramos R, Ryvlin J, Hamad MK, Fourman MS, Gelfand Y, Murthy SG, Shin JH, Yassari R. Predictive value of six nutrition biomarkers in oncological spine surgery: a performance assessment for prediction of mortality and wound infection. *J Neurosurg Spine*. 2023 Nov 1;39(5):664-670. doi: 10.3171/2023.5.SPINE23347. Print 2023 Nov 1. PubMed PMID: 37542445.
13. De la Garza Ramos R, Ryvlin J, Hamad MK, Fourman MS, Eleswarapu A, Gelfand Y, Murthy SG, Shin JH, Yassari R. The prognostic nutritional index (PNI) is independently associated with 90-day and 12-month mortality after metastatic spinal tumor surgery. *Eur Spine J*. 2023 Dec;32(12):4328-4334. doi: 10.1007/s00586-023-07930-y. Epub 2023 Sep 12. PubMed PMID: 37700182.
14. Ryvlin J, Javed K, la Garza Ramos R, Hamad M, Essibayi MA, Gelfand Y, Murthy S, Yassari R. Is perioperative blood transfusion associated with postoperative thromboembolism or infection after metastatic spinal tumor surgery?. *Clin Neurol Neurosurg*. 2023 Dec;235:108052. doi: 10.1016/j.clineuro.2023.108052. Epub 2023 Nov 14. PubMed PMID: 37980825.
15. Ryvlin J, Kim SW, Hamad MK, Fourman MS, Eleswarapu A, Murthy SG, Gelfand Y, De la Garza Ramos R, Yassari R. The prognostic role of neutrophil-to-lymphocyte ratio, platelet-to-lymphocyte ratio, and systemic immune-inflammation index on short- and long-term outcome following surgery for spinal metastases. *J Neurosurg Spine*. 2024 Apr 1;40(4):475-484. doi: 10.3171/2023.10.SPINE23851. Print 2024 Apr 1. PubMed PMID: 38157531.
16. Ryvlin J, Kim SW, De la Garza Ramos R, Hamad M, Stock A, Owolo E, Fourman MS, Eleswarapu A, Gelfand Y, Murthy S, Yassari R. External Validation of an Online Wound Infection and Wound Reoperation Risk Calculator After Metastatic

Spinal Tumor Surgery. *World Neurosurg.* 2024 May;185:e351-e356. doi: 10.1016/j.wneu.2024.02.005. Epub 2024 Feb 9. PubMed PMID: 38342175.

17. Mani K, Kleinbart E, Goldman SN, Golding R, Gelfand Y, Murthy S, Eleswarapu A, Yassari R, Fourman MS, Krystal J. Projections of Single-level and Multilevel Spinal Instrumentation Procedure Volume and Associated Costs for Medicare Patients to 2050. *J Am Acad Orthop Surg Glob Res Rev.* 2024 May 1;8(5). doi: 10.5435/JAAOSGlobal-D-24-00053. eCollection 2024 May 1. PubMed PMID: 38743853; PubMed Central PMCID: PMC11095963.
18. De la Garza Ramos R, Ryvlin J, Bangash AH, Hamad MK, Fourman MS, Shin JH, Gelfand Y, Murthy S, Yassari R. Predictors of Clavien-Dindo Grade III-IV or Grade V Complications after Metastatic Spinal Tumor Surgery: An Analysis of Sociodemographic, Socioeconomic, Clinical, Oncologic, and Operative Parameters. *Cancers (Basel).* 2024 Aug 1;16(15). doi: 10.3390/cancers16152741. PubMed PMID: 39123469; PubMed Central PMCID: PMC11311255.
19. Fluss R, Lo Bu R, De la Garza Ramos R, Murthy SG, Yassari R, Gelfand Y. Nonquantitative CT scan Hounsfield unit as a determinant of cervical spine bone density. *J Neurosurg Spine.* 2024 Dec 1;41(6):803-812. doi: 10.3171/2024.5.SPINE24249. Print 2024 Dec 1. PubMed PMID: 39151197.
20. Golding R, Abuqubo R, Pansa CJ, Bhatta M, Shankar V, Mani K, Kleinbart E, Gelfand Y, Murthy S, De la Garza Ramos R, Krystal J, Eleswarapu A, Yassari R, Mostafa E, Fourman MS, Schlumprecht A. Immunologic and Targeted Molecular Therapies for Chordomas: A Narrative Review. *J Clin Med.* 2024 Sep 24;13(19). doi: 10.3390/jcm13195679. Review. PubMed PMID: 39407739; PubMed Central PMCID: PMC11476405.
21. Ryvlin J, Brook A, Dziesinski L, Granados N, Fluss R, Hamad MK, Fourman MS, Murthy SG, Gelfand Y, Yassari R, De la Garza Ramos R. Racial Disparities in Patients with Metastatic Tumors of the Spine: A Systematic Review. *World Neurosurg.* 2024 Dec;192:e187-e197. doi: 10.1016/j.wneu.2024.09.064. Epub 2024 Oct 4. PubMed PMID: 39299439.
22. Lo Bu R, Fluss R, Srivastava Y, De la Garza Ramos R, Murthy SG, Yassari R, Gelfand Y. Hounsfield Unit Utilization in Cervical Spine for Bone Quality Assessment: A Scoping Review. *J Clin Med.* 2025 Jan 11;14(2). doi: 10.3390/jcm14020442. Review. PubMed PMID: 39860447; PubMed Central PMCID: PMC11766049.
23. Bangash AH, Ryvlin J, Chakravarthy V, Akinduro OO, Zadnik Sullivan PL, Niu T, Galgano MA, Shin JH, Gokaslan ZL, Fourman MS, Gelfand Y, Murthy SG, Yassari R, De la Garza Ramos R. Unmasking Racial, Ethnic, and Socioeconomic Disparities in United States Chordoma Clinical Trials: Systematic Review. *Cancers (Basel).* 2025 Jan 12;17(2). doi: 10.3390/cancers17020225. Review. PubMed PMID: 39858008; PubMed Central PMCID: PMC11763698.
24. Mani KA, Goldman SN, Akioyamen N, Kleinbart E, Gelfand Y, Murthy S, Krystal J, Eleswarapu A, Yassari R, Fourman MS. Projections of single-level indirect lumbar interbody fusion volume and associated costs for Medicare patients to 2050. *N Am Spine Soc J.* 2025 Jun;22:100597. doi: 10.1016/j.xnsj.2025.100597. eCollection 2025 Jun. PubMed PMID: 40236876; PubMed Central PMCID: PMC11999186.
25. Bangash AH, Fluss R, Eleswarapu AS, Fourman MS, Gelfand Y, Murthy SG, Yassari R, De la Garza Ramos R. Racial, ethnic, and socioeconomic disparities in clinical trial reporting for metastatic spine tumors: An exploration of North American studies. *Neurosurg Rev.* 2025 Feb 19;48(1):247. doi: 10.1007/s10143-025-03343-1. Review. PubMed PMID: 39969615; PubMed Central PMCID: PMC11839828.
26. Ryvlin J, Seneviratne N, Bangash AH, Goodwin CR, Weber MH, Charest-Morin R, Shin JH, Versteeg AL, Fourman MS, Murthy SG, Gelfand Y, Yassari R, De la Garza Ramos R. The utilization of hypoalbuminemia as a prognostic metric in patients with spinal metastases: A scoping review. *Brain Spine.* 2025;5:104223. doi: 10.1016/j.bas.2025.104223. eCollection 2025. Review. PubMed PMID: 40103850; PubMed Central PMCID: PMC11914803.
27. Bangash AH, Ryvlin J, Fourman MS, Gelfand Y, Murthy SG, Yassari R, De la Garza Ramos R. Safety and efficacy of tranexamic acid in oncologic surgery for spinal metastases: A systematic review. *N Am Spine Soc J.* 2025 Jun;22:100613. doi: 10.1016/j.xnsj.2025.100613. eCollection 2025 Jun. Review. PubMed PMID: 40492236; PubMed Central PMCID: PMC12148372.
28. Bangash AH, Kirnaz S, Fluss R, Cao V, Alexandrov A, Belman L, Gelfand Y, Murthy SG, Yassari R, De la Garza Ramos R. Short-Term Outcomes in Planned Versus Unplanned Surgery for Spinal Metastases. *Cancers (Basel).* 2025 Jul 20;17(14).

doi: 10.3390/cancers17142403. PubMed PMID: 40723285; PubMed Central PMCID: PMC12293508.

29. Fluss R, Karandish A, Della Croce R, Kirnaz S, Ruiz V, De La Garza Ramos R, Murthy SG, Yassari R, Gelfand Y. Predictors of Implant Subsidence and Its Impact on Cervical Alignment Following Anterior Cervical Discectomy and Fusion: A Retrospective Study. *J Clin Med*. 2025 Aug 10;14(16). doi: 10.3390/jcm14165660. PubMed PMID: 40869486; PubMed Central PMCID: PMC12387074.
30. Bangash AH, Fluss R, Kirnaz S, Nosrati JD, Rhieu BH, Tang J, Garg MK, Murthy SG, Gelfand Y, Yassari R, De la Garza Ramos R. A systematic review on frailty indices utilized in oncologic surgery and radiotherapy for metastatic spine disease: A critical appraisal of components and performance. *N Am Spine Soc J*. 2025 Dec;24:100794. doi: 10.1016/j.xnsj.2025.100794. eCollection 2025 Dec. Review. PubMed PMID: 41140524; PubMed Central PMCID: PMC12547925.
31. Bangash AH, Cao V, Fluss R, Kirnaz S, Murthy SG, Gelfand Y, Yassari R, De la Garza Ramos R. Is preoperative albumin level associated with wound complications after oncologic surgery for spinal metastases? An ACS-NSQIP analysis. *J Orthop Sci*. 2026 Mar;31(2):305-312. doi: 10.1016/j.jos.2025.08.010. Epub 2025 Sep 13. PubMed PMID: 40946048.
32. Bangash AH, Mani K, Goldman SN, Fluss R, Kirnaz S, Eleswarapu AS, Fourman MS, Gelfand Y, Murthy SG, Yassari R, De la Garza Ramos R. Predicting Surgical Site Infection after Lumbar Laminectomy and Discectomy: A Cutting-edge Algorithmic Approach by Incorporating Ensembled Stacking into the Current State-of-the-art for Automated Machine Learning. *Neurosurg Rev*. 2025 Sep 18;48(1):653. doi: 10.1007/s10143-025-03766-w. PubMed PMID: 40965694; PubMed Central PMCID: PMC12446113.
33. Hsu J, Dahodwala TM, Akioyamen NO, Mostafa E, AbuQubo RZ, Yang XA, Singh PK, Berman DC, De la Garza Ramos R, Gelfand Y, Murthy SG, Krystal JD, Eleswarapu AS, Fourman MS. Current Applications and Future Directions of Technologies Used in Adult Deformity Surgery for Personalized Alignment: A Narrative Review. *J Pers Med*. 2025 Oct 3;15(10). doi: 10.3390/jpm15100480. Review. PubMed PMID: 41149842; PubMed Central PMCID: PMC12565587.
34. Nájera Samaniego E, Fluss R, Bangash AH, Kirnaz S, Murthy S, Gelfand Y, Yassari R, De La Garza Ramos R. Serum Albumin Level as a Predictor of Failure to Rescue in Patients Undergoing Surgery for Spinal Metastases. *Cancers (Basel)*. 2025 Oct 29;17(21). doi: 10.3390/cancers17213477. PubMed PMID: 41228270; PubMed Central PMCID: PMC12609069.
35. De La Garza Ramos R, Bangash AH, Kirnaz S, Fluss R, Cao V, Alexandrov A, Belman L, Murthy SG, Gelfand Y, Yassari R. Evaluating the Real-World Predictive Utility of Karnofsky and ECOG Performance Status for 90-Day Survival After Oncologic Surgery for Metastatic Spinal Tumors. *Cancers (Basel)*. 2025 Nov 12;17(22). doi: 10.3390/cancers17223629. PubMed PMID: 41300996; PubMed Central PMCID: PMC12651469.
36. Fluss R, Lo Bu R, Karandish A, Kirnaz S, De la Garza Ramos R, Murthy SG, Yassari R, Gelfand Y. Evaluation of Bone Mineral Density: Correlating MRI Cervical Vertebral Bone Quality, CT Hounsfield Units, and DEXA T-Scores. *Med Sci (Basel)*. 2025 Dec 4;13(4). doi: 10.3390/medsci13040304. PubMed PMID: 41440536; PubMed Central PMCID: PMC12734921.
37. Bangash AH, Eleswarapu AS, Fourman MS, Gelfand Y, Murthy SG, Gomez JA, Goodwin CR, Passias PG, Yassari R, De la Garza Ramos R. Critical Assessment of Evidence Quality of Meta-Analyses Comparing Sacral 2 Alar-Iliac Fixation with Iliac Screws for Adult Spinal Deformity: An Umbrella Review with Emphasis on Methodological Limitations. *J Clin Med*. 2026 Jan 16;15(2). doi: 10.3390/jcm15020753. Review. PubMed PMID: 41598689; PubMed Central PMCID: PMC12842343.

Book Chapters

1. Buell, T. J., Christiansen, P. A., Nguyen, J. H., Murthy, S., Bok, A., Yen, C. P., Shaffrey, C. I., Smith, J. S. (2022). Chapter 25: Positioning for Spinal Surgery. *Youmans and Winn Neurological Surgery*, 8e

Posters

1. Koziol J., Murthy S., Choice of Anterior vs. Posterior Approach in Multilevel Cervical Myeloradiculopathy. Electronic Poster. American Association of Neurological Surgeons, Annual Scientific Meeting, 2016.
2. Murthy S., Darwal M., Koziol J., Hubschmann O., Arch Laminoplasty and Lateral Mass Screws for Cervical Myeloradiculopathy with Reversal of Cervical Lordosis. Electronic Poster. American Association of Neurological Surgeons, Annual Scientific Meeting, 2018.
3. Murthy S., Darwal M., Koziol J., Hubschmann O., Minimally Invasive Decompressive Laminectomy, TLIF and Pedicle Screw Fixation Using Bilateral Paraspinal Muscle Splitting Technique. Electronic Poster. American Association Neurological Surgeons, Annual Scientific Meeting, 2018.
4. Buell, T. J., Chen, C.-J., Nguyen, J. H., Christiansen, P. A., Murthy, S. G., Buchholz, A. L., Yen, C. P., Shaffrey, M. E., Shaffrey, C. I., Smith, J. S. Surgical correction of severe adult lumbar scoliosis (major curves $\geq 75^\circ$): retrospective analysis with minimum 2-year follow-up. AOSpine Annual Fellows Forum, Banff, Alberta, Canada, 2019.
5. Griep D. W., Murthy S. G. "The Perils of Shallow Water Wave Diving: A COVID-19 Summer Experience" American Association of Neurological Surgeons, Annual Scientific Meeting, Orlando, 2021.
6. Griep D. W., Sajan A., Murthy S. G., Marquez S, DiRaimo R. "Surgical Anatomy of the Carotid Bifurcation: A New Role in Carotid Procedures" American Association of Neurological Surgeons, Annual Meeting, Orlando, 2021.
7. Griep D. W., Moawad C. M., Lee J., Davati C., Miller A., Fiani B., Murthy S. G. "Weight-Bearing Magnetic Resonance Imaging as a Diagnostic Tool That Generates Biomechanical Changes in Spine Anatomy: A Systematic Review" American Association of Neurological Surgeons, Annual Scientific Meeting, Orlando, 2021.
8. Murthy S, Yassari R. Revolutionizing Surgical Residency Evaluation: A Process Mapping Approach. Congress of Neurological Surgeons Annual Meeting, Houston Texas, USA. Sept 28 – Oct 2, 2024
9. Kirnaz S, Bangash AH, Fluss R, Gelfand Y, Murthy S, Yassari R, De la Garza Ramos R. Planned versus Emergent Surgery for Spinal Metastases: Short-Term Outcomes and Implications. *AANS/CNS Spine Summit 2026*, Phoenix, Arizona, USA. Feb 26 – Mar 1, 2026
10. De la Garza Ramos R, Bangash AH, Kirnaz S, Fluss R, Cao V, Alexandrov A, Belman L, Murthy SG, Gelfand Y, Yassari R. Evaluating the Real-World Predictive Utility of Karnofsky and ECOG Performance Status for 90-Day Survival After Oncologic Surgery for Metastatic Spinal Tumors. *AANS/CNS Spine Summit 2026*, Phoenix, Arizona, USA. Feb 26 – Mar 1, 2026

Oral Poster Presentations

1. Buell, T. J., Chen, C.-J., Nguyen, J. H., Christiansen, P. A., Murthy, S. G., Buchholz, A. L., Yen, C. P., Shaffrey, M. E., Shaffrey, C. I., Smith, J. S. Surgical correction of severe adult lumbar scoliosis (major curves $\geq 75^\circ$): retrospective analysis with minimum 2-year follow-up. AOSpine Annual Fellows Forum, Banff, Alberta, Canada, 2019.
2. De la Garza Ramos R, Bangash AH, Kirnaz S, Fluss R, Cao V, Alexandrov A, Belman L, Murthy SG, Gelfand Y, Yassari R. Evaluating the Real-World Predictive Utility of Karnofsky and ECOG Performance Status for 90-Day Survival After Oncologic Surgery for Metastatic Spinal Tumors. *AANS/CNS Spine Summit 2026*, Phoenix, Arizona, USA. Feb 26 – Mar 1, 2026

Invited Speakerships – Local & Regional Conferences

2011	Corticosteroids and Immunoglobulin in Eastern Equine Encephalitis, Neurology Grand Rounds, Warren Alpert Medical School, Brown University
2011	Acquired Sensory Ganglionopathies, Neurology Grand Rounds, Warren Alpert Medical School, Brown University
2011	A Case of Fulminant Meningoencephalitis in a Patient with Neuromyelitis Optica, Neurology Grand Rounds, Warren Alpert Medical School, Brown University
2011	Delayed Post-Traumatic Hemorrhage – “Spat Apoplexy”, Neurology Grand Rounds, Warren Alpert Medical School, Brown University
2012	Functional Hemispherectomy, Neurosurgery Grand Rounds, Warren Alpert Medical School, Brown University
2013	Pre-pontine Nucleus Stimulation in Atypical Parkinsonism, Neurology Grand Rounds, Warren Alpert Medical School, Brown University
2013	Aphasia and Apraxia, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2014	Selected Extrinsic Tumors, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2014	Comprehensive Review of Epilepsy Surgery, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2014	Management of Osteodiscitis and Spinal Epidural Abscess, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2015	Selected Pediatric Brainstem Gliomas, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2015	Selected Intramedullary Spinal Tumors, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2016	Management of Elevated Intracranial Pressure Following Blunt Head Trauma, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2016	Correction of Degenerative Spinal Deformity, Neurosurgery Grand Rounds, Hackensack University Medical Center
2017	Management of Open Spinal Dysraphism, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2017	Tailored Approaches to the Cervical Spine, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2017	Intradural Extramedullary Tumors, Neurosurgery Grand Rounds, Saint Barnabas Medical Center
2021	Blunt and Penetrating Head Injury, A Level 1 Trauma Center Experience, Surgery Grand Rounds, Nassau University Medical Center

Invited Speakerships – National Conferences

2022	Better, Stronger, Faster: Intraoperative Surgical Process Mapping, Plenary Session, International College of Surgeons Annual Conference, Providence, RI
2022	Intraoperative Surgical Process Mapping, Plenary Session, American College of Osteopathic Surgeons, Annual Clinical Assembly, Austin, TX
2023	Surgical Performance Improvement and Intraoperative Surgical Process Mapping, Plenary Session, American College of Academic International Medicine, New Brunswick, NJ
2023	Intraoperative Surgical Process Mapping – Where We Are and Where We Are Headed, Plenary Session, American College of Osteopathic Surgeons, Annual Clinical Assembly, Chicago, IL
2024	Thoracolumbar Trauma, To Fuse or Not to Fuse, American College of Surgeons, Point – Counterpoint, Plenary Session, Baltimore, MD
2024	Neurologically Intact Burst Fractures: Current Controversies and Management Strategies, American College of Osteopathic Surgeons, Annual Clinical Assembly, Orlando, FL
2025	Adult Spinal Deformity Surgery: Through the Lens of Advocates and Skeptics, American College of Osteopathic Surgeons, Annual Clinical Assembly, Salt Lake City, UT

Faculty & Teaching Engagements

2011 – 2013	Instructor, Brain Sciences, Warren Alpert Medical School, Brown University
2018	Course Faculty, Instrumentation of the Craniocervical Junction, Rutgers University, Cooperman Barnabas Medical Center, Stryker Spine
2020 – 2021	Neurosurgery Clerkship Director, Nassau University Medical Center
2020 – present	Adjunct Clinical Assistant Professor, Surgery and Neurosurgery, NYIT – College of Osteopathic Medicine
2021 – present	Assistant Professor, Department of Neurosurgery, Albert Einstein College of Medicine

Honors

2005	Honors Awarded Master's Thesis: Solutions for Complex Diagnostic Quandaries in Beta-Thalassemia Boston University School of Medicine, Boston, MA
2018	Robert S. Dorian Memorial Award for Outstanding Teaching by a Resident, Cooperman

Barnabas Medical Center, Livingston, NJ

- 2018 David and Lya Neumann Award for Outstanding Chief Resident, Cooperman Barnabas Medical Center, Livingston, NJ
- 2022 Editor's Choice Award, Corresponding Author, Article: Beach Breaking Waves and Related Cervical Spine Injuries: A Level One Trauma Center Experience and Systematic Review. World Neurosurgery, Vol 160, pages e471-e480, April 1, 2022
- 2024 Best Abstract/Poster Award. Revolutionizing Surgical Residency Evaluation: A Process Mapping Approach. Congress of Neurological Surgeons Annual Meeting, Houston, Texas, USA. Sept 28 – Oct 2, 2024