

2023 ASNM Elections Information Form

Name (as you would like it to appear on the ballot): ***Josh Mergos***

Credentials: ***MS, CNIM, FASNMM***

Position and Organization:

***Clinical Assistant Professor
IONM Program Director
University of Michigan School of Kinesiology***

Education:

***2011 M.S., Biomedical Engineering, Concentration in Neurophysiology
Wayne State University – Detroit, MI***

***2006 B.S., Electrical Engineering
University of Michigan – Dearborn, MI***

Professional Affiliations:

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

2010 – Present American Society of Neurophysiological Monitoring (ASNMM)
2011 – Present ASET – The Neurodiagnostic Society

Publications, Awards & Appointments:

ACADEMIC, CLINICAL, AND ADMINISTRATIVE APPOINTMENTS

2014 – Present University of Michigan School of Kinesiology
Clinical Assistant Professor, Movement Science Program
IONM Program Director

2012 – 2014 University of Michigan School of Kinesiology
Adjunct Clinical Assistant Professor – Movement Science Program

HONORS AND AWARDS

- 2022 Fellow – American Society of Neurophysiological Monitoring.
- 2017-2018 Interprofessional Education Leadership Fellow. University of Michigan
- 2008 Mary Stecker Travel Award for Aspiring Students in the Field of IOM. American Society of Neurophysiological Monitoring

PUBLICATIONS

Peer-reviewed publications

1. Goldenkoff E, McGregor H, **Mergos J**, Gholizadeh P, Bridenstine J, Brown M, Vesia M. Reversal of Visual Feedback Modulates Somatosensory Plasticity. *Neuroscience*. 452(1): 335-344, 2020. DOI: 10.1016/j.neuroscience.2020.10.033.
2. Kelling S, Hisamatsu R, Dublin L, **Mergos J**, Anderson OS. An asynchronous, interprofessional teams and teamwork experience for the first-exposure learner. *Journal Interprofessional Care and Practice*. 2019 March, 14. DOI: 10.1016/j.xjep.2018.11.006

Book Chapters

Mergos J, Kale E, Husain A. “Training Curriculum for NIOM.” *A Practical Approach to Intraoperative Neurophysiologic Monitoring*. 2nd ed. Ed. Aatif M. Husain. Demos Medical, 2014. 334 - 353. Print.

CONFERENCE PROCEEDINGS

Abstracts and Poster Presentations

1. Harvey S, Hill J, VanZalen J, Hala P, Gok, E, Phillips A, Pak O, Willett N, Ali T, Jung J, **Mergos J**, Bartlett R, Rojas-Peña A, Neumar, R. “Effects of Anticoagulation and Thrombolytic Therapy in a Porcine Model of Prolonged Out-of-hospital Cardiac Arrest Treated with ECPR”. Abstract 113: *Circulation*. 142. 2020 10.1161/circ.142.suppl_4.113.
2. Hsu CH, **Mergos J**, Rojas-Pena A, Gok E, Jung J, Stacey W, Neumar RW. Patterned Recovery of SSEPs Following Cardiac Arrest. 4th International Symposium on Post Cardiac Arrest Care, Lund, Sweden, 2826-A-1904, 2019.
3. Alqadri S, Minecan D, Chaudhary N, Mihaylova N, Pandey A, Gallagher G, **Mergos J**. “Intraoperative Detection of Posterior Circulation Transient Ischemic Attack: Single Case Study”. Poster at the 31st International Congress of Clinical Neurophysiology – Washington D.C., 2018.
4. Goldenkoff D, **Mergos J**, Minecan D. “Predicted Stimulus Thresholds of Thoracic Pedicle Screws in the Pediatric Population”. Poster at the 31st International Congress of Clinical Neurophysiology – Washington D.C., 2018.
5. Kelling S, Hisamatsu R, Anderson O, Dubin L, **Mergos J**. “An Asynchronous, Interprofessional Teams and Teamwork Experience for the First-exposure Learner.” Health Professions Education Day. Ann Arbor, MI 2018.

6. Werner NL, Phillips JP, Hirschl JR, Bachman MS, McCracken BM, Worthey CP, Ren X, **Mergos J**, Hsu CH, Stacey WC, Bartlett RH, Rojas-Pena A, Neumar R. “Effects of Early Administration of Unfractionated Heparin During Prolonged Cardiac Arrest in a Porcine Model of Extracorporeal Cardiopulmonary Resuscitation”. Resuscitation Science Symposium – Anaheim, CA. November, 2017.
7. **Mergos J**, Werner NL, Chulski N, Villa C, Stacey W, Rojas-Pena A, Neumar RW. “Scalp-recorded Somatosensory Evoked Potentials in Swine are Viable for Studying Cerebral Ischemic Injury and Recovery Secondary to Cardiac Arrest”. Poster at American Clinical Neurophysiology Society Annual Meeting – Orlando, FL. February, 2016.
8. **Mergos J**, Singh V, Minecan D, Pandey A. “Clinical Utility and Yield of Pharmacologic Provocative Testing During ‘High’ and ‘Low’ Risk Spinal Endovascular Procedures”. Poster at American Clinical Neurophysiology Society Annual Meeting – Orlando, FL. February, 2016.
9. **Mergos J**, Chulski K, Chulski N. “Maximizing Student Exposure to Relevant Clinical Rotation Experiences in Intraoperative Neuromonitoring and Enhancing Student Learning Using Clinical Hours as an Assessment Benchmark.” Health Professions Education Day. Ann Arbor, MI 2015.
10. Singh V, **Mergos J**, Glynn S, Bush B, Kushwaha R, Minecan D. “Safety of Transcranial Electrical Motor Evoked Potential in Patients with Epilepsy”. Poster at American Clinical Neurophysiology Society Annual Meeting – Houston, TX. February, 2015.
11. **Mergos J** “A Bachelor’s Degree Program for the Neuromonitorist“. Platform Presentation at ASET – The Neurodiagnostic Society Annual Meeting – Asheville, NC. August, 2014.
12. **Mergos J**, Bush B, Khan F, Minecan D, and Hart R. “Dexmedetomidine’s Effect on Transcranial Electric Motor Evoked Potential Monitoring for Pediatric Patients Undergoing Spinal Correction Surgery”. Poster at American Clinical Neurophysiology Society Annual Meeting – San Antonio, TX. February, 2012.

1. How do you feel you can contribute to the leadership of ASNM? What strengths/passions/talents do you hold that would benefit ASNM?

The ASNM has made giant strides over the past 30 years, and while its goal has remained the same, the society’s method and approach to accomplish this goal has changed based on what has been needed as well as the composition of its membership and board.

I have learned so much about the field of IONM over the past 15 years and I have dedicated a majority of my career to education. I am passionate about teaching the why behind everything we do in the OR. I have been a strong advocate for raising the bar for education in our field and have led revisions on educational standards for IONM as a member of the Committee on Accreditation for Education in Neurodiagnostic Technology (CoA-NDT) during which time I engaged in conversations with representatives from our sister societies, including ASET, ACNS, and AAN, to discuss these topics. As one of

ASNM's representatives on this committee, I advocated for higher responsibilities and accountability for the practitioner in the OR. My passion and work in elevating the role of the practitioner, while also raising the bar for our educational and practice standards is my greatest strength that I bring to the ASNM.

2. With changes in health care service delivery and reimbursement, what and how do you feel you can contribute to keep ASNM moving forward in the right direction?

*There are many facets and pieces of this puzzle, including advocacy for the profession. Many of my colleagues currently and formerly on the board have utilized their experience and knowledge of billing and insurance claims to advocate for proper payment for IONM. I believe that two of the greatest arguments for these requests is to 1) demonstrate value of the serve (i.e., reduction in surgical injury) and 2) demonstrate competency of the service provider. Our field still lacks minimal **educational** standards that are procedure-specific. I believe that the ASNM is the society to develop such standards. While the prescription of a specific monitoring paradigm for each individual case should certainly be done by the monitoring team in conjunction with the surgeon, our field needs procedure-specific standards of education for those prescribing and implementing the monitoring on more advanced cases. This will protect our field from poor outcomes secondary to the practice of poor monitoring. In the words of Nancy Epstein and Mark Stecker, "IONM is only as good as how competently it is implemented by the technologist/neurologist, and how well it is understood by the surgeon and anesthesiologist."*

3. ASNM constantly seeks ideas of how to better serve our membership through education, resources, representation to other professional entities, connections and networking or other means of advancement. What do you think ASNM could offer its members that would provide value?

The ASNM has provided high quality educational offerings for decades. Over this same time span, the scope and breadth of monitoring has expanded exponentially. I believe the ASNM could develop and provide a systematically organized catalogue of peer-reviewed and other publications appropriate for various surgical procedures and advanced techniques.

A secondary resource or offering to this would be procedure-based educational offerings. These have typically been grouped into larger annual meetings and/or symposia, but mini-courses that encompass the anatomy, physiology, surgical, and monitoring techniques for specialized (and newer) methods would be an excellent resource to practitioners eager to learn and become proficient in newer methods. One example of this is the topic of this year's fall symposium, specifically focusing on IONM for oncology procedures.

A salary survey for both contract and in-house groups would be a phenomenal resource for our membership. These data are not widely publicized but crowd-sourcing this from our membership, given its growing size would be a valuable resource, particularly for those employed by in-house groups.

4. How do you see the role of the ASNMM in advocating for the profession on intra-operative neuromonitoring?

ASNMM has been, since its inception, the go to society for the most up-to-date standards of practice, i.e. education. I see the ASNMM as the prominent society to establish procedure-specific standards of education; beyond providing the education itself, ASNMM won't simply define the curriculum for a CNIM, but set high standards of education for various types of procedures – as these have become more and more complex over the years.

5. Describe your academic or professional contributions to the field of intra-operative neuromonitoring (this can include publications, reviews, research contributions, creating or advancing professionalism in a service that is dedicated to intra-operative neuromonitoring, education, outreach, presentations, running or organizing meetings (in-house, local, national, international), societal contributions ...)

My career's work to date has been the development of an extensive collegiate-level program of study in IONM, encompassing 2 years of classroom, laboratory, and clinical work. Established as the very first accredited IONM program, it boasts over 100 alumni to date. I have since served on the accreditation committee for two terms and helped lead the revisions of the standards and guidelines for IONM educational programs. I have regularly lectured to our hospital's neuroanesthesia and neurology fellows on the practice of IONM over the past ten years. I have also presented several conference abstracts and have given numerous talks at IONM conferences on topics ranging from Electrical Troubleshooting to Cerebrovascular Anatomy and Physiology. Additionally, I have co-chaired two regional conferences in 2014 and 2015 for the ASNMM.

6. Personal Statement: Please provide any additional information to the members.

I attended my first ASNMM meeting in Chicago in 2008. I had just recently begun my job as a neuromonitorist trainee at a local hospital while I completed my master's degree in biomedical engineering. I was fascinated with the field of IONM and had endless questions for my preceptors, asking for journal articles to read about the role of IONM in a wide variety of surgical procedures. My supervisor at the time encouraged me to attend the annual ASNMM meeting where I could hear lectures from many of the leaders and founders of the field. I attended my first meeting, with the support of the Mary Stecker Travel Award for Aspiring Students in the Field of IOM. I was enthralled by that experience. I was shocked by what an enthusiastic and welcoming community of neuromonitorists I found at that meeting. Over the years, my experience with the society

has been wonderful, and I can thank the ASNM for nurturing my growth in the field, as well as connecting me with so many like-minded individuals who love the field as much as I do. I want to serve the society that gave me such a strong base as I began my career in this field, and continue to foster the community that allows and encourages the exchange of new ideas, mentorship, and collegiality. Thank you for your consideration in electing me to the Board. I look forward to using my strengths, experience, and passion to help our society be the best it can be for our field.

2023 Nominees Conflict of Interest Disclosure categories

- Disclosures
 - **Scientific advisory board:** none
 - **Scientific research:** none
 - **Speakers bureau:** none
 - **Stock holder (only if >5% in the company):** none
 - **Stock options:** none
 - **Company leadership/board of directors:** none
 - **Product Royalties:** none
 - **Travel (paid for by other than your employer):** none
 - **Society leadership and IONM related boards:** none currently, IONM special interest section leader, ASET
 - **Patents:** none
 - **Employed by:** University of Michigan