

Stanford



Marc Ghanem

Postdoctoral Scholar, Anesthesiology, Perioperative and Pain Medicine

Bio

BIO

Marc graduated with a Doctor of Medicine degree from the Lebanese American University, where he consistently strived to bridge the gap between healthcare and data science, focusing on the intersection of artificial intelligence, machine learning, and medical science to develop solutions for optimizing patient care.

Currently, Marc is a Postdoctoral Research Scholar at Stanford University. His work revolves around the application of machine learning to analyze biological and clinical data in a translational setting. Prior to that, Marc was a Research Scholar Collaborator at the Mayo Clinic's Neuro-Informatics Lab. There, he made significant contributions by working on outcome prediction using machine learning and deep learning models trained on national datasets.

HONORS AND AWARDS

- Best Capstone Project, Lebanese American University (05/2019)
- Mayo Clinic Neuro-Informatics Research Collaboration Award, Mayo Clinic Neuro-Informatics Lab (07/2021)
- Excellence in Innovation Award, Lebanese American University (05/2023)
- Outstanding Researcher Award, Lebanese American University (05/2023)

STANFORD ADVISORS

- Nima Aghaeepour, Postdoctoral Faculty Sponsor

LINKS

- Twitter: <https://twitter.com/marcghanem>
- LinkedIn: <https://www.linkedin.com/in/marcghanem777/>
- ResearchGate: <https://www.researchgate.net/profile/Marc-Ghanem-2>
- Google Scholar: <https://scholar.google.com/citations?user=VyR7mXEAAAAJ&hl=en>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Data-driven healthcare and AI research in a translational setting.

Publications

PUBLICATIONS

- **What Factors Predict the Development of Neurologic Deficits Following Resection of Intramedullary Spinal Cord Tumors: A Multi-Center Study.** *World neurosurgery*
Akinduro, O. O., Ghaith, A. K., Loizos, M., Lopez, A. O., Goyal, A., de Macedo Filho, L., Ghanem, M., Jarrah, R., Moniz Garcia, D. P., Abode-Iyamah, K., Kalani, M. A., Chen, S. G., Krauss, et al
2023
- **Immunohistochemical markers predicting recurrence following resection and radiotherapy in chordoma patients: insights from a multicenter study.** *Journal of neurosurgery*
Bon Nieves, A., Ghaith, A. K., El-Hajj, V. G., Akinduro, O. O., Ibrahim, S., Ghanem, M., Goyal, A., Otamendi-Lopez, A., Nathani, K. R., Choby, G., Laack, N. N., Link, M. J., Peris Celda, et al
2023: 1-7
- **Safety and efficacy of the pipeline embolization device for treatment of small vs. large aneurysms: a systematic review and meta-analysis.** *Neurosurgical review*
Ghaith, A. K., Greco, E., Rios-Zermeno, J., El-Hajj, V. G., Perez-Vega, C., Ghanem, M., Kashyap, S., Fox, W. C., Huynh, T. J., Sandhu, S. S., Ohlsson, M., Elmi-Terander, A., Bendok, et al
2023; 46 (1): 284
- **Surgical management of malignant melanotic nerve sheath tumors: an institutional experience and systematic review of the literature.** *Journal of neurosurgery. Spine*
Ghaith, A. K., Johnson, S. E., El-Hajj, V. G., Akinduro, O. O., Ghanem, M., De Biase, G., Michaelides, L., Bon Nieves, A., Marsh, W. R., Currier, B. L., Atkinson, J. L., Spinner, R. J., Bydon, et al
2023: 1-10
- **General Versus Nongeneral Anesthesia for Spinal Surgery: A Comparative National Analysis of Reimbursement Trends Over 10 Years.** *Neurosurgery*
Ghaith, A. K., Akinduro, O. O., El-Hajj, V. G., De Biase, G., Ghanem, M., Rajjoub, R., Faisal, U. H., Saad, H., Abdulrahim, M., Bon Nieves, A., Chen, S. G., Pirris, S. M., Bydon, et al
2023
- **The Rate and Predictors of 30-Day Readmission in Patients Treated for Unruptured Cerebral Aneurysms: A Large Single-Center Study.** *Neurosurgery*
El Naamani, K., Hunt, A., Jain, P., Lawall, C. L., Yudkoff, C. J., El Fadel, O., Ghanem, M., Mastorakos, P., Momin, A. A., Alhussein, A., Alhussein, R., Atallah, E., Abbas, et al
2023
- **Transverse Venous Stenting for the Treatment of Idiopathic Intracranial Hypertension With a Pressure Gradient of 70 mm Hg: A Technical Note and Systematic Review.** *Operative neurosurgery (Hagerstown, Md.)*
Ghanem, M., El Naamani, K., Rawad, A., Tjournakaris, S. I., Gooch, M. R., Rosenwasser, R. H., Jabbour, P. M.
2023
- **Predictors of Transfemoral Access Site Complications in Neuroendovascular Procedures: A large Single-Center Cohort Study.** *Clinical neurology and neurosurgery*
El Naamani, K., Khanna, O., Mastorakos, P., Momin, A. A., Yudkoff, C. J., Jain, P., Hunt, A., Pedapati, V., Syal, A., Lawall, C. L., Carey, P. M., El Fadel, O., Zakar, et al
2023; 233: 107916
- **Effect of race, sex, and socioeconomic factors on overall survival following the resection of intramedullary spinal cord tumors.** *Journal of neuro-oncology*
Akinduro, O. O., Ghaith, A. K., El-Hajj, V. G., Ghanem, M., Soltan, F., Nieves, A. B., Abode-Iyamah, K., Shin, J. H., Gokaslan, Z. L., Quinones-Hinojosa, A., Bydon, M.
2023
- **Resuming Anticoagulants in Patients With Intracranial Hemorrhage: A Meta-Analysis and Literature Review.** *Neurosurgery*
El Naamani, K., Abbas, R., Ghanem, M., Mounzer, M., Tjournakaris, S. I., Gooch, M. R., Rosenwasser, R. H., Jabbour, P. M.
2023
- **Deep Learning Approaches for Glioblastoma Prognosis in Resource-Limited Settings: A Study Using Basic Patient Demographic, Clinical, and Surgical Inputs.** *World neurosurgery*
Ghanem, M., Ghaith, A. K., Zamanian, C., Bon-Nieves, A., Bhandarkar, A., Bydon, M., Quiñones-Hinojosa, A.

2023; 175: e1089-e1109

- **Using machine learning to predict 30-day readmission and reoperation following resection of supratentorial high-grade gliomas: an ACS NSQIP study involving 9418 patients.** *Neurosurgical focus*

Ghaith, A. K., Ghanem, M., Zamanian, C., Bon-Nieves, A. A., Bhandarkar, A., Nathani, K., Bydon, M., Quinones-Hinojosa, A.

2023; 54 (6): E12

- **Transradial versus Transfemoral Approaches in Diagnostic and Therapeutic Neuroendovascular Interventions: A Meta-Analysis of Current Literature** *WORLD NEUROSURGERY*

Ghaith, A., El Naamani, K., Mualem, W., Ghanem, M., Rajjoub, R., Sweid, A., Yolcu, Y. U., Onyedimma, C., Tjounmakaris, S., Bydon, M., Jabbour, P. M.

2022; 164: E694-E705