



Gustavo Balanza Villegas

Instructor, Anesthesiology, Perioperative and Pain Medicine

Bio

ACADEMIC APPOINTMENTS

- Instructor, Anesthesiology, Perioperative and Pain Medicine

PROGRAM AFFILIATIONS

- SPARK at Stanford

PROFESSIONAL EDUCATION

- Perfusionist, Universidad Católica de Chile , Cardiovascular Perfusion (2019)
- MD, Universidad Mayor de San Andres, La Paz, Bolivia , Medicine (2016)

Publications

PUBLICATIONS

- **Intraoperative Electroencephalogram Alpha Power Associated with Mortality: Reply.** *Anesthesiology*
Mather, R. V., Nipp, R. D., Balanza, G., Stone, T. A., Gutierrez, R., Raje, P., Higuchi, M., Liu, R., Mercado, L. A., Bittner, E. A., Kunitake, H., Purdon, P. L.
2025; 143 (5): 1425-1427
- **High Altitude May Protect Against the Early Development of Irreversible Pulmonary Hypertension in Patients With Congenital Heart Disease** *PULMONARY CIRCULATION*
von Alvensleben, I., Graham, B. B., Balanza, G. A., Brockmann, C., Perez, E. C., Vicente, X. Y., Arteaga, C., Scherer, C., Freudenthal, F. P., Tuder, R. M., Heath, A.
2025; 15 (1): e70049
- **Intraoperative Frontal EEG Alpha Power is Associated with Post-Operative Mortality and Other Adverse Outcomes.** *Anesthesiology*
Mather, R. V., Nipp, R. D., Balanza, G., Stone, T. A., Gutierrez, R., Raje, P., Higuchi, M., Liu, R., Santa Cruz Mercado, L. A., Bittner, E. A., Kunitake, H., Purdon, P. L.
2024
- **Development and prospective validation of postoperative pain prediction from preoperative EHR data using attention-based set embeddings.** *NPJ digital medicine*
Liu, R., Gutiérrez, R., Mather, R. V., Stone, T. A., Santa Cruz Mercado, L. A., Bharadwaj, K., Johnson, J., Das, P., Balanza, G., Uwanaka, E., Sydoski, J., Chen, A., Hagood, et al
2023; 6 (1): 209
- **Differential cortical network engagement during states of un/consciousness in humans.** *Neuron*
Zelmann, R., Paulk, A. C., Tian, F., Balanza Villegas, G. A., Dezha Peralta, J., Crocker, B., Cosgrove, G. R., Richardson, R. M., Williams, Z. M., Dougherty, D. D., Purdon, P. L., Cash, S. S.
2023

- **Association of Intraoperative Opioid Administration With Postoperative Pain and Opioid Use.** *JAMA surgery*
Santa Cruz Mercado, L. A., Liu, R., Bharadwaj, K. M., Johnson, J. J., Gutierrez, R., Das, P., Balanza, G., Deng, H., Pandit, A., Stone, T. A., Macdonald, T., Horgan, C., Tou, et al
2023; 158 (8): 854-864
- **A Narrative Review Illustrating the Clinical Utility of Electroencephalogram-Guided Anesthesia Care in Children** *ANESTHESIA AND ANALGESIA*
Bong, C., Balanza, G. A. A., Khoo, C., Tan, J., Desel, T., Purdon, P.
2023; 137 (1): 108-123
- **Association of Intraoperative Opioid Administration With Postoperative Pain and Opioid Use** *JAMA SURGERY*
Mercado, L. A., Liu, R., Bharadwaj, K. M., Johnson, J. J., Gutierrez, R., Das, P., Balanza, G., Deng, H., Pandit, A., Stone, T. A. D., Macdonald, T., Horgan, C., Tou, et al
2023
- **Characterizing brain dynamics during ketamine-induced dissociation and subsequent interactions with propofol using human intracranial neurophysiology.** *Nature communications*
Tian, F., Lewis, L. D., Zhou, D. W., Balanza, G. A., Paulk, A. C., Zemann, R., Peled, N., Soper, D., Santa Cruz Mercado, L. A., Peterfreund, R. A., Aglio, L. S., Eskandar, E. N., Cosgrove, et al
2023; 14 (1): 1748
- **Sevoflurane requirements during electroencephalogram (EEG)-guided vs standard anesthesia Care in Children: A randomized controlled trial.** *Journal of clinical anesthesia*
Long, M. H., Lim, E. H., Balanza, G. A., Allen, J. C., Purdon, P. L., Bong, C. L.
2022; 81: 110913
- **An electroencephalogram biomarker of fentanyl drug effects.** *PNAS nexus*
Balanza, G. A., Bharadwaj, K. M., Mullen, A. C., Beck, A. M., Work, E. C., McGovern, F. J., Houle, T. T., Eric, T. P., Purdon, P. L.
2022; 1 (4): pgac158