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Clinical Associate Professor and IONM Program Director
University of Michigan School of Kinesiology
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EDUCATION

- 2011 M.S., Biomedical Engineering, Concentration in Neurophysiology
Wayne State University – Detroit, MI
- 2006 B.S., Electrical Engineering
University of Michigan – Dearborn, MI

ACADEMIC, CLINICAL, AND ADMINISTRATIVE APPOINTMENTS

Academic

- 2022 – Present University of Michigan School of Kinesiology
Clinical Associate Professor – Movement Science Program
- 2014 – 2022 University of Michigan School of Kinesiology
Clinical Assistant Professor – Movement Science Program
- 2012 – 2014 University of Michigan School of Kinesiology
Adjunct Clinical Assistant Professor – Movement Science Program

Clinical

- 2010 – 2014 University of Michigan Health System / Michigan Medicine
Intraoperative Neuromonitorist – Department of Neurology
- 2009 – 2010 Beaumont Hospital, Royal Oak, MI
Intraoperative Neuromonitoring Preceptor - Clinical Neurophysiology Department
- 2008 – 2010 Beaumont Hospital, Royal Oak, MI
Intraoperative Neuromonitorist – Clinical Neurophysiology Department

Administrative

- 2025 – Present University of Kinesiology
Intraoperative Neurophysiology Graduate Degree Program Director
- 2014 – Present University of Michigan School of Kinesiology
IONM Program Director

CERTIFICATION

- 2008 Certification in Neurophysiologic Intraoperative Monitoring – ABRET
Certificate #1613

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

2022 – Present	Fellow – American Society of Neurophysiological Monitoring (FASNM)
2010 – Present	American Society of Neurophysiological Monitoring (ASNM)
2011 – Present	ASET – The Neurodiagnostic Society

HONORS AND AWARDS

2017 – 2018	Interprofessional Education Leadership Fellow. University of Michigan
2017	Taubman Institute Scholar. University of Michigan Ross School of Business
2008	Mary Stecker Travel Award for Aspiring Students in the Field of IOM. ASNM

TEACHING

Proper education in any health science field involves the dissemination of knowledge through the most effective domains, spanning the classroom (whether in-person or virtual), the hands-on laboratory, and the clinical practice setting. Beyond this, the proper sequencing of this is crucial, allowing the instructor to draw from classroom concepts when teaching in the clinical setting and likewise to draw from clinical experiences to highlight specific topics in the classroom. The focus of my teaching is on the relevant application of neurophysiologic principles to the surgical setting. Drawing from my experience in the surgical environment, I inspire students to master their comprehension of the neural and vascular mechanisms of intraoperative injury by using illustrative cases. Both recent and seminal peer-reviewed literature in the field of IONM forms the main substance of reading material for the courses I teach. Not only does this provide a practical and clinically applicable knowledge base for lectures and discussions, but this also further equips students with the skills to continue their education far beyond their time here.

COURSES TAUGHT

2015 – Present	MVS 467	Clinical Rotations in IONM III
2013 – Present	MVS 465	Neuroanesthesia and Advanced Topics in IONM
2013 – Present	MVS 466	Clinical Rotations in IONM II
2013 – Present	MVS 363	Intraoperative Neurophysiological Monitoring
2013 – Present	MVS 464	Clinical Rotations in IONM I
2012 – Present	MVS 361	Introduction to Surgical Neuromonitoring
2012 – Present	MVS 362.001	Surgical Neuromonitoring Lab Lecture
2012 – 17, 24	MVS 362.00x	Surgical Neuromonitoring Laboratory

COURSE DEVELOPMENT

Seated Courses

MVS 361 Introduction to Surgical Neuromonitoring

Developed a surgically based undergraduate neuroanatomy and neurophysiology course. This course introduces students to surgical anatomy and physiology relevant to the field of intraoperative neuromonitoring (IONM), ranging from aneurysm treatment to scoliosis deformity correction to peripheral nerve repair. A firm knowledge of basic neuroanatomy and neurophysiology aids students in identifying indications for and complications of various surgical procedures. These are studied with the intent of examining relevant neurophysiologic structures at risk.

MVS 362 Surgical Neuromonitoring Lab Lecture

Designed a course focused on the electrical and anatomical foundation of electroneurophysiology. A general review of electrical theory enables the student to appreciate how bioelectric signals are processed as well as how electricity can be used to excite neurophysiologic pathways. Focusing on electrical theory and the neuroanatomy of essential neurophysiologic pathways encourages the student to connect the dots between the physics of electricity and the physiology of the human nervous system. This provides the framework necessary to integrate the activities performed in the accompanying lab for further application in an operating room environment during the student's clinical rotation experience.

MVS 363 Intraoperative Neurophysiological Monitoring

Created a foundational course for the intraoperative neurophysiologist. This course builds upon the basic principles introduced in MVS 362, with several weeks focusing on each neurophysiological system that forms the basis for each electroneurophysiologic test utilized for intra-operative neuromonitoring. A replete collection of seminal IONM literature in addition to more recent scholarly work forms the bibliography of this course. Articles detailing the interventional value of IONM methods are included, often complete with surgical case studies. Students are required to present journal articles to the class, allowing them to engage in peer-to-peer evaluation as well as critical review of recently published work in the field. Clinical statistical analysis is also presented in this course, including sensitivity, specificity, and negative and positive predictive value. These are studied for the purpose of critiquing various interpretation strategies for several IONM testing modalities.

MVS 465 Neuroanesthesia and Advanced Topics in IONM

Developed an advanced intraoperative neurophysiology course which details the anatomic, electrical and physiological mechanisms of a wide range of specialized mapping and monitoring schemas employed during various surgical procedures including resection of brain tumors and spinal cord mapping. Additionally, the neuroanesthetic portion of the course was designed to present both the clinical effects of anesthesia on the patient as well as the physiological effects of anesthetics on the electroneurophysiologic responses acquired intraoperatively.

Laboratory Courses

MVS 362.00x Surgical Neuromonitoring Laboratory

Developed a 12-module electroneurophysiology laboratory using industry-standard equipment. Created instructional guides for each module, integrating lab/lecture content. Sequenced complexity of neurophysiologic testing domains to increase throughout the term while concurrently introducing more complex electrical fundamentals. Incorporated video recordings of neurophysiologic data acquisition into course reference materials.

Clinical Experiences

MVS 464 Clinical Rotations in IONM I

Developed an electronic survey-based clinical performance assessment tool for broad-scale use by clinical preceptors within the Michigan Medicine Health System and outside at external clinical rotation sites. Analyzed pilot assessment data over three years and derived a non-linear grading scale based on observed clinical skill improvement trends. Created performance-feedback summaries that provide students with constantly updated rolling-average clinical scores itemized by affective and psychomotor domains. Developed algorithm to correct inter-rater reliability errors in clinical assessment scores.

MVS 466 Clinical Rotations in IONM II

Identified proper scaffolding of psychomotor and affective domain skills to assess during students' second and third clinical rotations. Integrated interprofessional experiential rotations to allow students opportunities to learn from other health professionals including anesthesiologists.

MVS 467 Clinical Rotations in IONM III

Developed weekly online summary assessment quizzes used to evaluate students' retention of cognitive learning objectives covered throughout the program's entirety.

Online Courses

Interprofessional Teams and Teamwork IPE Experience Module

In collaboration with colleagues from the Schools of Public Health, Pharmacy, and Social Work, developed an experiential course module for pre-clinical health students to help explore how personality and conflict resolution styles can affect teamwork in a health care setting.

INVITED LECTURES

International

1. “Education and Training: Why IONM must begin with Scholarship”. September 2017. Canadian Association of Neurophysiological Monitoring 10th Annual Meeting – Toronto, ON
2. “Causes, Classifications, and Indications for Scoliosis Surgery”. August 2017. Lecture for University of Sydney Course CLNP5007 – Intraoperative Monitoring II (Master of Science in Medicine – Clinical Neurophysiology program)
3. “Neurologic Risks of Scoliosis Surgery”. August 2017. Lecture for University of Sydney Course CLNP5007 – Intraoperative Monitoring II (Master of Science in Medicine – Clinical Neurophysiology program)
4. “Monitoring Modalities for Scoliosis Surgery”. August 2017. Lecture for University of Sydney Course CLNP5007 – Intraoperative Monitoring II (Master of Science in Medicine – Clinical Neurophysiology program)

National

1. “Real-Time Decision-Making: Responding to IONM Changes in the OR”. MIND 2026 Conference: A Concert of Neuroscience and Innovation. Charleston, SC. April 2026
2. “Temporal Dynamics of Cranial Nerve Mapping and Monitoring: The Anatomy and Physiology of a Reflex”. February 2024. American Society of Neurophysiological Monitoring Winter Town Hall.
3. “Developing an IONM Educational Program”. May 2023. American Society of Neurophysiological Monitoring Annual Meeting – Dallas, TX.
4. “Intraoperative Neurophysiologic Monitoring for Spinal Cord Tumor Resection”. September 2022. American Society of Neurophysiological Monitoring Fall Virtual Symposium.
5. “Cerebral Blood Flow Anatomy and Physiology”. May 2022. American Society of Neurophysiological Monitoring Annual Meeting – Clearwater Beach, FL
6. “Troubleshooting (or Reverse Engineering) Recording Artifacts”. May 2022. American Society of Neurophysiological Monitoring Annual Meeting – Clearwater Beach, FL
7. “Neuromonitoring in the Interventional Neuroradiology Suite”. February 2018. American Society of Neurophysiological Monitoring Annual Meeting – Orlando, FL
8. “Bioelectric and Neurophysiologic Principles of MEPs and Alert Criteria”. January 2017. National Neuromonitoring Education Symposium – Austin, TX
9. “Craniotomy Procedures and Indicated IONM Modalities”. January 2017. National Neuromonitoring Education Symposium – Austin, TX
10. “Formalized Education for Intraoperative Neurophysiological Monitoring”. February 2015. American Society of Neurophysiological Monitoring Regional Symposium – Scottsdale, AZ
11. “Challenges and Special Considerations for Monitoring EMG”. May 2014. American Society of Neurophysiological Monitoring Annual Meeting – Chicago, IL
12. “Case-specific Electrical Techniques and Considerations for Tce-MEPs”. September 2013. Southern Society of Electroneurodiagnostic Technologists – Savannah, GA

13. “Pitfalls of Monitoring Intracranial Pathology”. February 2013. American Society of Neurophysiological Monitoring Winter Symposium – San Antonio, TX
14. “Intraoperative Neurophysiological Monitoring in the Interventional Neuroradiology Suite”. October 2012. Southern Society of Electroneurodiagnostic Technologists – Orlando, FL
15. “Technical Considerations for Brain IONM”. May 2012. American Society of Neurophysiological Monitoring Annual Meeting – Salt Lake City, UT

Regional

1. “Spinal Cord Mapping Techniques: Anatomy and Bioelectrical Principles.” April 2024. Central Society of Electroneurodiagnostic Technology Annual Meeting – LaCrosse, WI
2. “Visual Evoked Potentials.” April 2023. Central Society of Electroneurodiagnostic Technology Annual Meeting – Grand Rapids, MI
3. “Temporal Dynamics of MEPs and SSEPs for Cerebrovascular Procedures.” April 2023. Central Society of Electroneurodiagnostic Technology Annual Meeting – Grand Rapids, MI
4. “Intraoperative Neurophysiologic Monitoring”. November 2014. Michigan Society of Clinical Engineers Meeting – Ann Arbor, MI
5. “A Bachelor’s Degree Program for the Neuromonitorist”. September 2014. Michigan Neurodiagnostic Society Fall Meeting – Novi, MI

University

1. 2025: “Introduction to Intraoperative Neurophysiological Monitoring.” University of Michigan Department of Anesthesiology – Division of Neuroanesthesia Fellows Education Conference.
2. 2013 – 2020: “Advanced Techniques in Intraoperative Neuromonitoring.” University of Michigan Department of Anesthesiology – Division of Neuroanesthesia Fellows Education Conference.
3. 2013 – 2020: “Introduction to Intraoperative Neurophysiological Monitoring.” University of Michigan Department of Anesthesiology – Division of Neuroanesthesia Fellows Education Conference.
4. 2015 – 2019: “Intraoperative Neuromonitoring for the Resident Neurosurgeon.” University of Michigan Department of Neurosurgery PGY1 Lecture Series.
5. 2012 – Present: “Introduction to Intraoperative Neuromonitoring.” Department of Neurology Fellowship in Clinical Neurophysiology Lecture Series.
6. “Intraoperative Neurophysiological Monitoring.” *UMich2020’s Feast of Ideas*. April 6, 2017. Ann Arbor, MI
7. 2014 – “Intraoperative Neuromonitoring – Fundamentals for Nurse Anesthetists.” University of Michigan Department of Anesthesiology - Nurse Anesthesia Education Series.
8. 2013 – “Intraoperative Neuromonitoring in Orthopedic Spinal Surgery.” University of Michigan Department of Orthopedic Surgery.
9. 2012 – “Intraoperative Neurophysiological Monitoring.” University of Michigan Department of Anesthesiology Grand Rounds.

WORKSHOPS AND SEMINARS

- Sept 2025 Commissioned Training in Intra-Operative Neuro-Monitoring (IONM) – Advanced Neuro-Monitoring Practices. Pamela Youde Nethersole Eastern Hospital, Hong Kong. Presented ten lectures on advanced neuromonitoring techniques to neurosurgeons, anesthesiologists, and neurosurgical nurses.
- 2015- 19, 24 Foundations of Neuromonitoring and its Application - Annual week-long seminar and workshop for neurosurgeons, orthopedic surgeons, and nursing staff from various international healthcare centers. University of Michigan, Ann Arbor, MI.
- 2014 Presented 3-day seminar and workshop on the fundamental theory, basis, and application of IONM. Queen Elizabeth Hospital Department of Neurosurgery & Institute of Advanced Nursing Studies – Kowloon, Hong Kong.
- 2010 Lecture and precepting of neurophysiological monitoring techniques during spinal cord and tethered cord surgery. Makati Medical Center – Manila, Philippines.
- 2010 Demonstrated techniques in intraoperative monitoring for tethered cord surgery. Educated anesthesiology staff on specific applications of various modalities for procedures. Trained OR personnel on fundamentals of electrical interference with IONM. Presented to Department of Neurosurgery on indications for and benefits of intraoperative monitoring for spinal cord tumor and tethered cord surgery. King Chulalongkorn Memorial Hospital – Bangkok, Thailand.
- 2010 Lectured on IONM principles and techniques to neurosurgery faculty and staff. Dr. Soetomo Hospital – Surabaya, Indonesia.
- 2010 Lectured on the utility of IONM for spinal corrective surgery and its application for minimally invasive approaches. Sahid Sahrman Memorial Hospital Spine Center – Jakarta, Indonesia.

SCHOLARSHIP

The focus of my research is on the precise and dynamic interpretation of evoked electroneurophysiologic activity within the brain and spinal cord in the context of ischemia. This can be applied to 1) acute scenarios such as interventional surgical procedures that carry the risk of long-term neurological deficits resultant of reversible intraoperative ischemia, or 2) post-ischemic scenarios such as cardiac arrest that may benefit from treatment directed by electroneurophysiologic findings. Collaboration with colleagues in the Departments of Neurosurgery and Emergency Medicine has allowed me to contribute to larger projects in the realm of my specific research interests.

PUBLICATIONS

Peer-reviewed publications

1. VanZalen, J. J., Nakashima, T., Phillips, A., Hill, J. E., Westover, A. J., Lou, L., Liao, J., **Mergos, J.**, Fogo, G., Sanderson, T. H., Stacey, W. C., Tiba, M. H., Humes, D. H., Bartlett, R. H., Rojas-Peña, A., & Neumar, R. W. (2024). Leukocyte filtration and leukocyte modulation therapy during extracorporeal cardiopulmonary resuscitation in a porcine model of prolonged cardiac arrest. *Scientific reports*, 14(1), 13081. <https://doi.org/10.1038/s41598-024-63522-w>
2. VanZalen, J. J., Harvey, S., Hála, P., Phillips, A., Nakashima, T., Gok, E., Tiba, M. H., McCracken, B. M., Hill, J. E., Liao, J., Jung, J., **Mergos, J.**, Stacey, W. C., Bartlett, R. H., Hsu, C. H., Rojas-Peña, A., & Neumar, R. W. (2023). Therapeutic Effect of Argatroban During Cardiopulmonary Resuscitation and Streptokinase During Extracorporeal Cardiopulmonary Resuscitation in a Porcine Model of Prolonged Cardiac Arrest. *Critical care explorations*, 5(5), e0902. <https://doi.org/10.1097/CCE.0000000000000902>
3. 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: <https://doi.org/10.1016/j.neuroscience.2020.10.033>
4. Anderson S, Hisamatsu R, Dubin L, **Mergos J**, Vordenberg S. An asynchronous, interprofessional teams and teamwork experience for the first-exposure learner. *Journal of Interprofessional Education & Practice*. 14: 47-52, 2019. DOI: <https://doi.org/10.1016/j.xjep.2018.11.006>

Book Chapters

1. Dowlati E, Harake E, Koduri S, Pandey A, **Mergos J**. “Endovascular Embolization of Cerebral Aneurysms and Arteriovenous Malformations.” *Operative Neurophysiology: Practical Application for Comprehensive Neuromonitoring and Neuromapping Techniques*. Ed. Justin Silverstein. Springer, 2026 (forthcoming May 2026)
2. Lima E, **Mergos J**, Hoffman EM. “Motor Evoked Potentials.” *Operative Neurophysiology: Practical Application for Comprehensive Neuromonitoring and Neuromapping Techniques*. Ed. Justin Silverstein. Springer, 2026 (forthcoming May 2026)
3. **Mergos J**. “Triggered EMG.” *Operative Neurophysiology: Practical Application for Comprehensive Neuromonitoring and Neuromapping Techniques*. Ed. Justin Silverstein. Springer, 2026 (forthcoming May 2026)

4. **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. Willet N, Terman S, **Mergos J**, Jackson M, Ward A, Gomez-Hassan D, Glynn S, Szerlip N, Saadeh Y. “Association of Pre-myelotomy Dorsal Column Mapping and Preservation of Somatosensory Evoked Potentials During Intramedullary Tumor Resection: A Case-control Study. Platform Presentation at American Society of Neurophysiological Monitoring Annual Meeting – Denver, CO – 2025
2. Willett N, Harake E, **Mergos J**, Albdewi M, Ogunsola O, Glynn S, Szerlip N. “Baseline Motor Evoked Potentials in Spinal Tumor Surgery: Predictive Factors and Surgical Outcomes”. Poster at American Society of Neurophysiological Monitoring Annual Meeting – Denver, CO – 2025
3. Harding L, **Mergos J**, Tiba M, Cramer T, Greer N, Stacey W, Sandroni C, Sanderson T, Neumar R, Hsu C. “Early Serial Somatosensory Evoked Potentials Can Assess Brain Injury Severity and Recovery in Swine Cardiac Arrest Models”. Abstract Sa506: Circulation. 150. 2024
https://www.ahajournals.org/doi/10.1161/circ.150.suppl_1.Sa506
4. 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 https://www.ahajournals.org/doi/10.1161/circ.142.suppl_4.113
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. **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.

11. **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.
12. **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.
13. 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.
14. **Mergos J** “A Bachelor’s Degree Program for the Neuromonitorist“. Platform Presentation at ASET – The Neurodiagnostic Society Annual Meeting – Asheville, NC. August, 2014.
15. **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.

GRANTS

Principal Investigator

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| 2018 – 2022 | M-Cubed: Early Recovery Rate Neuroprognostication Following Cardiac Arrest.
Funding: \$60,000.
Role: Principal Investigator |
| 2014 | The University of Michigan Center for Research on Learning and Teaching: Creation of Integrated Surgical & Neurophysiologic Video Data Streams to Enhance Student Visual Learning.
Funding: \$6,000.
Role: Principal Investigator |

Co-Investigator

Submitted

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| 2025 | |
| (2026 – 2030) | NHLBI Program Project Application (P01, PAR-24-065): REVIVE-SCA: REsuscitation Via IndiVidualized stratEGies for Sudden Cardiac Arrest.
Funding Requested: \$13,421,325.
Role: Co-Investigator
PI: Robert Neumar, MD, PhD & Thomas D Rea, MD, MPH |

Funded

- 2022 – 2024 NIH 1R61 NS123760: **Development and Validation of a Clinically Relevant Swine Model of Neurologic Injury after Cardiac Arrest to Translate Neuroprotective Therapies.**
Funding: \$1,154,294.
Role: Co-Investigator
PI: Cindy Hsu, MD, PhD & Fred Korley, MD, PhD
- 2017 – 2021 NIH 1R01 HL133129: **ECPR After Prolonged Cardiac Arrest: Targeting Mechanisms of the No-Reflow.**
Funding: \$3,067,247.
Role: Co-Investigator
PI: Robert Neumar, MD, PhD & Robert Bartlett, MD
- 2017 – 2018 Center for IPE through UM Transforming Learning for a Third Century grants program: **An Asynchronous, Interprofessional Teams and Teamwork Experience For The First-Exposure Learner.**
Funding: \$5,000.
Role: Co-Investigator

SERVICE

The focus of my service to the University and to the broader scientific and medical community at a regional, national, and international level is the advancement and standardization of education and practice in the field of Intraoperative Neurophysiology. I developed the world's first CAAHEP-accredited IONM program at the University of Michigan, carefully sequencing seated, laboratory, and clinical experiences to most effectively deliver curricular content. I did this while ensuring proper alignment with existing CAAHEP Standards and Guidelines for Educational Programs in Intraoperative Neurophysiologic Monitoring and have since been heavily involved in reviewing and updating these based on newer applications in the clinical realm. In addition to administrating the IONM program, at the School level, I have actively contributed to securing endowed scholarships and gifts to the school to support students and create state of the art learning spaces.

COMMITTEE AND ORGANIZATIONAL SERVICE

- 2025 – Present Clinical Faculty Search Committee Chair for IONP – University of Michigan School of Kinesiology.
- 2024 – Present Membership Committee Chair – American Society of Neurophysiological Monitoring.
- 2024 Clinical Faculty Search Committee Member for MVS/AT – University of Michigan School of Kinesiology.
- 2023 – 2024 Bylaws Committee Member – American Society of Neurophysiological Monitoring.

2023 – 2025	Curriculum Review Committee – University of Michigan School of Kinesiology – Movement Science Program
2023 – Present	Board Member – American Society of Neurophysiological Monitoring.
2021 – Present	Education Committee Member - American Society of Neurophysiological Monitoring
2021 – 2023	Clinical Reappointment Guidelines Committee – University of Michigan School of Kinesiology: Contributed to the review and revision of guidelines for reappointment of Clinical-rank faculty within the school.
2021	Subject Matter Expert on Job Task Analysis for Certification in Neurophysiologic Intraoperative Monitoring (CNIM) Exam – American Board of Registered Electroneurodiagnostic Technologists (ABRET).
2016 – 2021	Board Member - Committee on Accreditation for Education in Neurodiagnostic Technology (CoA-NDT): As an appointed member by the ASNM to the CoA-NDT, I have participated in the review of numerous neurodiagnostic education programs as well as served as a site visitor and reviewer of two University-based Intraoperative Neurophysiological Monitoring programs. I also helped lead the recent comprehensive review and update of CAAHEP's Standards and Guidelines for Educational Programs in Intraoperative Neurophysiologic Monitoring.
2016 – Present	IONM Interest Section Leader – ASET: Contribute to quarterly publication on current topics in the field of IONM and co-moderate online help forum for technical and practical questions in IONM.
2018 – 2020	Clinical Promotion Committee – University of Michigan School of Kinesiology: Contributed to the review and revision of guidelines for the appointment and promotion of Clinical-rank faculty within the school.
2012 – 2015	Formal Education Task Force – ASET: Contributed to the creation of informational content to provide to health science deans throughout the country to advocate for the development of collegiate neurodiagnostic and IONM academic programs.
2012 – 2014	Membership Committee - ASNM
2011 – 2012	Newsletter Editorial Committee Acting Chair – ASNM

PRESS / CONSULTATION

- 2016 – Present Expert witness for plaintiffs and defendants in medical legal proceedings involving post-operative neurologic dysfunction following neurosurgical and orthopedic spinal procedures utilizing IONM.
- 2018 Consultant for review of internal education and training program for IONM service provider.
- October 30, 2015 “Neuromonitoring graduates help surgeons perform safer operations.” Laura Bailey, *Campus News*. <https://record.umich.edu/articles/neuromonitoring-graduates-help-surgeons-perform-safer-operations>.
- April 20, 2014 “Inaugural class with unique Kinesiology degree set to graduate.” Claire Bryan, *The Michigan Daily*. <https://www.michigandaily.com/news/new-clinical-program-piloted-school-kinesology>.

PROFESSIONAL SOCIETY MEETINGS CHAIRED

- 2015 “Intraoperative Neurophysiology for Interventional Neuroradiology”. American Society of Neurophysiological Monitoring Fall Symposium. September, 2015. Philadelphia, PA
- 2014 “Perioperative Perspectives in Intraoperative Neurophysiological Monitoring”. American Society of Neurophysiological Monitoring Fall Symposium. September, 2014. Ann Arbor, MI