

# CURRICULUM VITAE

Last Updated: Jan 22<sup>nd</sup>, 2026

## Faisal RIAZ JAHANGIRI

**MD, CNIM, D.ABNM, FASN, FASET**

**Assistant Professor of Instruction, Dept. of Neuroscience, School of Behavioral & Brain Sciences, The University of Texas at Dallas, Richardson, TX**  
**Adjunct Professor, Labouré College of Healthcare, Milton, MA**  
**Faculty, Lawrence Technological University, Southfield, MI**

**President & CEO, Global Innervation LLC**  
**Director, IONM Fellowship/Diploma Programs**

Diplomate, American Board of Neurophysiological Monitoring  
Fellow, American Society of Neurophysiological Monitoring (ASNM)  
Fellow, Neurodiagnostic Society  
Mini-Fellowship, Movement Disorders, University of Nebraska Medical Center, NE  
Editor-in-Chief, Journal of Neurophysiological Monitoring  
Board Member-at-Large, ASNM  
Past President, ASNM, 2021-22

### Previous

Senior Consultant, Dept. of Neurosurgery, Hamad Medical Corporation, Doha, Qatar  
Consultant, Dept. of Neurology, King Abdul-Aziz Medical City, Riyadh, Saudi Arabia  
Vice President of Clinical Affairs, Axis Neuromonitoring, Richardson, Texas  
Associate Editor, ASET Neurodiagnostic Journal, 2016-24  
President-Elect, ASNM, 2019-20  
President, ASNM, 2020-21  
Chair, ASNM Membership Committee, 2013-2024

**Office:** JO 3.108  
**Work:** 972-883-3830

**E-mails:** Faisal.Jahangiri@UTDallas.edu

**Websites:** <https://profiles.utdallas.edu/faisal.jahangiri>

## **PROFESSIONAL PROFILE**

---

Dr. Faisal R. Jahangiri is an internationally recognized clinical neurophysiologist and healthcare leader with over 30 years of experience advancing patient safety and surgical outcomes through intraoperative neurophysiological monitoring (IONM). He currently serves as President and Chief Executive Officer of Global Innervation LLC, a Dallas-based organization dedicated to improving neurological outcomes in surgical patients through clinical education, program development, and neuromonitoring innovation.

Dr. Jahangiri provides strategic consulting and clinical oversight to hospitals, neuromonitoring service providers, and medical device organizations across the United States and internationally. His leadership focuses on developing comprehensive IONM programs that integrate surgical planning, anesthesia optimization, intraoperative troubleshooting, quality assurance, and remote neuromonitoring infrastructure. He frequently supports high-complexity neurosurgical, orthopedic, ENT, and peripheral nerve procedures, including advanced brain mapping and brainstem monitoring.

Throughout his career, Dr. Jahangiri has supervised and interpreted neuromonitoring data from more than 18,000 surgical procedures across more than 300 hospitals in more than 20 U.S. states and internationally. He has successfully designed and implemented neuromonitoring programs at major tertiary care centers, including Thomas Jefferson Hospital, Philadelphia, PA, University of Virginia Medical Center, Charlottesville, VA, King Abdulaziz Medical City in Riyadh, Saudi Arabia, and neurosurgical centers in Jeddah, where he led multidisciplinary teams supporting complex cranial, spinal, and peripheral nerve surgeries.

Previously, Dr. Jahangiri served as Vice President of Clinical Affairs for a U.S. based neuromonitoring organization, where he led initiatives to improve patient safety, enhance surgeon satisfaction, and standardize clinical quality metrics across multi-site hospital systems. His responsibilities included clinical program development, technologist training and credentialing, clinical quality auditing, remote monitoring support, and research integration. Earlier in his international clinical career, he served as Consultant Clinical Neurophysiologist at Hamad Medical Corporation in Doha, Qatar, supporting one of the region's largest tertiary care systems.

Dr. Jahangiri maintains active academic appointments as an Assistant Professor of Instruction in Neuroscience at The University of Texas at Dallas and as an Adjunct Professor at Labouré College of Healthcare in Massachusetts. He developed and directs an internationally recognized Diploma and Postdoctoral Fellowship in Surgical Neurophysiology, training neuromonitoring professionals and physicians worldwide.

His professional leadership extends to national clinical societies. Dr. Jahangiri served as President-Elect, President, and Past President of the American Society of Neurophysiological Monitoring (ASNM) and currently serves as a board member. During his leadership tenure, he contributed to advancing national clinical standards, expanding educational programs, and strengthening multidisciplinary collaboration within neuromonitoring practice.

Dr. Jahangiri received his medical degree from Khyber Medical College and completed postgraduate training in general surgery and radiology. He later completed advanced graduate studies in Biomedical Engineering at Case Western Reserve University, where his research focused on functional electrical stimulation, electroencephalography, and surgical imaging technologies. He has held teaching appointments at Case Western Reserve University Schools of Medicine and Dentistry.

Board-certified by the American Board of Neurophysiological Monitoring since 2003, Dr. Jahangiri is a Fellow of the American Society of Neurophysiological Monitoring and the Neurodiagnostic Society. He has authored more than 79 peer-reviewed publications, 30 book chapters, and multiple textbooks focused on neuromonitoring and clinical neurophysiology. He is a frequently invited speaker at national and international clinical conferences and serves as a reviewer for multiple scientific journals.

Dr. Jahangiri is also actively engaged in global healthcare initiatives, collaborating with governmental agencies and medical institutions to introduce neuromonitoring programs in developing healthcare systems. His work continues to focus on expanding access to neuromonitoring technologies and improving neurological safety standards in surgical care worldwide.

## EDUCATION

---

Jan 2022	Re-Certification American Board of Neurophysiological Monitoring (D.ABNM)ABNM, USA	
Dec 2020	<i>Mini-Fellowship in Movement Disorders</i> College of Medicine, Dept. of Neurological Sciences The University of Nebraska Medical Center	Nebraska, NE
Jan 2020	<i>Transcranial Doppler Workshop</i> Axis Neuromonitoring Annual Workshop and Meeting	Richardson, TX
Apr 2019	<i>Transcranial Doppler Workshop</i> Atlantic Health Overlook NeuroConference 2019	Summit, NJ
Apr 2018	<i>AANS 2018 Annual Scientific Meeting,</i> 2 <sup>nd</sup> International Brain Mapping Course	New Orleans, LA
May 2015	<i>Inomed</i> User Meeting: Multimodal Intraoperative Neuromonitoring	Emmendingen, Germany
Mar 2015	"EBM Statistics from Basic to Meta-Analysis" Workshop National & Gulf Center for Evidence-Based Health Practice, Deanship of Postgraduate Education, King Saud Bin Abdulaziz University for Health Sciences	Riyadh, KSA
Oct 2014	<i>Inomed</i> Scientific Workshop: Functional Neurosurgery, Pain Treatment, Neurodiagnostics, IONM	Istanbul, Turkey
Nov 2013	"Qualitative Research: Design and Analysis" Workshop College of Medicine, King Saud Bin Abdulaziz University for Health Sciences,	Riyadh, KSA
Aug 2012	D.ABNM (#60) Re-Certification, Diplomate American Board of Neurophysiological Monitoring	American Board of Neurophysiologic Monitoring
Mar 2012	<i>Inomed</i> Certificate of Advance Training-Multimodal Intraoperative Neuromonitoring	Emmendingen, Germany
Dec 2010	CNIM (#362) Re-Certification in Neurophysiologic Intraoperative Monitoring (CNIM)	ABRET, USA
Fall 2009	<i>University of Virginia</i> Introduction to Public Administration	Charlottesville, VA, USA
Fall 2006	<i>University of Maryland University Campus</i> Public Health Administration	College Park, MD, USA
Jan 2003	D.ABNM (#60) Diplomate American Board of Neurophysiological Monitoring	American Board of Neurophysiologic Monitoring
Oct 2000	CNIM (#362) Certification in Neurophysiologic Intraoperative Monitoring (CNIM)	ABRET, USA

- 1996 - 98      *Case Western Reserve University*      *Cleveland, OH, USA*  
 Postgraduate coursework in Biomedical Engineering
- Nov 1991      *Wahaaj Institute of Ultrasound Imaging*      *Peshawar, Pakistan*  
*Affiliate: Thomas Jefferson University Hospital, Philadelphia, PA, USA*  
 Diploma in basic training in Ultrasound
- Nov 1991      *Khyber Medical College, University of Peshawar*      *Peshawar, Pakistan*  
 MBBS (MD) - Bachelor of Medicine & Bachelor of Surgery

## **QUALIFICATIONS**

---

- 2019    FASET      *ASET- American Neurodiagnostic Society, Kansas City, MO*  
 Fellowship, ASET- American Neurodiagnostic Society
- 2013    FASNМ      *American Society of Neurophysiological Monitoring, Chicago, IL*  
 Fellowship, American Society of Neurophysiological Monitoring
- 2013    P.I.      *National Guard Health Affairs, King Abdulaziz Medical City, Riyadh, KSA*  
 Principal Investigator Registration
- 2012    ICH-GCP Course      *National Guard Health Affairs, King Saud Bin Abdulaziz University  
 For Health Sciences, King Abdullah International Medical Research Center, Certification of  
 International Conference on Harmonization's Good Clinical Practice for Conducting Research  
 Riyadh, KSA*
- 2012    Consultant      *Saudi Commission for Health Specialties, KSA*  
 Professional Registration as a Consultant (Neurophysiologic Monitoring) with Saudi Commission
- 1992    Licensed Practitioner      *Pakistan Medical & Dental Council, Islamabad, Pakistan*  
 Qualified to practice Medicine & Surgery in Pakistan

## **EMPLOYMENT RECORD**

---

- 08/22-Present    *The University of Texas at Dallas*      *Richardson, TX, USA*  
*Assistant Professor of Instruction, Dept. of Neuroscience*  
 School of Behavioral and Brain Sciences
- 08/19-2022      *The University of Texas at Dallas*      *Richardson, TX, USA*  
*Lecture, Dept. of Neuroscience*  
 School of Behavioral and Brain Sciences
- 05/16-Present    *Labouré College of Healthcare*      *Milton, MA, USA*  
*Adjunct Professor*  
 Intraoperative Neuromonitoring (IONM) Certificate Program

12/11-Present:	Global Innervation LLC <i>President &amp; CEO</i>	Dallas, TX USA
 <i>Independent Consulting Services:</i>		
12/22-Current:	Remote - Axis Neuromonitoring LLC	Richardson, TX, USA
02/17- 12/17	Director of Medical Services, IONM Training & Education Consulting – Neuroalert LLC	White Plains, NY, USA
08/16-08/16	CNIM Training Workshop – Neuroalert LLC	White Plains, NY, USA
06/15-08/15	Associate – SpecialtyCare	Roanoke, VA, USA
07/14-08/14	Contractor – STIM, Inc	Charlotte, NC, USA
07/13-08/13	Training and Education Specialist Safe Passage Neuromonitoring, LLC	New York City, NY, USA
08/24- Present	Lawrence Technological University Faculty, IONM Program	Southfield, MI, USA
09/21-2022	College of Health Sciences, Rush University <i>Adjunct Instructor</i> , Dept. of Health Sciences	Chicago, IL, USA
01/18-11/21	Axis Neuromonitoring LLC Vice President of Clinical Affairs	Richardson, TX, USA
05/17-12/17	Hamad Medical Corporation (HMC) Senior Consultant, Dept. of Neurosurgery, Neuroscience Institute	Doha, Qatar
09/11-01/17	<i>King Abdulaziz Medical City</i> <i>Ministry of National Guard Health Affairs</i> Consultant Clinical Neurophysiology, Division of Neurology, Department of Medicine	Riyadh, KSA
01/04-09/11	<i>Impulse Monitoring Inc.</i> <i>04/09 – 09/11</i> Senior Clinical Neurophysiologist and Research Coordinator, University of Virginia Medical Center (UVMC)	Charlottesville, VA, USA
	<i>10/07 - 03/09: Supervisor Neurophysiologist</i> University of Virginia Medical Center (UVMC)	Charlottesville, VA, USA
	<i>5/07 - 9/07: Regional Manager, Washington DC &amp; Maryland</i> Senior Clinical Neurophysiologist & Trainer Hiring In-charge, Entry and Advanced Level Technologists	Columbia, MD, USA
	<i>6/05 - 5/07: Regional Manager, Maryland &amp; New Jersey</i> Senior Clinical Neurophysiologist & Trainer Hiring In-charge, Entry and Advanced Level Technologists	Columbia, MD, USA

	9/04 - 5/05: West Coast Regional Manager Senior Clinical Neurophysiologist & Trainer	Seattle, WA, USA
	1/04 - 8/04: Senior Clinical Neurophysiologist & Trainer	Columbia, MD, USA
5/02-1/04	<i>Sentient Medical Systems</i> Member, Corporate Executive Board, Director, Pennsylvania & New Jersey LLCs	Philadelphia, PA, USA
5/99-5/02	<i>Biotronic NeuroNetwork.</i> Senior Neurophysiologist	Ann Arbor, MI, USA
1995-98	Case <i>Western Reserve University</i> , 1997 – 98: IT Consultant, WHO Collaboration Center, <i>F.P.B. School of Nursing</i>	Cleveland, OH, USA
	1995 – 98: Research Assistant, Department of Biomedical Engineering, <i>School of Engineering</i>	
	1996-97: Course Instructor, Department of Anatomy, <i>Schools of Dentistry &amp; Medicine</i>	
1995-96	<i>Cleveland Clinic Foundation</i> Cell Matrix Laboratory Research Associate, Department of Biomedical Engineering	Cleveland, OH, USA
1992-93	<i>Samaritan Hospital</i> Extern, Department of Radiology	Troy, NY, USA
5/92-8/92	<i>Hayat Shaheed Teaching Hospital, University of Peshawar</i> Resident, Department of Surgery	Peshawar, Pakistan
12/91-5/92	<i>Hayat Shaheed Teaching Hospital, University of Peshawar</i> Resident, Department of Radiology	Peshawar, Pakistan

## **INTRAOPERATIVE MONITORING (IONM) EXPERIENCE**

[Last updated: Jan 22, 2026]

<b>1999 - 2026</b>	<u>Neuro Surgeries Monitored</u>	<u>Cases</u>
	Acoustic neuroma	390
	Vestibular neurectomy	10
	Other CPA lesion	255
	Brainstem lesion	110
	Skull base lesion	185
	Intracranial aneurysm	229
	Cortical lesions/Tumors	1700
	Language Mapping	715
	Chiari malformation	55
	Spinal cord lesion	205
	Tethered cord	1211

Cauda equina lesion	205
Brachial plexus	75
Rhizotomy	320
Peripheral nerve	105
Spinal stimulator implants	212
Cortical stimulator implants	32
Epilepsy surgeries	130
Genitofemoral Neurectomy	001
<b>Orthopedic Surgeries Monitored</b>	<b>Cases</b>
ACDF	524
PCF	220
ALIF	50
PLIF	596
DLIF /XLIF	92
Scoliosis	2780
Total Hip replacement	041
Hip arthroscopy	22
Knee	02
Periacetabular osteotomy	12
Tibial/Fibular Osteotomy	20
Sacro Iliac Joint Screws	61
<b>ENT Surgeries Monitored</b>	<b>Cases</b>
Thyroidectomy	487
Parotidectomy	210
Tympanoplasty	062
Radical neck dissection	06
Cochlear Implants	15
Mastoid Tumor	02
<b>Vascular Surgeries Monitored</b>	<b>Cases</b>
Carotid Endarterectomy	1245
Thoraco-abdominal aneurysm	08
CABG	04
External Carotid-Internal Carotid bypasses	006
<b>Interventional Neuro Radiological (INR) procedures monitored</b>	<b>Cases</b>
Intracranial aneurysm coils	350
Intracranial AVM	276
Spinal AVM	049
Carotid Stents	058
<b>Clinical Procedures</b>	<b>Cases</b>
WADA	028
Burst Suppression	200
Long term EEG	3245
Clinical EPs	2150
<b>Urological Procedures</b>	<b>Cases</b>
Psoas Mass Resection	001

---

<b>Total</b>	<b>18000+</b>
--------------	---------------

## **TEACHING**

---

### ***Areas of expertise***

Intraoperative Neurophysiological Monitoring (IONM), electroencephalography (EEG), ICU monitoring, brain death assessments, clinical evoked potentials, research, onsite training, Electrocorticography, epilepsy monitoring units (EMU), language mapping, cortical and functional mapping, and transcranial Doppler (TCD).

**CNIM** (Certification in Intraoperative Neurophysiological Monitoring) exam preparation courses.

**D.ABNM** (Diplomate American Board of Neurophysiological Monitoring) exam preparation courses.

### **Postdoctoral Fellowship in Surgical Neurophysiology**

(Online Six-month training program for Physicians/Surgeons)

- Group #1: Jun-Dec 2020
- Group #2: Jan-Jul 2021
- Group #3: Jun-Dec 2021
- Group #4: Jan-Jul 2022
- Group #5: Jun-Dec 2022
- Group #6: Jan-Jul 2023
- Group #7: Jul-Dec 2023
- Group #8: Jan-Jul 2024
- Group #9: Jun-Dec 2024
- Group #10: Jan-Jul 2025
- Group #11: Jun-Dec 2025
- Group #12: Jan-Jul 2026

### **Diploma in Surgical Neurophysiology**

(Online Six-month training program for Neurophysiology Technologists)

- Group #1: Jun-Dec 2020
- Group #2: Jan-Jul 2021
- Group #3: Jun-Dec 2021
- Group #4: Jan-Jul 2022
- Group #5: Jun-Dec 2022
- Group #6: Jan-Jul 2023
- Group #7: Jul-Dec 2023
- Group #8: Jan-Jul 2024
- Group #9: Jun-Dec 2024
- Group #10: Jan-Jul 2025
- Group #11: Jun-Dec 2025
- Group #12: Jan-Jul 2026

## Industry Internship Program: Supervisor & Research Advisor

### The University of Texas at Dallas Interns:

- 1) Chen Wang (Aug-Dec'18)
  - Kathryn Overzet, Chen Wang, Faisal Riaz Jahangiri. "The incidence of Positioning-Related Intraoperative Neurophysiological Monitoring (IONM) Changes A Review of 5894 Surgeries". *EC Neurology* 11.1 (2019): 46-54
- 2) Courtney Trausch (Aug' 18-May'19)
  - Faisal R. Jahangiri, Justin W. Silverstein, Courtney Trausch, Sami Al Eissa, Zachariah M. George, Hargovind DeWal & Izabela Tarasiewicz (2019) Motor Evoked Potential Recordings from the Urethral Sphincter Muscles (USMEPs) during Spine Surgeries, *The Neurodiagnostic Journal*, 59:1, 34-44, DOI: 10.1080/21646821.2019.1572375
  - Faisal R Jahangiri, Courtney Trausch. "Utilizing Longer Intramuscular Needle Pair Electrodes: What are we Missing in Our Intraoperative Muscle Recordings?". *EC Neurology* 11.4 (2019): 288-294.
- 3) Derrick Mora (Jan-May'19)

Kathryn Overzet, Derrick Mora, Eloise Faust, Lindsay Krisko, Dyanne Welch & Faisal R. Jahangiri (2021) Distal Stimulation Site at the Medial Tibia for Saphenous Nerve Somatosensory Evoked Potentials (DSn-SSEPs) in Lateral Lumbar Spine Procedures, *The Neurodiagnostic Journal*, 61:2, 72-85, DOI: 10.1080/21646821.2021.1903277
- 4) Jerril Jacob (Jan-Dec'19 )
- 5) Rabehah Asdi (Jan' 19-May'21)
  - Jahangiri FR, Asdi RA, Tarasiewicz I, et al. (June 10, 2019). Intraoperative Triggered Electromyography Recordings from the External Urethral Sphincter Muscles During Spine Surgeries. *Cureus* 11(6): e4867. doi:10.7759/cureus.4867.
  - Jahangiri FR, Ilyas S, Asdi R, Escobedo E, Seals E. Protecting the Visual Pathways During Optic Nerve Surgery Using Intraoperative Visual Evoked Potentials (VEP)". *Acta Scientific Clinical Case Reports* 1.2 (2020): 01-06.
  - Jahangiri F R, Azam A, Asdi R A, Ahmad I, Basha S I. (Sep. 2020) Intraoperative Neurophysiological Monitoring During Trigeminal Schwannoma Surgery. *Cureus* (in Print): e. doi:10.7759/cureus.
- 6) Jacqueline Perez (May-Dec'19)
- 7) Reagan Knightstep (Jan-May'20)
- 8) Elizabeth Ekvall (Jan-May'21)
  - Faisal R Jahangiri, Katharine Pautler, Elizabeth Ekvall, Meredith Tucker, Angela Goodlin, and Afia Islam. "Intraoperative Neurophysiological Monitoring for Brainstem Tumor Surgeries". *EC Neurology* 12.11 (2020): 80-87.
- 9) Gabrielle Bennett (Jan-Dec'20)
  - Jahangiri F R, Pautler K, Watters K, et al. (March 19, 2020) Mapping of the Somatosensory Cortex. *Cureus* 12(3): e7332. doi:10.7759/cureus.7332
- 10) Fauziya Fareed (Jan-Aug'20)
- 11) Katharine Pautler (Mar-Dec'20)
  - Jahangiri F R, Pautler K, Watters K, et al. (March 19, 2020) Mapping of the Somatosensory Cortex. *Cureus* 12(3): e7332. doi:10.7759/cureus.7332
  - Faisal R Jahangiri, Katharine Pautler, Elizabeth Ekvall, Meredith Tucker, Angela Goodlin and Afia Islam. "Intraoperative Neurophysiological Monitoring for Brainstem Tumor Surgeries". *EC Neurology* 12.11 (2020): 80-87.
- 12) Angela Goodlin (Jun '20-May'21)
  - Faisal R Jahangiri, Katharine Pautler, Elizabeth Ekvall, Meredith Tucker, Angela Goodlin and Afia Islam. "Intraoperative Neurophysiological Monitoring for Brainstem Tumor Surgeries". *EC Neurology* 12.11 (2020): 80-87.
- 13) Hiral Gorasia (Aug '20-May'21)
- 14) Haley Puryear (Aug'20-May'21)

- 15) Sarah Sharifi (Oct'20-May'21)
  - Jahangiri FR, Huckabey M, Baloney N, Sharifi S, Liang M, Porwal C (2021) IONM Uses During Carotid Surgeries.
- 16) Tal Allouche (Jan-Aug'21)
  - Bennett, Gabrielle, Rabehah A. Asdi, Hiral Gorasia, Tal Allouche, Suen K. Chun, and **Faisal R. Jahangiri**. "Dorsal Root Rhizotomy for Cerebral Palsy." Chapter. In *Introduction to Neurophysiology*, 155-162. Dubuque, IA: Kendall Hunt Publishing, 2023.
  - Jahangiri, F. R., Khan, A., Allouche, T., Gorasia, H., Mesfin, Y., & Bathurst, N. (2023). Spinal Cord Mapping with Somatosensory Evoked Potentials (SSEP) in Cervical and Thoracic Surgeries. *J of Neurophysiological Monitoring*, 1(1), 37-43. doi:10.5281/zenodo.10207942.
- 17) Nicholas A. Bathurst (Jan-May'21)
- 18) John Moorman (Jan- May'21)
  - Jahangiri FR, Dobariya A, Kruse A, Kalyta O, Moorman JD (September 25, 2020) Mapping of the Motor Cortex. *Cureus* 12(9): e10645. doi:10.7759/cureus.10645.
- 19) Melanie Piedra (Mar-May'21)
- 20) Naomi Baloney (Jun-Dec'21)
  - Jahangiri FR, Huckabey M, Baloney N, Sharifi S, Liang M, Porwal C (2021) IONM Uses During Carotid Surgeries.
- 21) Seniha Yildirim (Aug'21-Dec'22)
  - Jahangiri FR, Blake I, Lopez J, Puryear H, Williams K, Yildirim S (2021) Utility of IONM in Thyroid Surgeries.
  - Jahangiri FR, Appel E, Ezeji A, Yildirim (2021) Sensory Mapping of the Brain: Median vs Tibial Nerve.
- 22) Misty Huckabey (Sep'21-Dec'23)
  - Jahangiri FR, Huckabey M, Baloney N, Sharifi S, Liang M, Porwal C (2021) IONM Uses During Carotid Surgeries.
  - Jahangiri FR, Huckabey M, Blaylock J, Smith, HK (May 2022) Left Parietal Brain Metastasis Proximate to Motor Strip: Integration of Intraoperative Neurophysiological Monitoring (IONM) and Navigated Transcranial Magnetic Stimulation (nTMS) Data. *ASNM Annual Meeting*.
- 23) Shruthi Ravikumar (Sep'21-May'22)
- 24) Franz Mallalieu (Sep'21-May'23)
- 25) Nwasinachi Ezeji (Sep'21-May'22)
- 26) Shabab Sami Kabir (Jan '22-Jun '23)
  - Jahangiri FR, Liang M, Kabir S, Khowash O (2021) Motor Mapping of the Brain: Taniguchi vs Penfield.
- 27) Marie Liang (Jan '22-Current)
  - Jahangiri FR, Huckabey M, Baloney N, Sharifi S, Liang M, Porwal C (2021) IONM Uses During Carotid Surgeries.
  - Jahangiri FR, Liang M, Kabir S, Khowash O (2021) Motor Mapping of the Brain: Taniguchi vs Penfield.
- 28) Anwara Khan (Jan-Dec '22)
  - Memon, U., Umair, M., Khan, A., & Jahangiri, F. R. (2023). A Meta-analysis of Quantitative Electroencephalography (EEG) in Insomnia Sleep Disorder. *J of Neurophysiological Monitoring*, 1(2), 20–27. <https://doi.org/10.5281/zenodo.8118257>
- 29) Tuba Shiwani (Jun'22-Dec'23)
- 30) Yasaman Hooshmandi (Jun'22-May'23)
- 31) Cesia Alvarez (Aug'22-Jun'25)
  - Alvarez, C. M., Farhan, R., & Jahangiri, F. R. (2023). Benefits of Intraoperative Neurophysiological Monitoring (IONM) for the Localization, Mapping, and Resection of Tumors in the Fourth Ventricle: A Literature Review. *J of Neurophysiological Monitoring*, 1(1), 22–36. doi: 10.5281/zenodo.10207910.
- 32) Angel Voon (Jan'23-Jan'24)
- 33) Swati Chakarvarty (Jan'23-Dec'23)
- 34) Joanna Day (Jan '23-Dec'23)
- 35) Mathew Solomon (Jan-Aug'23)
- 36) Danny Gruber (Jan-Dec'23)
  - Day, J., Saldino, J., Singh, M., & Gruber, D. (2023). Femoral Nerve Monitoring During Lateral Spine Surgery. *J of Neurophysiological Monitoring*, 1(2), 37–48. <https://doi.org/10.5281/zenodo.10215106>

37) Mahek Mumtaz (Sep'23-Current)

- Sam, A., Parapperi, R., Isa, U., Mumtaz, M., & Jahangiri, F. R. (2024). The Advantages of Using Intraoperative Neurophysiological Monitoring in Hip Surgeries: A Meta-Analysis. *J of Neurophysiological Monitoring*, 2(2), 46–59. <https://doi.org/10.5281/zenodo.11152081>

38) Rishab Parapperi (Sep'23-Dec'25t)

- Sam, A., Parapperi, R., Isa, U., Mumtaz, M., & Jahangiri, F. R. (2024). The Advantages of Using Intraoperative Neurophysiological Monitoring in Hip Surgeries: A Meta-Analysis. *J of Neurophysiological Monitoring*, 2(2), 46–59. <https://doi.org/10.5281/zenodo.11152081>

39) Lily Nguyen (Nov'23-Dec'25)

40) Sam M. Ayyoub (Dec'23-Dec'25)

- Sam, A., Parapperi, R., Isa, U., Mumtaz, M., & Jahangiri, F. R. (2024). The Advantages of Using Intraoperative Neurophysiological Monitoring in Hip Surgeries: A Meta-Analysis. *J of Neurophysiological Monitoring*, 2(2), 46–59. <https://doi.org/10.5281/zenodo.11152081>

41) Fadilah Moohiuddin (Jan'24-Dec'25)

42) Huma Aziz (Jan '24-Dec'25)

- Jahangiri, F. R., De Curtis, A., Workneh, E., Aziz, H., & Murimbechi, Z. (2024). Efficacy of Sugammadex as a Reversal with an Optimized Train of Four Stimulation Parameters. *J of Neurophysiological Monitoring*, 2(3), 45–62. <https://doi.org/10.5281/zenodo.13945416>
- Aziz, H., & Jahangiri, F. R. (2024). The Indispensable Role of Intraoperative Neurophysiological Monitoring in Tethered Cord Release Surgeries. *J of Neurophysiological Monitoring*, 2(3), 63–66. <https://doi.org/10.5281/zenodo.13952961>

43) Talha Ahmed Osmani (Jan'24-Current)

44) Sandra N. Cuenca (Mar'24-May'25)

45) Mohamed Jibrán (Jun'24-Dec'25)

46) Marialena Garza (May'24-Jun'25)

47) Erica S. Nay (May'24-Dec'25)

48) Zainab Gangardiwala (Jun'24-Current)

- Gangardiwala, Z. A. (2024). The Role of Electroencephalography in the Differential Diagnosis of Dementia. *J of Neurophysiological Monitoring*, 2(1), 58–62. <https://doi.org/10.5281/zenodo.10578252>

49) Sabrina Uy Tesy (Jun'24-Dec'25)

- Anees, S., Nah, E., Chung, S., Ezhil, V., Khan, I., Mohiuddin, F., Tesy, S. U., & Jahangiri, F. R. (2025). Evaluating the Effectiveness of Intraoperative Neuromonitoring Modalities in Spinal Dysraphism Surgeries: A Systematic Review. *J of Neurophysiological Monitoring*, 3(1), 61–92. <https://doi.org/10.5281/zenodo.14786910>

50) Charmi Modi (Jun'24-Current)

51) Abir Faisal (Jul'24-Current)

52) Zvikomborero Murimbechi (Aug'24-Current)

53) Shreya Mehra (Sep'24-Current)

54) Fardis Mohiuddin (Sep'24-Current)

- Anees, S., Nah, E., Chung, S., Ezhil, V., Khan, I., Mohiuddin, F., Tesy, S. U., & Jahangiri, F. R. (2025). Evaluating the Effectiveness of Intraoperative Neuromonitoring Modalities in Spinal Dysraphism Surgeries: A Systematic Review. *J of Neurophysiological Monitoring*, 3(1), 61–92. <https://doi.org/10.5281/zenodo.14786910>

55) Praniya Jakkamsetti (Oct'24-Current)

56) Mehak Satsangi (Oct'24-Current)

- Satsangi, M., Iduh, C., & Jahangiri, F. R. (2025). Literature Review of Subcortical Mapping Techniques in Glioblastoma Surgeries. *J of Neurophysiological Monitoring*, 3(1), 8–27. <https://doi.org/10.5281/zenodo.14420746>

57) Emma R. Siddiqui (Oct'24-Dec'25)

58) Pranjal Khela ('24-Current)

59) Zohayr Salahuddin (Jan'25-Current)

60) Tushar M. Sunkum (Jan'25-Current)

61) Aisha M. Ali (Feb'25-Current)]

62) Sarthak A. Bansal (Mar '25-Dec '25)

63) Arshiya Shah (Jun'25-Current)

64) Hritik Arasu (Jun'25-Current)

65) Rutaba Ali (Jun'25-Current)

66) Nora Arefin (Oct'25-Current)

67) Dhyaan Bannur (Oct'25-Current)

68) Ghada Abuagala (Oct'25-Current)

69) Colby Weikert (Nov'25-Current)

- 70) Aamena Baig (Nov'25-Current)
- 71) Ayesha Baig (Nov'25-Current)
- 72) Ayesha Nasir (Nov'25-Current)
- 73) Huer Alass (Jan'26-Current)

### **The University of Texas at Dallas Research Assistant:**

- 1) Xinyi Qin (Aug' 20-May'21)
  - Jahangiri FR, Ilyas S, Asdi R, Escobedo E, Seals E. Protecting the Visual Pathways During Optic Nerve Surgery Using Intraoperative Visual Evoked Potentials (VEP)". *Acta Scientific Clinical Case Reports* 1.2 (2020): 01-06.

### **Other Colleges Interns:**

- 1) Ahmed Malik (Aug'24-Current) - University of Texas at Arlington
- 2) Yoshua Kalluvilayil (Aug'24- Current) – Texas A&M, College Station
- 3) Joshua Botros (Jan'25-Current) - Texas A&M, College Station

### **Post-Doctoral Interns:**

- Sidra Ilyas, MD (Jan'19-May'20)
  - Jahangiri FR, Ilyas S, Asdi R, Escobedo E, Seals E. Protecting the Visual Pathways During Optic Nerve Surgery Using Intraoperative Visual Evoked Potentials (VEP)". *Acta Scientific Clinical Case Reports* 1.2 (2020): 01-06.
- Nida Qadir, MD (May'19-May'20)
  - Faisal R. Jahangiri, Nida Qadir, James Blaylock, Leah Cronic-Solano & Jason Ramsey (2019) Waveform Window #46: Radial Nerve SSEP (Rn-SSEP): Is It Reliable?. *The Neurodiagnostic Journal*, DOI: 10.1080/21646821.2019.1680085.
  - Jahangiri FR, Blaylock J, Qadir N, Ramsey JA. Multimodality Intraoperative Neurophysiological Monitoring (IONM) During Shoulder Surgeries. *Neurodiagn J.* 2020 Apr 16:1-17. doi: 10.1080/21646821.2020.1743952.
- Abeera Azam, MD (Jan' 20-Jan'21)
  - Jahangiri F R, Azam A, Asdi R A, Ahmad I, Basha S I. (Sep. 2020) Intraoperative Neurophysiological Monitoring During Trigeminal Schwannoma Surgery. *Cureus* (in Print): e. doi:10.7759/cureus.
- Hira Pervez, MD (May'20-Mar'21)
- Asiya Qureshi, MD (Sep'21-Jan'22)
- Muhammad Umair, MD (Jan'22-Jun'24)
  - Umair, M., Asghar, M. R., & Jahangiri, F. R. (2023). The Frequency of Motor Evoked Potential Alerts During Lumbar Spinal Surgeries. *J of Neurophysiological Monitoring*, 1(1), 13–21. <https://doi.org/10.5281/zenodo.10206767>
- Roshan Asghar, MD (Jan'22-Current)
  - Umair, M., Asghar, M. R., & Jahangiri, F. R. (2023). The Frequency of Motor Evoked Potential Alerts During Lumbar Spinal Surgeries. *J of Neurophysiological Monitoring*, 1(1), 13–21. <https://doi.org/10.5281/zenodo.10206767>
- Muhammad Mushhood-ur-Reham (Jan'22-Jun'24)
- Neha Kamran (Jun'22-Feb'24)
  - Kamran, N., Khan, M. I., Hasnain, S., Jahangiri, R. H., Qayyum, A., Muhammad, A., & Jahangiri, F. R. (2024). Multimodality Intraoperative Neurophysiological Monitoring (IONM) with Selective Dorsal Root Rhizotomy For patients with Cerebral Palsy. *J of Neurophysiological Monitoring*, 2(3), 31–44. <https://doi.org/10.5281/zenodo.13927264>
- Muhammad Asad Sultan (Jul'22-Jun'23)
- Rida Farhan (Oct'22-Current)
  - Alvarez, C. M., Farhan, R., & Jahangiri, F. R. (2023). Benefits of Intraoperative Neurophysiological Monitoring (IONM) for the Localization, Mapping, and Resection of Tumors in the Fourth Ventricle: A Literature Review. *J of Neurophysiological Monitoring*, 1(1), 22–36. <https://doi.org/10.5281/zenodo.10207910>.
- Syed Muhammad Owais (Feb'23-Dec'23)
- Unaiza Memon (Jan'23-Current)
  - Memon, U., Umair, M., Khan, A., & Jahangiri, F. R. (2023). A Meta-analysis of Quantitative Electroencephalography (EEG) in Insomnia Sleep Disorder. *J of Neurophysiological Monitoring*, 1(2), 20–27. <https://doi.org/10.5281/zenodo.8118257>
- Wasiq Nadeem (Apr'23-May'24)
  - Nadeem, W., Khattak, W. H., Jahangiri, R. H., Asad, H., Farooq, L., Blaylock, J., Cronic-Solano, L., Garza, R. R., Fell, W. R., Basha, I. S., & Jahangiri, F. R. (2023). Facial Nerve Monitoring During Parotidectomy: A Case Series. *J of Neurophysiological Monitoring*, 1(1), 1–12. <https://doi.org/10.5281/zenodo.8206378>.

- Nadeem, W., Qayum, A., Jahangiri, R. H., Hasnain, S., Mumtaz, M., & Jahangiri, F. R. (2023). Exploring the Efficacy of Hypoglossal Nerve Monitoring and Stimulation in Treating Obstructive Sleep Apnea. *J of Neurophysiological Monitoring*, 1(2), 12–19. <https://doi.org/10.5281/zenodo.10214346>.
- Nadeem, W. (2023). Intraoperative Neurophysiological Monitoring for Cochlear Implant Surgeries. *J of Neurophysiological Monitoring*, 1(2), 43–46. Retrieved from <https://jneurophysiologicalmonitoring.com/index.php/pub/article/view/26>
- Nadeem, W., & Jahangiri, F. R. (2023). Cochlear Implantation and Intraoperative Neurophysiological Monitoring of the Facial Nerve. *J of Neurophysiological Monitoring*, 2(1), 1–7. <https://doi.org/10.5281/zenodo.10205916>.
- Murtaza Khan (Apr'23-Feb'24)
- Sarah Jamil (May 23-Feb'24)
- Museera Irshad Khan (Feb'24-Current)
  - Jahangiri, F. R., Jahangiri, R. H., Khan, A., & Khan, M. I. (2024). Intraoperative Neurophysiological Monitoring (IONM) During Peripheral Nerve Hand Surgeries. *J of Neurophysiological Monitoring*, 3(1), 28–35. <https://doi.org/10.5281/zenodo.14426668>
  - Jahangiri, F. R., Alzahrany, M., Aziz, H., Nguyen, L., Qayum, A., Mohamed, J., Gangardiwala, Z., & Ejaz, M. U. (2024). Enhancing the Effectiveness of Monitoring the Robust Bulbocavernosus Reflex in Cauda Equina Surgeries: Harnessing Machine Learning to Decode the Complexity of Stimulation Parameters. *J of Neurophysiological Monitoring*, 3(1), 36–60. <https://doi.org/10.5281/zenodo.14516690>

## **Medical School Interns:**

- Anum Qayum (Feb'22-Current) – Khyber Medical College, Peshawar, Pakistan.
- Hooria Asad (Feb'22-Current) – Khyber Medical College, Peshawar, Pakistan.
- Laila Farooq (Feb'22-Current) – Khyber Medical College, Peshawar, Pakistan.
- Rafia H. Jahangiri (Feb'22-Current) – Khyber Medical College, Peshawar, Pakistan.
  - Jahangiri F R, Jahangiri R H, Asad H, et al. (October 05, 2022) Scoliosis Corrective Surgery With Continuous Intraoperative Neurophysiological Monitoring (IONM). *Cureus* 14(10): e29958. doi:10.7759/cureus.29958.
  - Nadeem, W., Khattak, W. H., Jahangiri, R. H., Asad, H., Farooq, L., Blaylock, J., Cronce-Solano, L., Garza, R. R., Fell, W. R., Basha, I. S., & Jahangiri, F. R. (2023). Facial Nerve Monitoring During Parotidectomy: A Case Series. *J of Neurophysiological Monitoring*, 1(1), 1–12. <https://doi.org/10.5281/zenodo.8206378>.
  - Nadeem, W., Qayum, A., Jahangiri, R. H., Hasnain, S., Mumtaz, M., & Jahangiri, F. R. (2023). Exploring the Efficacy of Hypoglossal Nerve Monitoring and Stimulation in Treating Obstructive Sleep Apnea. *J of Neurophysiological Monitoring*, 1(2), 12–19. <https://doi.org/10.5281/zenodo.10214346>.
  - Jahangiri, F. R., Jahangiri, R. H., Khan, A., & Khan, M. I. (2024). Intraoperative Neurophysiological Monitoring (IONM) During Peripheral Nerve Hand Surgeries. *J of Neurophysiological Monitoring*, 3(1), 28–35. <https://doi.org/10.5281/zenodo.14426668>
- Samar Hasnain (Aug'22-Current) – Khyber Medical College, Peshawar, Pakistan.
- Wadana Khattak (Aug'22-Current) – Khyber Medical College, Peshawar, Pakistan.
- Ammar Muhammad (Jun'23-Current)
- Vaeza Qureshi (Jun'23-Current) – Khyber Medical College, Peshawar, Pakistan.
  - Qureshi, V., Gul, F., & Jahangiri, F. R. (2023). Stroke Incidence in Cerebral Aspergillosis: A meta-analysis. *J of Neurophysiological Monitoring*, 2(1), 8–17. <https://doi.org/10.5281/zenodo.10324425>.
- Farhana Gul (Jun'23-Current) – Khyber Medical College, Peshawar, Pakistan.
  - Qureshi, V., Gul, F., & Jahangiri, F. R. (2023). Stroke Incidence in Cerebral Aspergillosis: A meta-analysis. *J of Neurophysiological Monitoring*, 2(1), 8–17. <https://doi.org/10.5281/zenodo.10324425>.
- Aisha Khan (Jun'23-Current) - Arkansas College of Osteopathic Medicine
  - Jahangiri, F. R., Khan, A., Allouche, T., Gorasia, H., Mesfin, Y., & Bathurst, N. (2023). Spinal Cord Mapping with Somatosensory Evoked Potentials (SSEP) in Cervical and Thoracic Surgeries. *J of Neurophysiological Monitoring*, 1(1), 37–43. doi:10.5281/zenodo.10207942.
  - Jahangiri, F. R., Jahangiri, R. H., Khan, A., & Khan, M. I. (2024). Intraoperative Neurophysiological Monitoring (IONM) During Peripheral Nerve Hand Surgeries. *J of Neurophysiological Monitoring*, 3(1), 28–35. <https://doi.org/10.5281/zenodo.14426668>.
- Syed Muhmmad Habib (Jan'24-Current)
- Muhammad Usaid Ejaz (Feb '24-Current)
- Aamina Sher (May'23-Current) – Khyber Medical College, Peshawar, Pakistan.
- Samreen Anees (Jul'24-Current) - Idaho College of Osteopathic Medicine, Meridian, Idaho
  - Anees, S., Nah, E., Chung, S., Ezhil, V., Khan, I., Mohiuddin, F., Tesy, S. U., & Jahangiri, F. R. (2025). Evaluating the Effectiveness of Intraoperative Neuromonitoring Modalities in Spinal Dysraphism Surgeries: A Systematic Review. *J of Neurophysiological Monitoring*, 3(1), 61–92. <https://doi.org/10.5281/zenodo.14786910>
- Vikram Ezhil (Jul'24-Current) - Texas Tech Health Sciences Center, El Paso, Texas.
  - Anees, S., Nah, E., Chung, S., Ezhil, V., Khan, I., Mohiuddin, F., Tesy, S. U., & Jahangiri, F. R. (2025). Evaluating the Effectiveness of Intraoperative Neuromonitoring Modalities in Spinal Dysraphism Surgeries: A Systematic Review. *J of Neurophysiological Monitoring*, 3(1), 61–92. <https://doi.org/10.5281/zenodo.14786910>
- Seoyeon Chung (Sep'24-Current) – Sungkyunkwan University, Seoul, South Korea

### **Undergrad Interns:**

- 1) Haniya Asad (Mar-Aug'23)

### **High School Interns:**

- 1) Isabella Scopin Charnet, Wakeland High School, Frisco (Jan-Apr'23)
- 2) Angel Lopez (Aug'23-Mar'24)
- 3) Soha Ahmed, Wakeland High School, Frisco (Aug'23-Aug'25)
- 4) Fatima Aziz, Muraqaba School/Collin College (Dec'25-Current)

### ***Courses Taught at the University of Texas at Dallas:***

Fall	ACN 6375: IONM Special Topics: Mapping of the Spinal Cord
Fall	ACN 6v71: Industry Internship
Fall	NSC 4320: Sleep & Sleep Disorders
Fall	NSC 4351: Medical Neuroscience
Fall	NSC 4382: Neurobiology of Emotions
Fall	NSC 4v96: Teaching Internship
Fall	NSC 4v98: Directed Research
Fall	NSC 4v99: Independent Study
Spring	ACN 6374: IONM Part II
Spring	ACN 6375: IONM Special Topics: Mapping of the Brain
Summer	ACN 6v71: Industry Internship
Spring	NSC 4382: Neurobiology of Emotions
Spring	NSC 4383: Human Neurophysiology Lab
Spring	NSC 4v96: Teaching Internship
Spring	NSC 4v98: Directed Research
Spring	NSC 4v99: Independent Study
Summer	ACN 7372: Seminar in Neuroscience – EEG & Electrocorticography
Summer	ACN 7372: Seminar in Neuroscience – Evoked Potentials

Summer	ACN 6v71: Industry Internship
Summer	NSC 4320: Sleep & Sleep Disorders
Summer	NSC 4382: Neurobiology of Emotions
Summer	NSC 4v96: Teaching Internship
Summer	NSC 4v98: Directed Research
Summer	NSC 4v99: Independent Study

***Courses Taught Nationally & Internationally:***

Dec 2024	IONM Pre-Conference Workshop - Course Director Saudi Spine Society (SSS) Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	<i>Jeddah, KSA</i>
Nov 2025	IONM Pre-Conference Workshop - Course Director Human Cadaver Workshop, Pelvic Floor monitoring	<i>Belo Horizonte, Brazil</i>
Nov 2024	IONM Conference Workshop - Course Director	<i>London, UK</i>
Nov 2023	IONM Pre-Conference Workshop - Course Director Saudi Spine Society (SSS) Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	<i>Riyadh, KSA</i>
Fall 2023	IONM Special Topics: Mapping of the Spinal Cord (ACN 6375) Special Topics in Applied Cognition & Neuroscience School of Behavioral and Brain Sciences, The University of Texas at Dallas	<i>Richardson, TX, USA</i>
Fall 2023	Seminar in Neuroscience: Fundamentals of EEG/ECOG(ACN7372) School of Behavioral and Brain Sciences, The University of Texas at Dallas	<i>Richardson, TX, USA</i>
Nov 2023	IONM Pre-Conference Workshop - Course Director Saudi Spine Society (SSS) Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	<i>Riyadh, KSA</i>
May 2023	Conference Chair, ASNM Annual Meeting American Society of Neurophysiological Monitoring (ASNM) 2021	<i>Dallas, TX, USA</i>
Jan 2023	Intraoperative Neuromonitoring in Spine Surgery Department of Spine Surgery, Khyber Teaching Hospital	<i>Peshawar, Pakistan</i>
Jan 2023	Live Neuromonitoring Workshop in Spine Surgery Department of Spine Surgery, Hayatabad Medical Complex	<i>Peshawar, Pakistan</i>

Dec 2023	IONM Pre-Conference Workshop - Course Director Saudi Spine Society (SSS) Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	<i>Jeddah, KSA</i>
May 2021	Conference Chair, 30 <sup>th</sup> Annual Meeting American Society of Neurophysiological Monitoring (ASNM) 2021	<i>Virtual, USA</i>
Mar 2021	IONM Pre-Conference Workshop - Course Director Saudi Association of Neurological Surgery (SANS) Intraoperative Neurophysiological Monitoring (IONM) for Neurosurgeries	<i>Virtual, KSA</i>
Jan 2021	Course Director Axis Annual IONM Workshop and Symposium	<i>Richardson, TX, USA</i>
Nov 2020	IONM Pre-Conference Workshop - Course Director / Chair Saudi Spine Society 3 <sup>rd</sup> Annual Meeting Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	<i>Virtual, KSA</i>
Jan 2020	Course Director Axis Annual IONM Workshop and Seminar	<i>Richardson, TX, USA</i>
Fall 2019	Advance IONM – Mapping of the Brain Special Topics in Applied Cognition & Neuroscience School of Behavioral and Brain Sciences, The University of Texas at Dallas	<i>Richardson, TX, USA</i>
Sep 2019	Conference Chair American Society of Neurophysiological Monitoring (ASNM) 2019 Fall Symposium	<i>Boston, MA, USA</i>
Jan 2019	Course Director Axis Annual IONM Workshop and Seminar	<i>Richardson, TX, USA</i>
2003-Current	D. ABNM Training Mentoring and training of senior neurophysiologists for Diplomate examination	<i>USA</i>
2000-Current	CNIM Training Mentoring and training of senior neurophysiologists for IONM Certification	<i>USA</i>
Nov 2018	IONM Pre-Conference Workshop - Course Director / Chair Saudi Spine Society 2 <sup>nd</sup> Annual Meeting Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	<i>Jeddah, KSA</i>
Feb 2018	Conference Chair American Society of Neurophysiological Monitoring (ASNM) 2018 Annual Meeting	<i>Orlando, FL, USA</i>
Dec 2017	IONM Pre-Conference Workshop - Course Director / Chair Saudi Spine Society 1 <sup>st</sup> Annual Meeting Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	<i>Riyadh, KSA</i>
2017	ASET Continuing Education: 45 ACE Credits Course Neuro Alert Monitoring: CNIM Prep course	<i>White Plains, NY, USA</i>

Dec 2017	IONM Pre-Conference Workshop - Course Director / Chair Saudi Spine Society 1 <sup>st</sup> Annual Meeting Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	Riyadh, KSA
Mar 2017	IONM Spine Workshop - Course Director / Chair Saudi Association of Neurological Surgery (SANS) Intraoperative Neurophysiological Monitoring (IONM) for Neurosurgeries	Riyadh, KSA
Mar 2016	POA Spine Forum: Second International IONM Workshop Basic Intraoperative Neurophysiological Monitoring (IONM) Hands-on Workshop for Spine Surgeons	Rawalpindi, Pakistan
Feb-Mar 2016	IONM Workshop Course Director / Chair Intraoperative Neurophysiological Monitoring (IONM) for Neurosurgeries 10 <sup>th</sup> Saudi Association of Neurological Surgery (SANS) Annual Meeting	Riyadh, KSA
Nov 2015	IONM Workshop Neurophysiological Monitoring in Spine Surgeries 9 <sup>th</sup> APCSS and 1 <sup>st</sup> ASA Conjoint Meeting Asia Pacific Cervical Spine Society (APCSS) & 1 <sup>st</sup> Arab Spine Academy (ASA) Meeting	Dubai, UAE
Oct 2015	IONM Course Director 2015 Annual Meeting, Intraoperative Neurophysiological Monitoring (IONM) Course Co-Sponsored by: Southern Society of Neurophysiological Monitoring (SSET) & Texas Neurodiagnostic Society	Dallas, TX, USA
2014-16	Neurology, School of Medicine King Saud Bin Abdulaziz University for Health Sciences & Postgraduate Training Center	Riyadh, KSA
Mar 2015	POA Spine Forum: First International IONM Workshop Basic Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	Rawalpindi, Pakistan
Mar 2015	IONM Workshop Course Director / Chair Intraoperative Neurophysiological Monitoring & Navigation for Neurosurgeries 9 <sup>th</sup> Saudi Association of Neurological Surgery (SANS) Annual Meeting	Dammam, KSA
Dec 2014	IONM Workshop Course Director / Chair Spine Update 2014: Toward Standardized Spine Surgery Practice Basics of IONM for Spine Surgeons	Riyadh, KSA
Nov 2014	Clinical Neurophysiology Workshop 4 <sup>th</sup> Annual Saudi Epilepsy Society Conference 1 <sup>st</sup> Saudi International Stereotactic & Functional Neurosurgery Conference	Riyadh, KSA
May 2014	Traumatic Brain Injury (TBI) Workshop EEG / TCD/ Neurophysiological Monitoring for TBI King Abdulaziz Medical City, National Guard Health Affairs King Saud Bin Abdulaziz University for Health Sciences & Postgraduate Training Center	Riyadh, KSA

Nov 2013	IONM Workshop Neurophysiological Monitoring during Vascular Surgeries 21 <sup>st</sup> Saudi Neurology Society Annual Meeting	Riyadh, KSA
Sept 2013	IONM Course Director / Organizer 53 <sup>rd</sup> Annual Meeting, Southern Society of Neurophysiological Monitoring (SSET) Intraoperative Neurophysiological Monitoring (IONM) Course	Savannah, GA, USA
Sept 2012	IONM Course Director 52 <sup>nd</sup> Annual Meeting, Southern Society of Neurophysiological Monitoring (SSET) Intraoperative Neurophysiological Monitoring (IONM) Course	Orlando, FL, USA
Sept 2012	CNIM Exam Preparation Workshop 52 <sup>nd</sup> Annual Meeting, Southern Society of Neurophysiological Monitoring (SSET) Intraoperative Neurophysiological Monitoring Course	Orlando, FL, USA
Feb 2012	Neurosciences Critical Care” Course & Workshop Neurophysiological Monitoring of the CNS King Abdulaziz Medical City, National Guard Health Affairs King Saud Bin Abdulaziz University for Health Sciences & Postgraduate Training Center	Riyadh, KSA
Oct 2011	Traumatic Brain Injury (TBI) EEG / Neurophysiological Monitoring for TBI King Abdulaziz Medical City, National Guard Health Affairs King Saud Bin Abdulaziz University for Health Sciences & the Postgraduate Training Center	Riyadh, KSA
Oct 2011	Neurosciences Critical Care” Course & Workshop Neurophysiological Monitoring of the CNS King Abdulaziz Medical City, National Guard Health Affairs King Saud Bin Abdulaziz University for Health Sciences & Postgraduate Training Center	Riyadh, KSA
1999-17	IONM & EEG: Basics & Advance Training Trained 350+ Neurophysiology technologists	KSA /USA
2009-10	ASET Continuing Education: 38.5 ACE Credits Course <i>IONM in High-Risk Spine &amp; Brain Surgeries: Monthly Lecture Series</i>	USA
2003-05	Master's Thesis Supervision at <i>Wayne State University</i> External supervisor, <i>“Efficacy of intraoperative neurophysiological monitoring in detecting and preventing injury during high-risk brain aneurysm surgeries.”</i>	Detroit, MI, USA
2002-04	ASET Continuing Education: 28 ACE Credits Course <i>TCeMEP: Trans Cranial Motor Evoked Potentials. Weekly Lecture Series</i> Seven courses: Trained 30+ neurophysiologists in various states across the US.	USA
1996-97	Gross Anatomy Graduate and Postgraduate Medical & Dental Students	Case Western Reserve University, Cleveland, OH, USA

1995-96	Human Biology Undergraduate Students	<i>Cleveland State University, Cleveland, OH, USA</i>
1991-92	Medicine & Surgery Medical students	<i>Hayat Shaheed Teaching Hospital, Peshawar, Pakistan</i>

***Grand Rounds for Physicians & Surgeons:***

Dec 2023	Neurophysiological Monitoring for Spine Surgery National Guard Hospital Annual Spine Day	Jeddah, KSA
Jan 2023	Live Neuromonitoring Workshop in Spine Surgery Department of Spine Surgery, Hayatabad Medical Complex	Peshawar, Pakistan
Jan 2021	Introducing IONM in KPK for Spine, Brain, and ENT Surgeons Hosted by KMCAANA and Global Innervation LLC, USA	Live Workshop, USA
Apr 2019	Recent Advances in Intraoperative Neurophysiological Monitoring for Neurosurgery <i>King Fahad University Hospital, Dammam, KSA</i>	
Nov 2018	Intraoperative Neurophysiological Monitoring (IONM): A New Modality for Surgeries Shifa International Hospital, Islamabad, Pakistan	
Mar 2018	Recent Advances in Neuroscience: Surgical Neurophysiology for Improvement in Post-Operative Patients' Outcome. Live Video Presentation, APPNA Neurology MERIT, Dallas, TX/Pakistan	
Feb 2018	Intraoperative Neurophysiological Monitoring (IONM) in Neurosurgical Procedures Dept of Neurosurgery, University of Texas Health Science Center, San Antonio, TX, USA	
Oct 2017	IONM for Neurosurgeries Dept. of Neurosurgery, Hamad Medical Corporation	Doha, Qatar
Apr 2015	Introduction to Intraoperative Neurophysiological Monitoring Dept of Neurosciences, Hamad Medical Corporation	Doha, Qatar
Dec 2013	Introduction to Intraoperative Neurophysiological Monitoring Neurology Residents of Riyadh, Dept. of Medicine, NGHA	Riyadh, KSA
Dec 2013	Neurophysiological Monitoring during High-Risk Vascular Surgeries Live Video Presentation, APPNA Neurology MERIT, Riyadh, KSA/Pakistan	
Feb 2013	Cranial Nerve Monitoring: Preventing Facial Nerve Injuries & Hearing Preservation during high-risk brain surgeries. Live Video Presentation, APPNA Neurology MERIT, Riyadh, KSA/Pakistan	
Nov 2012	Intraoperative Neurophysiological Monitoring: Effect of Anesthesia NGHA, Dept. of Anesthesia, Riyadh, KSA	

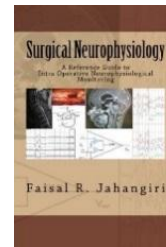
Sept 2012	Surgical Neurophysiology: A Luxury or Necessity? Live Video Presentation, APPNA Neurology MERIT	Riyadh, KSA/Pakistan
July 2012	Introduction to Intraoperative Neurophysiological Monitoring King Abdulaziz Medical City, NGH, Dept. of Surgery	Jeddah, KSA
Feb 2012	Introduction to Intraoperative Neurophysiological Monitoring King Abdulaziz Medical City, NGH, Dept. of Medicine	Riyadh, KSA
April 2011	Surgical Neurophysiology: Selective Dorsal Root Rhizotomy (SDR) for the treatment of Spasticity. Live Video Presentation. APPNA Neurology MERIT	Charlottesville, VA/Pakistan
Oct 2010	Anesthesia & Surgical Neurophysiology: Effect of Anesthesia on Intraoperative Neurophysiological Monitoring. Live Video Presentation. APPNA Neurology MERIT, Charlottesville, VA/Pakistan	
Aug 2010	Surgical Neurophysiology: An Introduction to Intraoperative Neurophysiological Monitoring. Live Video Presentation. APPNA Neurology MERIT, Pakistan	
Oct 2008	IONM in Brain Surgeries	UVA Neurosurgery, Charlottesville, VA, USA
Oct 2008	IONM in Spine Surgeries	UVA Neurosurgery, Charlottesville, VA, USA
July 2008	IONM and Spine Surgeries	UVA Ortho/Neuro Spine, Charlottesville, VA, USA
May 2007	Physiological Effects on Evoked Potentials	WHC, Washington, D.C, USA
Mar 2005	Advances in IONM	Seattle, WA, USA
Dec 2004	IONM in high-risk surgical procedures	KMC, Peshawar, Pakistan
Nov 2004	Anesthesia and IONM	Seattle, WA, USA
Sep 2003	IONM in Interventional Neurosurgical procedures	TJUH, Philadelphia, PA, USA
<b><i>In-services</i></b>		
Jan 2024	Advance IONM services (TinaMed Team)	Jeddah, KSA
Feb 2013	IONM: Introduction to the OR (Neurophysiology Lab Team)	NGHA, Riyadh, KSA
Mar 2012	IONM: Cranial Nerves (Neurophysiology Lab Team)	NGHA, Riyadh, KSA
Feb 2012	Introduction to IONM (Neurophysiology Lab Team)	NGHA, Riyadh, KSA
May 2009	IONM in Neurosurgery (Nursing Staff Team)	UVA, Charlottesville, VA, USA

Feb 2009	IONM in INR Procedures (INR Team)	UVA, Charlottesville, VA, USA
Jan 2009	IONM in Spine Surgeries (Spine Nursing Team)	UVA, Charlottesville, VA, USA
Oct 2004	IONM in High-Risk Surgeries	VMC, Seattle, WA, USA

**Books Published:**

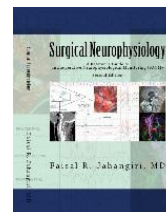
**1. Surgical Neurophysiology: First Edition**

“A Reference Guide to Intraoperative Neurophysiological Monitoring (IONM)”  
 Amazon Printing Press: November 2011; page count: 328, ISBN: 1466297131.



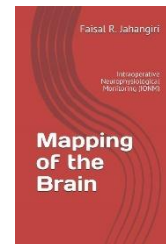
**2. Surgical Neurophysiology: Second Edition**

“A Reference Guide to Intraoperative Neurophysiological Monitoring (IONM)”  
 Amazon Printing Press: April 2012; page count: 410,  
 ISBN147516498X (Paperback)



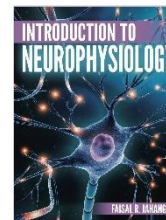
**3. Mapping of the Brain.**

“Intraoperative Neurophysiological Monitoring (IONM)”  
 Global Innervation LLC, USA. Amazon Printing Press: Mar 2021, page count: 78,  
 ISBN 979-8700754903.



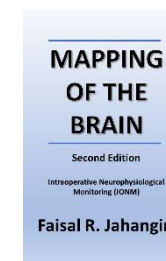
**4. Introduction to Neurophysiology.**

Kendall Hunt. 2023  
 ISBN 9798765742976 (paperback)  
 ISBN 9798765742969 (ebook)



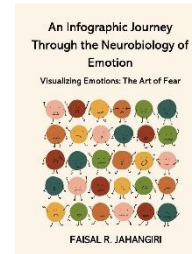
**5. Mapping of the Brain, Second Edition**

“Intraoperative Neurophysiological Monitoring (IONM)”  
 Global Innervation LLC, USA. Amazon Printing Press: July 2023, page count: 134,  
 ISBN 979-8851700866.



## 6. An Infographic Journey Through the Neurobiology of Emotion: Visualizing Emotions: The Art of Fear

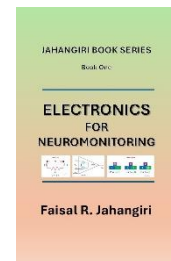
Global Innervation LLC, USA. Amazon Printing Press: July 2024, page count:347,  
ISBN 979-8333026941 (hardcover)  
ISBN 979-8332353901 (paperback)



## 7. Electronics for Neuromonitoring

Book One: Jahangiri Book Servies

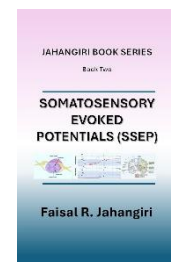
Global Innervation LLC, USA. Amazon Printing Press: Sep 2024, page count:140  
ISBN 979-8340573216 (hardcover)  
ISBN 979-8340082732 (paperback)



## 8. Somatosensory Evoked Potentials (SSEP)

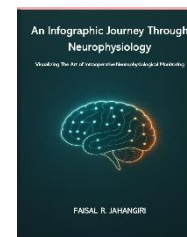
Book Two: Jahangiri Book Servies

Global Innervation LLC, USA. Amazon Printing Press: May 2025, page count: 265  
ISBN 979-8282664195 (hardcover)  
ISBN 979- 8307993064 (paperback)



## 9. An Infographic Journey Through Neurophysiology: Visualizing the Art of Intraoperative Neurophysiological Monitoring

Global Innervation LLC, USA. Amazon Printing Press: April 2025, page count:234,  
ISBN 979-8281593991 (hardcover)  
ISBN 979-8281537292 (paperback)



### **Chapters Published:**

1. **Jahangiri, Faisal R.** "Neurophysiological Monitoring of the Cervical Spine." Chapter. In *Textbook of the Cervical Spine*, edited by Francis H Shen, Dino Samartzis, and Richard G Fessler, 105–14. Philadelphia, PA: Elsevier Press, 2014.

2. **Jahangiri, Faisal R**, Aksharkumar Dobariya, Aaron Kruse, Olga Kalyta, and John D. Moorman. "Mapping of the Motor Cortex." Chapter. In *Prime Archives in Medicine*. 2nd Edition, edited by Shola Elijah Adeniji. Hyderabad, India: Vide Leaf. 2021.
3. **Jahangiri, Faisal R**, Gabrielle L Bennett, Sahar S Anjum, Keri Watters, and Katharine Pautler. "Mapping of the Sensory Cortex." Essay. In *Mapping of the Brain: Intraoperative Neurophysiological Monitoring (IONM)*, 1–16. Dallas, TX: Independently published, 2021.
4. **Jahangiri, Faisal R**, Aksharkumar Dobariya, Aaron Kruse, Olga Kalyta, and John D. Moorman. "Mapping of the Motor Cortex." Essay. In *Mapping of the Brain: Intraoperative Neurophysiological Monitoring (IONM)*, 17–40. Dallas, TX: Independently published, 2021.
5. **Jahangiri, Faisal R**, Gurtegh S. Chima, Martha Pearson, Jacob Jackson and Arshad A. Siddiqui. "Mapping of the Language Cortex." Essay. In *Mapping of the Brain: Intraoperative Neurophysiological Monitoring (IONM)*, 41–68. Dallas, TX: Independently published, 2021.
6. Shehzeen Fatima Memon, **Faisal R. Jahangiri**. Basics of EEG. Dow University of Health Sciences, Karachi, Pakistan, Global Innervation LLC, Dallas, Texas, USA. Neurology Pocketbook, Essential Neurology. NeuroCare.AI PLLC, USA. Jan 18, 2022.
7. **Jahangiri, Faisal R**. "Basic Electronics for Neurophysiology." Chapter. In *Introduction to Neurophysiology*, 93–112. Dubuque, IA: Kendall Hunt Publishing, 2023.
8. Reagan Knightship, Keri Watters, Kara Smith, Brianna Mazzaccaro, and **Faisal R. Jahangiri**. "Lumbosacral Spinal Fusion Surgeries." Chapter. In *Introduction to Neurophysiology*, 115–124. Dubuque, IA: Kendall Hunt Publishing, 2023.
9. Emily Appel, and **Faisal R. Jahangiri**. "Femoral Nerve Monitoring During Lateral Spine Surgeries." Chapter. In *Introduction to Neurophysiology*, 125–130. Dubuque, IA: Kendall Hunt Publishing, 2023.
10. **Jahangiri, Faisal R**, and Rabehah A. Asdi. "External Urinary Sphincter Muscles Recordings During Spine Surgeries." Chapter. In *Introduction to Neurophysiology*, 131-140. Dubuque, IA: Kendall Hunt Publishing, 2023.
11. **Jahangiri, Faisal R.**, Rafia H. Jahangiri, Hooria Asad, Laila Farooq & Wadana H. Khattak. "Scoliosis" Chapter. In *Introduction to Neurophysiology*, 141-154. Dubuque, IA: Kendall Hunt Publishing, 2023.
12. Bennett, Gabrielle, Rabehah A. Asdi, Hiral Gorasia, Tal Allouche, Suen K. Chun, and **Faisal R. Jahangiri**. "Dorsal Root Rhizotomy for Cerebral Palsy." Chapter. In *Introduction to Neurophysiology*, 155-162. Dubuque, IA: Kendall Hunt Publishing, 2023.
13. Chalamalasetty, Prasanth, Shruthi Ravikumar, Anwara Khan, and **Faisal R. Jahangiri**. "Parotid Surgeries" Chapter. In *Introduction to Neurophysiology*, 165-178. Dubuque, IA: Kendall Hunt Publishing, 2023.
14. Blake, India, Jorge Lopez, Haley Puryear, Kelly Williams, Seniha Williams, and **Faisal R. Jahangiri**. "Thyroid Surgeries" Chapter. In *Introduction to Neurophysiology*, 179-190. Dubuque, IA: Kendall Hunt Publishing, 2023.

15. Farhan, Rida, Chen Wang, and **Faisal R. Jahangiri**. “Cranial Nerve Surgeries” Chapter. In *Introduction to Neurophysiology*, 191-212. Dubuque, IA: Kendall Hunt Publishing, 2023.
16. Assi, Zenah, Carmen Salazar, Franz C. Mallalieu, Kathryn Williams, and **Faisal R. Jahangiri**. “Thoracoabdominal Aortic Aneurysm Surgeries” Chapter. In *Introduction to Neurophysiology*, 215-230. Dubuque, IA: Kendall Hunt Publishing, 2023.
17. **Jahangiri, Faisal R.**, Marie Liang, Misty Huckabey, Naomi Baloney, and Sarah Sharifi. “Carotid Endarterectomy Surgeries” Chapter. In *Introduction to Neurophysiology*, 231-242. Dubuque, IA: Kendall Hunt Publishing, 2023.
18. Angel Voon, Cristian Graces, Hoa Nguyen, Nicole Davenport, and **Faisal R. Jahangiri**. “Electroencephalography and Electrocorticography” Chapter. In *Introduction to Neurophysiology*, 243-256. Dubuque, IA: Kendall Hunt Publishing, 2023.
19. Kathryn Williams, Xinyi Win, and **Faisal R. Jahangiri**. “Electroencephalography versus Electrocorticography” Chapter. In *Introduction to Neurophysiology*, 259-266. Dubuque, IA: Kendall Hunt Publishing, 2023.
20. **Jahangiri, Faisal R.**, Katharine Pautler, Keri Watters, Sahar S. Anjum, and Gabrielle L. Bennett. “Mapping of the Somatosensory Cortex” Chapter. In *Introduction to Neurophysiology*, 267-276. Dubuque, IA: Kendall Hunt Publishing, 2023.
21. Yildirim, Seniha, Emily Appel, Nwasinachi A. Ezeji, and **Faisal R. Jahangiri**. “Sensory Mapping of the Brain – Median versus Tibial Nerve” Chapter. In *Introduction to Neurophysiology*, 277-284. Dubuque, IA: Kendall Hunt Publishing, 2023.
22. **Jahangiri, Faisal R.**, Marie Liang, Shahab S. Kabir, and Oly Khowash “Motor Mapping of the Brain: Taniguchi versus Penfield Method” Chapter. In *Introduction to Neurophysiology*, 285-298. Dubuque, IA: Kendall Hunt Publishing, 2023.
23. Kabir, Shahab S., Callista Rinesmith, Cristobal Vilches, and **Faisal R. Jahangiri**. “Language Mapping of the Brain” Chapter. In *Introduction to Neurophysiology*, 299-314. Dubuque, IA: Kendall Hunt Publishing, 2023.
24. Fejeran, Joshua, Frank Salazar, Cesia M. Alvarez, and **Faisal R. Jahangiri**. “Deep Brain Stimulation and Microelectrode Recording for the Treatment of Parkinson’s Disease” Chapter. In *Introduction to Neurophysiology*, 315-328. Dubuque, IA: Kendall Hunt Publishing, 2023.
25. Shiwani, Tuba, Yasaman Hooshmandi, Hannah Cabrera, Sarah Wolfe, and **Faisal R. Jahangiri**. “Meta-Analysis Regarding the Effects of Anesthetic Fade on Motor Evoked Potentials (MEP) and Somatosensory Evoked Potentials (SSEPs)” Chapter. In *Introduction to Neurophysiology*, 331-344. Dubuque, IA: Kendall Hunt Publishing, 2023.
26. **Jahangiri, Faisal R.**, Gabrielle L Bennett, Sahar S Anjum, Keri Watters, and Katharine Pautler. “Mapping of the Sensory Cortex.” In *Mapping of the Brain 2<sup>nd</sup> Edition: Intraoperative Neurophysiological Monitoring (IONM)*, 1–14. Dallas, TX: Independently published, 2023.

27. **Jahangiri, Faisal R**, Aksharkumar Dobariya, Aaron Kruse, Olga Kalyta, and John D. Moorman. "Mapping of the Motor Cortex." *Mapping of the Brain 2<sup>nd</sup> Edition: Intraoperative Neurophysiological Monitoring (IONM)*, 15–32. Dallas, TX: Independently published, 2023.
28. **Jahangiri, Faisal R**, Marie Liang, Shabab S. Kabir, and Oly Khowash. "Motor Mapping of the Brain: Taniguchi vs Penfield Methods." *Mapping of the Brain 2<sup>nd</sup> Edition: Intraoperative Neurophysiological Monitoring (IONM)*, 32–50. Dallas, TX: Independently published, 2023.
29. **Jahangiri, Faisal R**, Gurtegh S. Chima, Martha Pearson, Jacob Jackson, and Arshad A. Siddiqui. "Mapping of the Language Cortex." *Mapping of the Brain 2<sup>nd</sup> Edition: Intraoperative Neurophysiological Monitoring (IONM)*, 51–68. Dallas, TX: Independently published, 2023.
30. Kabir, Shabab S, **Faisal R. Jahangiri**, Callista Rinesmith, and Cristobal S, Vilches. "Mapping of the Language Cortex." *Mapping of the Brain 2<sup>nd</sup> Edition: Intraoperative Neurophysiological Monitoring (IONM)*, 69-92. Dallas, TX: Independently published, 2023.
31. Fejeran, Joshua, Frank Salazar, Cesia M. Alvarez, and **Faisal R. Jahangiri**. "Mapping of the Language Cortex." *Mapping of the Brain 2<sup>nd</sup> Edition: Intraoperative Neurophysiological Monitoring (IONM)*, 93-112. Dallas, TX: Independently published, 2023.
32. Imtiaz MT, **Jahangiri FR**. Practical points of intraoperative neurophysiological monitoring for spinal deformity surgery. Chapter 39. In Correction techniques for spinal deformity. Editors: Zileli, M, Yman O, Aebi M. Thieme. P 271-273. 2024. Doi: 10.1055/b-0043-199163.
33. Ashram, YA, **Jahangiri FR**. Intraoperative monitoring of cranial nerves in neurotologic surgery. In: Flint PW, Haughey BH, Lund VJ, Robbins KT, Thomas JR, Lesperance MM, Francis HW, editors. Cummings otolaryngology: head and neck surgery. 8th ed. Philadelphia (PA): Elsevier; 2026. p. 2762–2779. doi:10.1016/B978-0-443-11984-2.00177-X

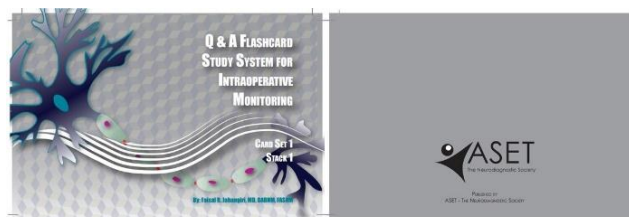
**Flashcards Published:**

**Q & A Flashcard Study System for Intraoperative Monitoring**

Set 1/ Stack 1

ASET, Kansas City, MO, USA. May 2016

250 Questions and Answers: Flashcards for the IONM exam.



## **Papers Published:**

### **1. Intraoperative microvascular Doppler ultrasound monitoring in an ovine model of acute spinal cord injury**

Qingze Wu<sup>1</sup>, Lisa Klopp, MD<sup>2</sup>, Alexander Y. Razumovsky, PhD<sup>1</sup>, Thoms G. Lowe, MD<sup>3</sup>, Lucas Wilson, MS<sup>3</sup>, Katrina Layman, MS<sup>4</sup>, **Faisal R. Jahangiri, MD<sup>4</sup>**, Jeffrey H. Owen, PhD<sup>4</sup>. <sup>1</sup>*Sentient Medical Systems, Inc. (Maryland), Cockeysville, MD, USA;* <sup>2</sup>*Colorado State University, Ft. Collins, CO, USA;* <sup>3</sup>*Woodridge Spine Center, Denver CO, Wheat Ridge, CO, USA;* <sup>4</sup>*Sentient Medical Systems, Cockeysville, MD, USA.* *The Spine Journal*, 10 September 2004 (Vol. 4, Issue 5, Pages S16-S17)

### **2. Predicting surgical outcome by Somatosensory Evoked Potentials and Trans-Cranial Electric Motor Evoked Potentials in a Cervical-Medullary Junction Hemangioblastoma**

Faisal R. Jahangiri, James J. Persyn, R. Webster Crowley, Neal F. Kassell & Francisco Vega-Bermudez (2010) Predicting Surgical Outcome Using Somatosensory Evoked Potentials and Transcranial Electric Motor Evoked Potentials in a Cervical-Medullary Junction Hemangioblastoma, *American Journal of Electroneurodiagnostic Technology*, 50:2, 101-110, DOI: 10.1080/1086508X.2010.11079761.

### **3. Intraoperative Neuromonitoring: Lessons learned from 32 case events in 2095 spine cases**

Eager M, Jahangiri F, Shimer A, Shen F, Arlet V. Intraoperative neuromonitoring: lessons learned from 32 case events in 2095 spine cases. *Evid Based Spine Care J.* 2010 Aug;1(2):58-61. doi: 10.1055/s-0028-1100917.

### **4. Protecting the Genitofemoral Nerve during Direct Lateral Interbody Fusion (DLIF/XLIF) Procedures**

Jahangiri FR, Sherman JH, Holmberg A, Louis R, Elias J, Vega-Bermudez F. Protecting the genitofemoral nerve during direct/extreme lateral interbody fusion (DLIF/XLIF) procedures. *Am J Electroneurodiagnostic Technol.* 2010 Dec;50(4):321-35.

### **5. Preventing Position-Related Brachial Plexus Injury with Intraoperative Somatosensory Evoked Potentials (SSEP) and Trans-Cranial Electrical Motor Evoked Potentials (TCeMEP) during Anterior Cervical Spine Surgery**

Jahangiri FR, Holmberg A, Vega-Bermudez F, Arlet V. Preventing position-related brachial plexus injury with intraoperative somatosensory evoked potentials and transcranial electrical motor evoked potentials during anterior cervical spine surgery. *Am J Electroneurodiagnostic Technol.* 2011 Sep;51(3):198-205.

### **6. Limiting the current density during Localization of the Primary Motor Cortex by using a Tangential-Radial Cortical SSEP Model, DECS and Electrocorticography**

Jahangiri FR, Sherman JH, Sheehan J, Shaffrey M, Dumont AS, Vengrow M, Vega-Bermudez F. Limiting the current density during localization of the primary motor cortex by using a tangential-radial cortical somatosensory evoked potentials model, direct electrical cortical stimulation, and electrocorticography. *Neurosurgery.* 2011 Oct;69(4):893-8. doi: 10.1227/NEU.0b013e3182230ac3.

### **7. Intra Operative Neurophysiological Monitoring (IONM): “Lessons Learned from 32 Case Events in 2069 Spine Cases”**

Eager M, Shimer A, Jahangiri FR, Shen F, Arlet V. Intraoperative neurophysiological monitoring (IONM): lessons learned from 32 case events in 2069 spine cases. *Am J Electroneurodiagnostic Technol.* 2011 Dec;51(4):247-63.

### **8. Preventing lower cranial nerve injuries during fourth ventricle tumor resection by utilizing intraoperative neurophysiological monitoring**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1,2</sup>**; Mazhar Minhas, MD, CNIM<sup>1</sup>; John Jane Jr, MD<sup>3</sup>. <sup>1</sup>*Division of Neurology, Dept. of Medicine; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia;* <sup>2</sup>*Impulse Monitoring Inc., Columbia, MD, USA;* <sup>3</sup>*University of Virginia Medical Center, Dept. of Neurosurgery, Charlottesville, VA, USA.* *The Neurodiagnostic Journal.* Dec 2012, 52(4), Pages. ASET, Missouri, USA.

### **9. Multimodality Neurophysiological Monitoring during Tibial/Fibular Osteotomies for Preventing Peripheral Nerve Injuries**

Jahangiri FR. Multimodality neurophysiological monitoring during tibial/fibular osteotomies for preventing peripheral nerve injuries. *Neurodiagn J.* 2013 Jun;53(2):153-68.

### **10. Intraoperative Neurophysiological Monitoring during Sacrectomy Procedures**

Jahangiri FR, Al Eissa S, Jahangiri AF, Al-Habib A. Intraoperative neurophysiological monitoring during sacrectomy procedures. *Neurodiagn J.* 2013 Dec;53(4):312-22.

### **11. Anterior-Posterior Resection of Sacral Tumor with Computer Navigation System**

Jahangiri, AF<sup>1</sup>; Jahangiri, FR<sup>2</sup>. <sup>1</sup>Department of Experimental Medicine, King Abdullah International Medical Research Center; <sup>2</sup>Division of Neurology, Department of Medicine, King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia. *Bioengineering Conference (NEBEC), 2014 40th Annual Northeast.* 2014, 1-2. Accessed: Oct 20, 2015: <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6972822>. 10.1109/NEBEC.2014.6972822

### **12. Neurophysiological Monitoring of the Spinal Sensory and Motor Pathways during Embolization of Spinal Arterio-Venous Malformation: Propofol a Safe Alternate**

Jahangiri FR, Sheryar M, Al Okaili R. Neurophysiological monitoring of the spinal sensory and motor pathways during embolization of spinal arteriovenous malformations--propofol: a safe alternative. *Neurodiagn J.* 2014 Jun;54(2):125-37.

### **13. Fulminant Acute Disseminated Encephalomyelitis**

Hassan A. Alayafi<sup>1</sup>; Faisal R. Jahangiri<sup>1</sup>; Mukki Almutashri<sup>2</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Department of Neuroradiology; King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia. *Pak J Med Res.* Vol. 53, No. 3, July-Sep. 2014. Doi: 10.5281/zenodo.10722369.

### **14. Early detection of pedicle screw related spinal cord injury by continuous intraoperative neurophysiological monitoring (IONM)**

Jahangiri FR, Sheryar M, Al Behairy Y. Early detection of pedicle screw-related spinal cord injury by continuous intraoperative neurophysiological monitoring (IONM). *Neurodiagn J.* 2014 Dec;54(4):323-37.

### **15. Intraoperative Neurophysiological Monitoring (IONM) For Cordotomy Procedures**

Jahangiri FR. Intraoperative Neurophysiological Monitoring (IONM) for Cordotomy Procedures. *Neurodiagn J.* 2015 Sep;55(3):169-79.

### **16. Computer-Assisted Navigation During Anterior-Posterior En Bloc Resection of Sacral Tumor**

Al Eissa S, Al-Habib AF, Jahangiri FR. Computer-Assisted Navigation During an Anterior-Posterior En Bloc Resection of a Sacral Tumor. *Cureus.* 2015 Nov 4;7(11):e373. doi: 10.7759/cureus.373.

### **17. Vertebral Column Resection for Kyphoscoliosis in a Patient with Ehlers-Danlos Syndrome: An Intraoperative Neurophysiological Monitoring Alert.**

Jahangiri FR, Al Eissa S, Sayegh S, Al Helal F, Al-Sharif SA, Annaim MM, Muhammad S, Aziz T. Vertebral Column Resection for Kyphoscoliosis in a Patient with Ehlers-Danlos Syndrome: An Intraoperative Neurophysiological Monitoring Alert. *Cureus.* 2016 Aug 31;8(8):e759.

### **18. Benefit of Intraoperative Neurophysiological Monitoring (IONM) in a Pediatric Patient With Spinal Dysmorphism, Split Cord and Scoliosis**

Jahangiri FR, Sayegh SA, Azzubi M, Alrajhi AM, Annaim MM, Al Sharif SA, Aziz T, Al Eissa S. Benefit of Intraoperative Neurophysiological Monitoring in a Pediatric Patient with Spinal Dysmorphism, Split Cord Malformation, and Scoliosis. *Neurodiagn J.* 2017;57(4):295-307. doi: 10.1080/21646821.2017.1396780.

### **19. Multimodality Intraoperative Neurophysiological Monitoring (IONM) in Anterior Hip Arthroscopic Repair Surgeries**

Overzet K, Kazewych M, Jahangiri FR. Multimodality Intraoperative Neurophysiological Monitoring (IONM) in Anterior Hip Arthroscopic Repair Surgeries. *Cureus.* 2018 Sep 22;10(9):e3346. doi: 10.7759/cureus.3346.

### **20. Waveform Window #42: Sudden Unexpected Change of Latency during Median Nerve Phase Reversal**

Jahangiri FR, Overzet K, Crosier T, Tarasiewicz I. Waveform Window #42: Sudden Unexpected Change of Latency during Median Nerve Phase Reversal. *Neurodiagn J.* 2018;58(3):182-188. doi: 10.1080/21646821.2018.1499305.

## **21. Practice guidelines for the supervising professional: Intraoperative Neurophysiological Monitoring.**

Gertsch JH, Moreira JJ, Lee GR, Hastings JD, Ritzl E, Eccher MA, Cohen BA, Shils JL, McCaffrey MT, Balzer GK, Balzer JR, Boucharel W, Guo L, Hanson LL, Hemmer LB, **Jahangiri FR**, Mendez Vigil JA, Vogel RW, Wierzbowski LR, Wilent WB, Zuccaro JS, Yingling CD; membership of the ASNM. *J Clin Monit Comput.* 2018 Oct 30. doi: 10.1007/s10877-018-0201-9.

## **22. The incidence of Positioning-Related Intraoperative Neurophysiological Monitoring (IONM) Changes: A Review of 5894 Surgeries”.**

Kathryn Overzet<sup>1</sup>, Chen Wang<sup>1,2</sup> and **Faisal Riaz Jahangiri**<sup>1\*</sup>. <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX, USA, <sup>2</sup>Graduate Student, Department of Applied Cognition and Neuroscience, University of Texas, Richardson, TX, USA. *EC Neurology* 11.1 (2019). 10.5281/zenodo.10723188.

## **23. Motor Evoked Potentials Recordings from Urethral Sphincter Muscles (USMEP) During Spine Surgeries.**

Jahangiri FR, Silverstein JW, Trausch C, Al Eissa S, George ZM, DeWal H, Tarasiewicz I. Motor Evoked Potential Recordings from the Urethral Sphincter Muscles (USMEPs) during Spine Surgeries. *Neurodiagn J.* 2019;59(1):34-44. doi: 10.1080/21646821.2019.1572375.

## **24. Utilizing Longer Intramuscular Needle Pair Electrodes: What Are We Missing in Our Intraoperative Muscle Recordings?**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN**<sup>1,2</sup>, Courtney Trausch, BS<sup>3</sup>; <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX; <sup>2</sup>Global Innervations LLC, Dallas, TX; <sup>3</sup>Student, Dept. of Applied Cognition and Neuroscience, University of Texas, Richardson, TX. *EC Neurology* 11.4 (2019): 288-294.

## **25. Intraoperative Triggered Electromyography Recordings from the External Urethral Sphincter Muscles During Spine Surgeries**

**Faisal R Jahangiri**<sup>1,2</sup>, **Rabehah A. Asdi**<sup>3</sup>, **Izabela Tarasiewicz**<sup>4</sup>, **Moutasem Azzubi**<sup>5</sup>. <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX; <sup>2</sup>Global Innervations LLC, Dallas, TX; <sup>3</sup>Student, Dept. of Applied Cognition and Neuroscience, University of Texas, Richardson, TX; <sup>4</sup>Dept. of Neurosurgery, University of Texas Health Science Center, San Antonio, TX, USA; <sup>5</sup>Division of Neurosurgery, Department of Surgery; King Abdulaziz Medical City, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia. Muacevic A, Adler JR, eds. *Cureus* 11(6): e4867. doi:10.7759/cureus.4867

## **26. Waveform Window #46: Radial Nerve SSEP (Rn-SSEP): Is it Reliable?**

Jahangiri FR, Qadir N, Blaylock J, Cronce-Solano L, Ramsey J. Waveform Window #46: Radial Nerve SSEP (Rn-SSEP): Is It Reliable? *Neurodiagn J.* 2019;59(4):232-235. doi: 10.1080/21646821.2019.1680085.

## **27. Protecting the Visual Pathways During Optic Nerve Surgery Using Intraoperative Visual Evoked Potentials (VEP)**

**Jahangiri FR**, Ilyas S, Asdi R, Escobedo E, Seals E. “Protecting the Visual Pathways During Optic Nerve Surgery Using Intraoperative Visual Evoked Potentials (VEP)”. *Acta Scientific Clinical Case Reports* 1.2 (2020): 01-06.

## **28. Bulbocavernosus Reflex Monitoring During Intramedullary Conus Tumor Surgery.**

Overzet K, **Jahangiri FR**, Funk R. Bulbocavernosus Reflex Monitoring During Intramedullary Conus Tumor Surgery. *Cureus.* 2020 Mar 10;12(3):e7233..

## **29. Mapping of the Somatosensory Cortex**

**Jahangiri FR**, Pautler K, Watters K, Anjum SS, Bennett GL. (March 19, 2020) Mapping of the Somatosensory Cortex. *Cureus* 12(3): e7332. doi:10.7759/cureus.7332

## **30. Multimodality Intraoperative Neurophysiological Monitoring (IONM) During Shoulder Surgeries**

**Jahangiri FR**, Blaylock J, Qadir N, Ramsey JA. Multimodality Intraoperative Neurophysiological Monitoring (IONM) During Shoulder Surgeries. *Neurodiagn J.* 2020 Apr 16:1-17. doi: 10.1080/21646821.2020.1743952.

### **31. Intraoperative Neurophysiological Monitoring During Trigeminal Schwannoma Surgery**

Jahangiri FR, Azam A, Asdi RA, Ahmad I, Basha SI. (Sep. 2020) Intraoperative Neurophysiological Monitoring During Trigeminal Schwannoma Surgery. Cureus (in Print): e. doi:10.7759/cureus.

### **32. Mapping of the Motor Cortex**

Jahangiri FR, Dobariya A, Kruse A, Kalyta O, Moorman JD. (September 25, 2020) Mapping of the Motor Cortex. Cureus 12(9): e10645. doi:10.7759/cureus.10645.

### **33. Intraoperative Neurophysiological Monitoring for Brainstem Tumor Surgeries.**

Faisal R Jahangiri, Katharine Pautler, Elizabeth Ekvall, Meredith Tucker, Angela Goodlin and Afia Islam. "Intraoperative Neurophysiological Monitoring for Brainstem Tumor Surgeries." EC Neurology 12.11 (2020): 80-87. doi:10.5281/zenodo.10722246.

### **34. Mapping of the Language Cortex**

Jahangiri FR, Chima GS, Pearson M, Jackson J, Siddiqui AA. (May 11, 2021) Mapping of the Language Cortex. Cureus 13(5): e14960. doi:10.7759/cureus.14960.

### **34. Distal Stimulation Site at the Medial Tibia for Saphenous Nerve Somatosensory Evoked Potentials (DSn-SSEPs) in Lateral Lumbar Spine Procedures**

Overzet K, Mora D, Faust E, Krisko L, Welch D, Jahangiri FR. Distal Stimulation Site at the Medial Tibia for Saphenous Nerve Somatosensory Evoked Potentials (DSn-SSEPs) in Lateral Lumbar Spine Procedures. Neurodiagn J. 2021 Jun;61(2):72-85. doi: 10.1080/21646821.2021.1903277.

### **35. Emerging Super-specialty of Neurology: Intraoperative Neurophysiological Monitoring (IONM) and Experience in Various Neurosurgeries at a Tertiary Care Hospital in Doha, Qatar**

Ali L, Jahangiri F R, Ali A, et al. (December 15, 2021) Emerging Super-specialty of Neurology: Intraoperative Neurophysiological Monitoring (IONM) and Experience in Various Neurosurgeries at a Tertiary Care Hospital in Doha, Qatar. Cureus 13(12): e20432. doi:10.7759/cureus.20432

### **36. Motor Mapping of the Brain: Taniguchi Versus Penfield Metho**

Jahangiri F R, Liang M, Kabir S S, et al. (May 11, 2022) Motor Mapping of the Brain: Taniguchi Versus Penfield Method. Cureus 14(5): e24901. doi:10.7759/cureus.24901

### **37. ASNM and ASN joint guidelines for transcranial Doppler ultrasonic monitoring: An update**

Razumovsky AY, Jahangiri FR, Balzer J, Alexandrov AV. ASNM and ASN joint guidelines for transcranial Doppler ultrasonic monitoring: An update. J Neuroimaging. 2022 May 19. doi: 10.1111/jon.13013.

### **38. Carotid Endarterectomy Surgeries: A Multimodality Intraoperative Neurophysiological Monitoring Approach**

Jahangiri F R, Liang M, Huckabey M, et al. (July 04, 2022) Carotid Endarterectomy Surgeries: A Multimodality Intraoperative Neurophysiological Monitoring Approach. Cureus 14(7): e26556. doi:10.7759/cureus.26556.

### **39. Deep Brain Stimulation and Microelectrode Recording for the Treatment of Parkinson's Disease**

Fejeran J, Salazar F, Alvarez C M, Jahangiri F R. (August 11, 2022). Deep Brain Stimulation and Microelectrode Recording for the Treatment of Parkinson's Disease. Cureus 14(8): e27887. doi:10.7759/cureus.27887.

### **40. Scoliosis Corrective Surgery with Continuous Intraoperative Neurophysiological Monitoring (IONM)**

Jahangiri F R, Jahangiri R H, Asad H, Farooq H, Khattak WH (October 05, 2022) Scoliosis Corrective Surgery with Continuous Intraoperative Neurophysiological Monitoring (IONM). Cureus 14(10): e29958. doi:10.7759/cureus.29958.

### **41. The Incidence Rate of Motor Evoked Potential Alerts in 1159 Lumbar Spinal Surgeries**

Umair, M., Asghar R., Jahangiri FR. The Incidence Rate of Motor Evoked Potential Alerts in 1159 Lumbar Spinal Surgeries. *J Neurol Neurophysiol.* 2022, 13(10), 001-003. doi: 10.5281/zenodo.10723826.

#### **42. Intraoperative Testing During the Mapping of the Language Cortex**

Kabir SS, Jahangiri FR, Rinesmith C, Vilches CS, Chakarvarty S. (March 26, 2023) Intraoperative Testing During the Mapping of the Language Cortex. *Cureus* 15(3): e36718. doi:10.7759/cureus.36718.

#### **43. A Meta-analysis of Quantitative Electroencephalography (EEG) in Insomnia Sleep Disorder.**

Khan A, Memon U, Jahangiri F R. A Meta-analysis of Quantitative Electroencephalography (EEG) in Insomnia Sleep Disorder. *J of Neurophysiological Monitoring.* 2023; 1(1): 1-7. DOI: 10.5281/zenodo.8118258.

#### **44. Facial Nerve Monitoring During Parotidectomy: A Case Series.**

Nadeem, W., Khattak, W. H., Jahangiri, R. H., Asad, H., Farooq, L., Blaylock, J., Cronce-Solano, L., Garza, R. R., Fell, W. R., Basha, I. S., & **Jahangiri, F. R.** (2023). Facial Nerve Monitoring During Parotidectomy: A Case Series. *J of Neurophysiological Monitoring*; 1(1), 1–12. doi: 10.5281/zenodo.8206378.

#### **45. The Frequency of Motor Evoked Potential Alerts During Lumbar Spinal Surgeries.**

Umair, M., Asghar, M. R., & **Jahangiri, F. R.** (2023). The Frequency of Motor Evoked Potential Alerts During Lumbar Spinal Surgeries. *J of Neurophysiological Monitoring*, 1(1), 13–21. doi:10.5281/zenodo.10206767.

#### **46. Benefits of Intraoperative Neurophysiological Monitoring (IONM) for the Localization, Mapping, and Resection of Tumors in the Fourth Ventricle: A Literature Review.**

Alvarez, C. M., Farhan, R., & **Jahangiri, F. R.** (2023). Benefits of Intraoperative Neurophysiological Monitoring (IONM) for the Localization, Mapping, and Resection of Tumors in the Fourth Ventricle: A Literature Review. *J of Neurophysiological Monitoring*, 1(1), 22–36. <https://doi.org/10.5281/zenodo.10207910>

#### **47. Spinal Cord Mapping with Somatosensory Evoked Potentials (SSEP) in Cervical and Thoracic Surgeries**

**Jahangiri, F. R.**, Khan, A., Alouche, T., Gorasia, H., Mesfin, Y., & Bathurst, N.(2023). Spinal Cord Mapping with Somatosensory Evoked Potentials (SSEP) in Cervical and Thoracic Surgeries. *J of Neurophysiological Monitoring*, 1(1), 37–43. doi:10.5281/zenodo.10207942.

#### **48. Electroencephalography (EEG) in Psychiatry: A Review Article.**

Singh, M., Muhammad, A., & **Jahangiri, F. R.** (2023). Electroencephalography (EEG) in Psychiatry: A Review Article. *J of Neurophysiological Monitoring*, 1(1), 44–50. doi:10.5281/zenodo.10207987

#### **49. Exploring the Efficacy of Hypoglossal Nerve Monitoring and Stimulation in Treating Obstructive Sleep Apnea.**

Nadeem, W., Qayum, A., Jahangiri, R. H., Hasnain, S., Mumtaz, M., & **Jahangiri, F. R.** (2023). Exploring the Efficacy of Hypoglossal Nerve Monitoring and Stimulation in Treating Obstructive Sleep Apnea. *J of Neurophysiological Monitoring*, 1(2), 12–19. doi:5281/zenodo.10214346

#### **50. A Meta-analysis of Quantitative Electroencephalography (EEG) in Insomnia Sleep Disorder.**

Memon U, Umair M, Khan A, **Jahangiri FR.** A Meta-analysis of Quantitative Electroencephalography (EEG) in Insomnia Sleep Disorder. *J of Neurophysiological Monitoring*, 1(2), 20–27. doi:10.5281/zenodo.8118257.

#### **51. Utility of Intraoperative Neurophysiological Monitoring in Thyroid Surgeries.**

Blake, I., Lopez, J., Puryear, H., Williams, K., Yildirim, S., & **Jahangiri, F. R.** (2023). Utility of Intraoperative Neurophysiological Monitoring in Thyroid Surgeries. *J of Neurophysiological Monitoring*, 1(2), 28–36. doi:10.5281/zenodo.10214449.

#### **52. Cochlear Implantation and Intraoperative Neurophysiological Monitoring of the Facial Nerve.**

Nadeem, W., & **Jahangiri, F. R.** (2024). Cochlear Implantation and Intraoperative Neurophysiological Monitoring of the Facial Nerve. *J of Neurophysiological Monitoring*, 2(1), 1–7. doi:10.5281/zenodo.10205916.

#### **53. Stroke Incidence in Cerebral Aspergillosis: A meta-analysis.**

Qureshi, V., Gul, F., & **Jahangiri, F. R.** (2024). Stroke Incidence in Cerebral Aspergillosis: A meta-analysis. *J of Neurophysiological Monitoring*, 2(1), 8–17. doi:10.5281/zenodo.10324425.

#### **54. Use of Electroencephalography for Treatment Validation and Symptom Classification in Patients with Combat-Related Post-Traumatic Stress Disorder.**

Flippen, C., Higginbotham, C., Leung, C., Royer, D., & Jahangiri, F. R. (2024). Use of Electroencephalography for Treatment Validation and Symptom Classification in Patients with Combat-Related Post-Traumatic Stress Disorder. *J of Neurophysiological Monitoring*, 2(1), 18–34. doi:10.5281/zenodo.10385004.

#### **55. The Use of Brain-Computer Interface Technology in the Restoration of the Upper Limb Functions from Spinal Cord Injuries.**

Flippen, C., Nalliah, P. K., & Jahangiri, F. R. (2024). The Use of Brain-Computer Interface Technology in the Restoration of the Upper Limb Functions from Spinal Cord Injuries. *J of Neurophysiological Monitoring*, 2(1), 35–43. <https://doi.org/10.5281/zenodo.10520503>.

#### **56. Benefits and Risks of Intraoperative Neuromonitoring for Intramedullary Spinal Cord Tumors: A Technical Report.**

Iduh, C., Khan, A., Chalamalasetty, P., Shiwani, T., Nguyen, L., & Jahangiri, F. R. (2024). Benefits and Risks of Intraoperative Neuromonitoring for Intramedullary Spinal Cord Tumors: A Technical Report. *J of Neurophysiological Monitoring*, 2(1), 44–54. <https://doi.org/10.5281/zenodo.10573532>.

#### **57. Effect of Dexmedetomidine on Motor Evoked Potentials in the Adult Population: Systematic Review and Meta-Analysis.**

Jahangiri, F. R., & Voon, A. Y. (2024). Effect of Dexmedetomidine on Motor Evoked Potentials in the Adult Population: Systematic Review and Meta-Analysis. *J of Neurophysiological Monitoring*, 2(2), 1–13. <https://doi.org/10.5281/zenodo.10607542>.

#### **58. The Effects of Microgravity on EEG Recordings: A Systematic Review.**

Cole, J. C., Akbar, A. M., Chakarvarty, S., & Jahangiri, F. R. (2024). The Effects of Microgravity on EEG Recordings: A Systematic Review. *J of Neurophysiological Monitoring*, 2(2), 14–24. <https://doi.org/10.5281/zenodo.10689996>

#### **59. Exploring Meditation Techniques through EEG: A Systematic Review Contrasting Focused Attention and Open Monitoring Practices.**

Garcia, C., Hosabettu, V., Vintila, T., & Jahangiri, F. R. (2023). Exploring Meditation Techniques through EEG: A Systematic Review Contrasting Focused Attention and Open Monitoring Practices. *J of Neurophysiological Monitoring*, 2(2), 31–45.

#### **60. The Advantages of Using Intraoperative Neurophysiological Monitoring in Hip Surgeries: A Meta-Analysis.**

Sam, A., Parapperi, R., Isa, U., Mumtaz, M., & Jahangiri, F. R. (2024). The Advantages of Using Intraoperative Neurophysiological Monitoring in Hip Surgeries: A Meta-Analysis. *J of Neurophysiological Monitoring*, 2(2), 46–59. <https://doi.org/10.5281/zenodo.11152081>.

#### **61. The Impact of Neurophysiological Monitoring on Patient Outcomes in Carotid Endarterectomy: A Meta-Analysis.**

Jahangiri, F. R., Salazar, M., Arjarapu, R., & Gutierrez, E. (2024). The Impact of Neurophysiological Monitoring on Patient Outcomes in Carotid Endarterectomy: A Meta-Analysis. *J of Neurophysiological Monitoring*, 2(3), 1–11. <https://doi.org/10.5281/zenodo.12588227>.

#### **62. Intraoperative somatosensory evoked potential (SEP) monitoring: an updated position statement by the American Society of Neurophysiological Monitoring.**

Toleikis, J.R., Pace, C., Jahangiri, F.R. *et al.* Intraoperative somatosensory evoked potential (SEP) monitoring: an updated position statement by the American Society of Neurophysiological Monitoring. *J Clin Monit Comput* (2024). <https://doi.org/10.1007/s10877-024-01201-x>.

#### **63. Sensitivity and Specificity of Intraoperative Neurophysiological Monitoring in Lumbar Spinal Surgery: A Meta-Analysis**

Dave, N., Jaimson, N. M., Siraj, R., Oladiji, J., & Jahangiri, F. R. (2024). Sensitivity and Specificity of Intraoperative Neurophysiological Monitoring in Lumbar Spinal Surgery: A Meta-Analysis. *J of Neurophysiological Monitoring*, 2(3), 21–30. <https://doi.org/10.5281/zenodo.13917244>.

#### **64. Multimodality Intraoperative Neurophysiological Monitoring (IONM) with Selective Dorsal Root Rhizotomy For patients with Cerebral Palsy**

Kamran, N., Khan, M. I., Hasnain, S., Jahangiri, R. H., Qayyum, A., Muhammad, A., & Jahangiri, F. R. (2024). Multimodality Intraoperative Neurophysiological Monitoring (IONM) with Selective Dorsal Root Rhizotomy For patients with Cerebral Palsy. *J of Neurophysiological Monitoring*, 2(3), 31–44. <https://doi.org/10.5281/zenodo.13927264>.

#### **65. Efficacy of Sugammadex as a Reversal with an Optimized Train of Four Stimulation Parameters.**

Jahangiri, F. R., De Curtis, A., Workneh, E., Aziz, H., & Murimbechi, Z. (2024). Efficacy of Sugammadex as a Reversal with an Optimized Train of Four Stimulation Parameters. *J of Neurophysiological Monitoring*, 2(3), 45–62. <https://doi.org/10.5281/zenodo.13945416>

## 66. The Indispensable Role of Intraoperative Neurophysiological Monitoring in Tethered Cord Release Surgeries.

Aziz, H., & Jahangiri, F. R. (2024). The Indispensable Role of Intraoperative Neurophysiological Monitoring in Tethered Cord Release Surgeries. *J of Neurophysiological Monitoring*, 2(3), 63–66. <https://doi.org/10.5281/zenodo.13952961>

## 67. Literature Review of Subcortical Mapping Techniques in Glioblastoma Surgeries.

Satsangi, M., Iduh, C., & Jahangiri, F. R. (2024). Literature Review of Subcortical Mapping Techniques in Glioblastoma Surgeries. *J of Neurophysiological Monitoring*, 3(1), 8–27. <https://doi.org/10.5281/zenodo.14420746>.

## 68. Intraoperative Neurophysiological Monitoring (IONM) During Peripheral Nerve Hand Surgeries.

Jahangiri, F. R., Jahangiri, R. H., Khan, A., & Khan, M. I. (2024). Intraoperative Neurophysiological Monitoring (IONM) During Peripheral Nerve Hand Surgeries. *J of Neurophysiological Monitoring*, 3(1), 28–35. <https://doi.org/10.5281/zenodo.14426668>.

## 69. Enhancing the Effectiveness of Monitoring the Robust Bulbocavernosus Reflex in Cauda Equina Surgeries: Harnessing Machine Learning to Decode the Complexity of Stimulation Parameters.

Jahangiri, F. R., Alzahrany, M., Aziz, H., Nguyen, L., Qayum, A., Mohamed, J., Gangardiwala, Z., & Ejaz, M. U. (2024). Enhancing the Effectiveness of Monitoring the Robust Bulbocavernosus Reflex in Cauda Equina Surgeries: Harnessing Machine Learning to Decode the Complexity of Stimulation Parameters. *J of Neurophysiological Monitoring*, 3(1), 36–60. <https://doi.org/10.5281/zenodo.14516690>.

## 70. Evaluating the Effectiveness of Intraoperative Neuromonitoring Modalities in Spinal Dysraphism Surgeries: A Systematic Review.

Anees, S., Nah, E., Chung, S., Ezhil, V., Khan, I., Mohiuddin, F., Tesy, S. U., & Jahangiri, F. R. (2025). Evaluating the Effectiveness of Intraoperative Neuromonitoring Modalities in Spinal Dysraphism Surgeries: A Systematic Review. *J of Neurophysiological Monitoring*, 3(1), 61–92. <https://doi.org/10.5281/zenodo.14786910>.

## 71. Motor Evoked Potential Monitoring in Pregnancy

Khan, A., Khan, A., Malik, A., Satsangi, M., Khan, M. I., Jakkamsetti, P. S., Mehra, S., & Jahangiri, F. R. (2025). Motor Evoked Potential Monitoring in Pregnancy. *J of Neurophysiological Monitoring*, 3(2), 22–30. <https://doi.org/10.5281/zenodo.15284110>.

## 72. Assessing The Role of Intraoperative Neurophysiological Monitoring (IONM) in Preserving Pelvic Floor Integrity During High-Risk Surgeries

Chung, S., Nah, E., Ejaz, M. U., Anees, S., Mohammad Habib, S., Ezhil, V., Garza, M., Khan, I., & Jahangiri, F. R. (2025). Assessing The Role of Intraoperative Neurophysiological Monitoring (IONM) in Preserving Pelvic Floor Integrity During High-Risk Surgeries. *J of Neurophysiological Monitoring*, 3(2), 31–68. <https://doi.org/10.5281/zenodo.15376879>.

## 73. The Mapping of the Sensory Circuits in the Spinal Cord: A Literature Review

Mohammed, A., Brown, C., Aziz, H., Franca, A., & Jahangiri, F. R. (2025). The Mapping of the Sensory Circuits in the Spinal Cord: A Literature Review. *J of Neurophysiological Monitoring*, 3(2), 69–87. <https://doi.org/10.5281/zenodo.15542995>

## 74. Wired for Relief: Assessing the Risks and Rewards of DBS in Treatment-Resistant Obsessive Compulsive Disorder

Nataraja, V., Ravindran, J., Steelman, A., Turner, J. F., & Jahangiri, F. R. (2025). Wired for Relief: Assessing the Risks and Rewards of DBS in Treatment-Resistant Obsessive Compulsive Disorder. *J of Neurophysiological Monitoring*, 3(2), 88–100. <https://doi.org/10.5281/zenodo.16222883>.

## 75. StableSleep: Source-Free Test-Time Adaptation for Sleep Staging with Lightweight Safety Rails

Arasu, H., & Jahangiri, F. R. (2025). StableSleep: Source-Free Test-Time Adaptation for Sleep Staging with Lightweight Safety Rails. arXiv preprint arXiv:2509.02982.

## 76. Evaluating Neurological Outcomes in Neonates Through SSEP: A Review of Current Evidence

Siddiqui, E. R., Ayyoub, S. M., Parapperi, R., Isa, U. J., Mohammad, J., Mohammad Habib, S., Memon, U., & Jahangiri, F. R. (2025). Evaluating Neurological Outcomes in Neonates Through SSEP: A Review of Current Evidence. *J of Neurophysiological Monitoring*, 3(3), 9–20. <https://doi.org/10.5281/zenodo.16923257>

## 77. Focused Ultrasound for Movement Disorders: Evidence from a Systematic Review of Efficacy and Safety

Brown, C., Shaik, R., Arasu, H., & Jahangiri, F. R. (2025). Focused Ultrasound for Movement Disorders: Evidence from a Systematic Review of Efficacy and Safety. *J of Neurophysiological Monitoring*, 3(3), 21–29. <https://doi.org/10.5281/zenodo.16933232>

## 78. Intraoperative Cortical Mapping for Epilepsy Surgery: Advances, Challenges, and Clinical Insights

## **79. Safeguarding the Voice: The Role of Intraoperative Neurophysiological Monitoring (IONM) in Total Thyroidectomy.**

Asad, H., & Jahangiri, F. R. (2025). Safeguarding the Voice: The Role of Intraoperative Neurophysiological Monitoring (IONM) in Total Thyroidectomy. *J of Neurophysiological Monitoring*, 3(3), 56–60. <https://doi.org/10.5281/zenodo.17996259>.

### **Letters to the Editor**

#### **1. Response to: Is the new ASNM intraoperative neuromonitoring supervision "guideline" a trustworthy guideline? A commentary.**

Gertsch JH, Moreira JJ, Lee GR, Hastings JD, Ritzl E, Eccher MA, Shils JL, Balzer GK, Balzer JR, Boucharel W, Guo L, Hanson LL, Hemmer LB, **Jahangiri FR**, Mendez Vigil JA, Vogel RW, Wierzbowski LR, Wilent WB, Zuccaro JS, Yingling CD. *J Clin Monit Comput*. 2019 Feb 26. doi: 10.1007/s10877-019-00288-x.

#### **2. Letter to the Editor. Intraoperative neurophysiological monitoring and ACDF.**

Wilent WB, Ney JP, Balzer J, Donohue ML, Gertsch JH, Holdefer R, **Jahangiri FR**, Overzet K, Shils J, Vogel R. Letter to the Editor. Intraoperative neurophysiological monitoring and ACDF. *J Neurosurg Spine*. 2019 Oct 4:1-2. doi:10.3171/2019.6.SPINE19641

#### **3. Response to a Letter to the Editor. Distal Stimulation Site at the Medial Tibia for Saphenous Nerve Somatosensory Evoked Potentials (DSn-SSEPs) in Lateral Lumbar Spine Procedures**

Faisal Jahangiri & Kathryn Overzet. *Neurodiagn J*. 2021 Dec;61(4). doi: 10.1080/21646821.2021.2001629.

#### **4. Response to ASNM intraoperative SSEP position statement. J Clin Monit Comput (2024).**

Richard Toleikis, J., Pace, C., F. R. Jahangiri, F. *et al*. <https://doi.org/10.1007/s10877-024-01247-x>.

### **Abstracts Published:**

#### **1. “Intraoperative microvascular Doppler ultrasound monitoring in an ovine model of acute spinal cord injury.”**

Qingze Wu<sup>1</sup>, Lisa Klopp, MD<sup>2</sup>, Alexander Y. Razumovsky, PhD<sup>1</sup>, Thoms G. Lowe, MD<sup>3</sup>, Lucas Wilson, MS<sup>3</sup>, Katrina Layman, MS<sup>4</sup>, **Faisal R. Jahangiri, MD<sup>4</sup>**, Jeffrey H. Owen, PhD<sup>4</sup>. <sup>1</sup>*Sentient Medical Systems, Inc. (Maryland), Cockeysville, MD, USA;* <sup>2</sup>*Colorado State University, Ft. Collins, CO, USA;* <sup>3</sup>*Woodridge Spine Center, Denver CO, Wheat Ridge, CO, USA;* <sup>4</sup>*Sentient Medical Systems, Cockeysville, MD, USA*. Proceedings of the NASS 19th Annual Meeting / *The Spine Journal* 4 (2004) 3S–119S. *The Spine Journal*, 10 September 2004 (Vol. 4, Issue 5, Pages S16-S17)

#### **2. “Tangential-Radial Cortical SSEP Model, DECS and ECoG Localization in Posterior Frontal Metastatic Adenocarcinoma”.**

Kevin McCarthy<sup>1</sup>, **Faisal Jahangiri, MD<sup>1</sup>**, Peter Balousek, MD<sup>2</sup>; <sup>1</sup>*Impulse monitoring Inc., Columbia, MD,* <sup>2</sup>*Department of Neurosurgery, Valley Medical Center, Seattle, WA, USA*. Abstracts Specialty section on Surgical Neuromonitoring, *Journal of Clinical Monitoring and Computing*, Volume 20, Number 1 / February 2006, pages 57-65.

### **3. “Multimodality Neurophysiological Monitoring in Tibial/Fibular Osteotomies for preventing Peripheral Nerve Injuries.”**

**F. Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>**; R. Wimberly, M.D.<sup>2</sup>; S. McClure, M.D.<sup>2</sup>; L. Blakemore, M.D.<sup>2</sup> <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD, USA* <sup>2</sup>*Children National Medical Center, Orthopedic Surgery, Washington DC, USA*. Abstracts of the 28<sup>th</sup> International Congress of Clinical Neurophysiology. Edinburgh, Scotland. 10-14 September 2006. Volume 117, Supplement 1, Pages 114-115 (S121-S336).

### **4. “Use of Intraoperative Monitoring during Selective Dorsal Root Rhizotomies for treatment of severe thoracic pain.”**

**Faisal Jahangiri, MD<sup>1</sup>**, Zachary Levine, MD<sup>2</sup>. <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD*, <sup>2</sup>*Department of Neurosurgery, Washington Hospital Center, Washington DC, USA*. Abstracts Specialty section on Surgical Neuromonitoring, Journal of Clinical Monitoring and Computing, Volume 21, Number 1 / February 2007, Pages 63-69.

### **5. “Multimodality Neurophysiological Monitoring in Tibial/Fibular Osteotomies for preventing Peripheral Nerve Injuries.”**

**Faisal Jahangiri, MD<sup>1</sup>**, John Contreras, CNIM<sup>1</sup>; Robert Wimberly, M.D.<sup>2</sup>; Shannon McClure, M.D.<sup>2</sup>; Laurel Blakemore, M.D.<sup>2</sup>. <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD*, <sup>2</sup>*Children National Medical Center, Orthopedic Surgery, Washington DC, USA*. Abstracts published in the proceeding of the 19th Annual ASN M Meeting: Research Paper, Chicago, IL. May 2008. American Society of Neurophysiological Monitoring.

### **6. “Predicting surgical outcome by Somatosensory Evoked Potentials and Trans-Cranial Electric Motor Evoked Potentials in a Cervical-Medullary Junction Hemangioblastoma.”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>**, R. Webster Crowley, MD<sup>2</sup>; James Persyn, CNIM<sup>1</sup>; Neal F. Kassell, MD<sup>2</sup>; Francisco Vega-Bermudez, MD<sup>3</sup>. <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD*, <sup>2</sup>*Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA*, <sup>3</sup>*American Neuromonitoring Associates, Columbia, MD, USA*. Abstracts published in the proceeding of the meeting “ASET 2009 Annual Conference, The Gold Standard, Phoenix, AZ, August 5-8, 2009. Page 11

### **7. “Use of Intraoperative Neurophysiological Monitoring during Selective Dorsal Root Rhizotomies for treatment of Spasticity in a patient with Cerebral Palsy.”**

**Faisal R. Jahangiri, MD<sup>1</sup>, CNIM, D.ABNM<sup>1</sup>**, Jeff Elias, MD<sup>2</sup>. <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD*, <sup>2</sup>*Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA, USA*. Abstracts published in the proceeding of the meeting “ASET 2009 Annual Conference, The Gold Standard”, Phoenix, AZ, August 5-8, 2009. Page 10.

### **8. “Protecting the Genitofemoral Nerve during Direct Lateral Interbody Fusion (DLIF/XLIF) Procedures”.**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>**, Jonathan H. Sherman, MD<sup>2</sup>, Robert Louis, MD<sup>2</sup>, Jeff Elias, MD<sup>2</sup>, Francisco Vega-Bermudez, MD<sup>3</sup>. <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD*, <sup>2</sup>*Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA, USA*. Abstracts published in the proceeding of the meeting “ASN M 21<sup>st</sup> Annual Meeting of ASN M”, Nashville, TN, April 23-25, 2010. P367.

### **9. “Protecting the Genitofemoral Nerve during Direct Lateral Interbody Fusion (DLIF/XLIF) Procedures”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>**, Jonathan H. Sherman, MD<sup>2</sup>, Robert Louis, MD<sup>2</sup>, Jeff Elias, MD<sup>2</sup>, Francisco Vega-Bermudez, MD<sup>3</sup>. <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD*, <sup>2</sup>*Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA, USA*. Abstracts published in the proceeding of the meeting “ASET 2010 Annual Conference”, Louisville, KY, August 4-7, 2010.

## 10. "Protecting the Sensory and Motor Spinal Pathways during the Embolization of Spinal AVM in INR Suite"

Faisal Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>; Pervez Khan, MD<sup>2</sup>; Andrea Holmberg, CNIM<sup>1</sup>; Aaron Dumont, MD<sup>2</sup>; Malia Willis, CNIM<sup>1</sup>; Francisco Vega-Bermudez, MD<sup>3</sup>. <sup>1</sup>Impulse Monitoring Inc., Columbia, MD; <sup>2</sup>University of Virginia Medical Center, Department of Neurosurgery, Charlottesville, VA; <sup>3</sup>American Neuromonitoring Associates, Columbia, MD, USA. Abstracts published in the proceeding of the meeting "ASET 2010 Annual Conference", Louisville, KY, August 4-7, 2010. Page 12.

## 11. "Intraoperative Neuromonitoring: Lessons learned from 32 case events in 2095 spine cases".

M Eager, MD<sup>1</sup>, A Shimer, MD<sup>1</sup>, F Jahangiri, MD, D.ABNM<sup>2</sup>, FH Shen, MD<sup>1</sup>, V Arlet, MD<sup>1</sup>. <sup>1</sup>University of Virginia Medical Center, Department of Orthopaedic Surgery, Charlottesville, VA; <sup>2</sup>Impulse Monitoring Inc., Columbia, MD, USA. Abstract published in Eur Spine J (2010) 19 (Suppl 3):S233–S364. Page 32-34. From the issue entitled "EuroSpine 2010, Annual Meeting of the European Spine Society, 15-17- September 2010, Vienna, Austria - Abstracts."

## 12. "Limiting the current density during Localization of the Primary Motor Cortex by using a Tangential-Radial Cortical SSEP Model, DECS and Electrocorticography."

Faisal R. Jahangiri, MD<sup>1</sup>; Jonathan H. Sherman, MD<sup>2</sup>; Jason Sheehan, MD<sup>2</sup>; Mark Shaffrey, MD<sup>2</sup>; Aaron Dumont, MD<sup>2</sup>; Michael Vengrow, MD<sup>3</sup>; Francisco Vega-Bermudez, MD<sup>3</sup>. <sup>1</sup>Impulse Monitoring Inc., Columbia, MD, <sup>2</sup>Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA, <sup>3</sup>American Neuromonitoring Associates, Columbia, MD, USA. Abstracts published in the proceeding of the meeting, Congress (<http://www.cns.org/guide/findAuthorsDetails.aspx?lname=48507>).

## 13. "Monitoring in Underdeveloped countries."

Faisal R. Jahangiri, MD<sup>1</sup>; James Watt, CNIM<sup>2</sup>; <sup>1</sup>Impulse Monitoring Inc., Columbia, MD, <sup>2</sup>Biotronic NeuroNetwork. Abstracts published in the proceeding of 22<sup>nd</sup> ASNM annual meeting 2011. Orlando, FL, USA

## 14. "Limiting the current density during Localization of the Primary Motor Cortex by using a Tangential-Radial Cortical SSEP Model, DECS and Electrocoigraphy."

Faisal R. Jahangiri, MD<sup>1</sup>; Jonathan H. Sherman, MD<sup>2</sup>; Jason Sheehan, MD<sup>2</sup>; Mark Shaffrey, MD<sup>2</sup>; Aaron Dumont, MD<sup>2</sup>; Michael Vengrow, MD<sup>3</sup>; Francisco Vega-Bermudez, MD<sup>3</sup>. <sup>1</sup>Impulse Monitoring Inc., Columbia, MD, <sup>2</sup>Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA, <sup>3</sup>American Neuromonitoring Associates, Columbia, MD, USA. Abstracts published in the proceeding of 22<sup>nd</sup> ASNM annual meeting 2011. Orlando, FL, USA

## 15. "Protecting the Spinal Cord Sensory and Motor functions during Cordotomy Procedures."

Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>, Gautam Mehta MD<sup>2</sup>, Jeff Elias, MD<sup>2</sup>, Barbara Landesman, MD, FRCP(C)<sup>3</sup>. <sup>1</sup>Impulse Monitoring Inc., Columbia, MD, <sup>2</sup>Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA, <sup>3</sup>Pacific Neuromonitoring Associates, Columbia, MD, USA. Abstracts published in the proceeding of 22<sup>nd</sup> ASNM annual meeting 2011. Orlando, FL.

## 16. "Intraoperative Neuromonitoring: Lessons learned from 32 case events in 2095 spine cases".

M Eager, MD<sup>1</sup>, A Shimer, MD<sup>1</sup>, F Jahangiri, MD, D.ABNM<sup>2</sup>, FH Shen, MD<sup>1</sup>, V Arlet, MD<sup>1</sup>. <sup>1</sup>University of Virginia Medical Center, Department of Orthopaedic Surgery, Charlottesville, VA; <sup>2</sup>Impulse Monitoring Inc., Columbia, MD; USA. Abstracts published in the proceeding of 22<sup>nd</sup> ASNM annual meeting 2011. Orlando, FL.

## 17. "Protecting the Spinal Cord Sensory and Motor Functions during Cordotomy Procedures."

Faisal Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>; Gautam U. Mehta, MD<sup>2</sup>; Jeff Elias, MD<sup>2</sup>; Barbara Landesman, MD FRCP(C)<sup>3</sup>. <sup>1</sup>Impulse Monitoring Inc., Columbia, MD; <sup>2</sup>University of Virginia Medical Center, Department of Neurosurgery, Charlottesville,

VA; <sup>3</sup>*Pacific Neuromonitoring Associates, Columbia, MD, USA*. Abstracts published in the proceeding of the meeting “ASET (Neurodiagnostic Society) 2011 Annual Conference”, Co-sponsored by SSET (Southern Society if Electroneurodiagnostic Technologists), Atlanta, GA, July 27-30, 2011, p 13.

### **18. “Localization of the Primary Motor Cortex by using a Tangential-Radial Cortical SSEP Model, DECS, and Electroconvulsography.”**

**Faisal Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>**; R Webster Crowley, MD<sup>2</sup>; Jeff Elias, MD<sup>2</sup>; <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD*; <sup>2</sup>*University of Virginia Medical Center, Department of Neurosurgery, Charlottesville, VA, USA*. Abstracts published in the abstract book of the meeting “ASET (Neurodiagnostic Society) 2011 Annual Conference”, Co-sponsored by SSET (Southern Society if Electroneurodiagnostic Technologists), Atlanta, GA, USA July 27-30, 2011, p 11.

### **19. “Preventing the Visual Pathways during Optic Nerve Surgery Using Neurophysiological Monitoring”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>**; Yaser A. Babgi, MD<sup>2</sup>; Abdullah Bishi<sup>2</sup>; Mudhed Ajmi<sup>2</sup>; Neville Russell, MD<sup>2</sup>. <sup>1</sup>*Division of Neurology, Department of Medicine*; <sup>2</sup>*Department of Neurosurgery; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia*. Abstracts published in the abstract book of 6<sup>th</sup> (Saudi Association of Neurological Surgeons) SANS annual meeting 2012: Horizons of Neurosurgery V. Alkhobar, Saudi Arabia. Apr 3-5, 2012, p 72.

### **20. “Localization of Central Sulcus by Cortical Sensory Mapping, Direct Cortical Motor Stimulation and Electroconvulsography”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1</sup>**, Yaser A. Babgi, MD<sup>2</sup>; Mudhed Ajmi<sup>1</sup>, Merdas H. AlOtaibi, MD<sup>2</sup>. <sup>1</sup>*Division of Neurology, Department of Medicine*; <sup>2</sup>*Department of Neurosurgery; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia*. Abstracts published in the abstract book of 6<sup>th</sup> (Saudi Association of Neurological Surgeons) SANS annual meeting 2012: Horizons of Neurosurgery V. Alkhobar, Saudi Arabia. Apr 3-5, 2012, p 71.

### **21. “Protecting the Spinal Cord Sensory and Motor Functions during Cordotomy Procedures”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1,2</sup>**, Gautam Mehta MD<sup>3</sup>, Jeff Elias, MD<sup>3</sup>, Barbara Landesman, MD, FRCP(C)<sup>4</sup>. <sup>1</sup>*Division of Neurology, Department of Medicine, King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia*, <sup>1</sup>*Impulse Monitoring Inc., Columbia, MD*, <sup>3</sup>*Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA, USA*, <sup>4</sup>*Pacific Neuromonitoring Associates, Columbia, MD, USA*. Abstracts published in the proceeding of 6<sup>th</sup> SANS (Saudi Association of Neurological Surgeons) annual meeting 2012: Horizons of Neurosurgery V. Alkhobar, Saudi Arabia. Apr 3-5, 2012, p27.

### **22. “Preventing lower cranial nerve injuries during fourth ventricle tumor resection by utilizing IOM”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1,2</sup>**; Mazhar Minhas, MS, MD<sup>2</sup>; Brian Williams, MD<sup>3</sup>; John Jane Jr., MD<sup>3</sup>. <sup>1</sup>*Division of Neurology, Department of Medicine; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia*; <sup>2</sup>*Impulse Monitoring Inc., Columbia, MD, USA*; <sup>3</sup>*Department of Neurosurgery, University of Virginia Medical Center, Charlottesville, VA, USA*. Abstracts published in proceedings of the Annual American Society of Neurophysiological Monitoring (ASNM) meeting. Salt Lake City, UT, USA. May 4-6, 2012.

### **23. “Multimodality Neurophysiological Monitoring in Tibial/Fibular Osteotomies for preventing Peripheral Nerve Injuries”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM<sup>1,2</sup>**; Robert Wimberly, MD<sup>3</sup>. <sup>1</sup>*Division of Neurology, Department of Medicine; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia*; <sup>2</sup>*Impulse Monitoring Inc., Columbia, MD, USA*; <sup>3</sup>*Children National Medical Center, Orthopedic Surgery, Washington DC, USA*. Abstracts published in proceedings of Saudi Physical Therapy Conference. Riyadh, Saudi Arabia. May 15-16, 2012, p 34.

### **24. “Protecting the Visual Pathways during Optic Nerve Surgery Using Neurophysiological**

## Monitoring”

**Faisal R. Jahangiri, MD, CNIM, D.ABNM**<sup>1</sup>; Yaser A. Babgi, MD<sup>2</sup>; Abdullah Bishi<sup>2</sup>; Mudhed Ajmi<sup>2</sup>; Neville Russell, MD<sup>2</sup>.

<sup>1</sup>*Division of Neurology, Department of Medicine;* <sup>2</sup>*Department of Neurosurgery; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia.* Abstracts published in the proceeding of the Department of Medicine: 13<sup>th</sup> Research Day, Riyadh, Saudi Arabia. May 23, 2012, p 32.

### **25. “Localization of Central Sulcus by Cortical Sensory Mapping, Direct Cortical Motor Stimulation and Electroocortigraphy”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM**<sup>1</sup>, Yaser A. Babgi, MD<sup>2</sup>; Mudhed Ajmi<sup>1</sup>, Merdas H. AlOtaibi, MD<sup>2</sup>. <sup>1</sup>*Division of Neurology, Department of Medicine;* <sup>2</sup>*Department of Neurosurgery; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia.* Abstracts published in the proceeding of Department of Medicine: 13<sup>th</sup> Research Day, Riyadh, Saudi Arabia. May 23, 2012, p 30.

### **26. “Establishment of Normal Visual Evoked Potentials (VEPs) Values in Adult Saudi Males”**

Ahmed Abulaban, MBBS<sup>1</sup>; **Faisal R. Jahangiri, MD, CNIM, D.ABNM**<sup>1</sup>, Hussein Malibary<sup>2</sup>. <sup>1</sup>*Division of Neurology, Department of Medicine; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia;* <sup>2</sup>*Department of Medicine; King Abdulaziz University Hospital, Jeddah, Saudi Arabia.* Abstracts published in the proceeding of King Saud Bin Abdulaziz University for Health Sciences 15<sup>th</sup> Resident's Day, Riyadh, National Guard Health Affairs, Saudi Arabia. Dec 4<sup>th</sup>, 2012, page 36.

### **27. “Neurophysiologic Monitoring during Spine Surgeries: A luxury or Necessity?”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM.** *Division of Neurology, Department of Medicine; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia.* Abstract published in proceedings of 2<sup>nd</sup> Saudi International Conference on Intra Operative Neurophysiology, Tufts School of Medicine & King Fahad Medical City, Riyadh, Saudi Arabia. March 18, 2013, p 46.

### **28. “Preventing Cranial Nerve Injuries during High-Risk Brain Surgeries”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM.** *Division of Neurology, Department of Medicine; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia.* Abstract published in proceedings of 2<sup>nd</sup> Saudi International Conference on Intra Operative Neurophysiology, Tufts School of Medicine & King Fahad Medical City, Riyadh, Saudi Arabia. March 18, 2013, page 31.

### **29. “Intraoperative Neurophysiological Monitoring during High-Risk Skull Base Surgeries”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM.** *Division of Neurology, Department of Medicine; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia.* Abstract published in proceedings of the Annual American Society of Neurophysiological Monitoring (ASN) meeting. Boston, MA, USA. May 3-5, 2013.

### **30. “Neurophysiologic Monitoring during Spine Surgeries: A luxury or Necessity?”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN.** *Division of Neurology, Department of Medicine;* <sup>2</sup>*Department of Neurosurgery; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia.* Abstracts published in the proceeding of the Department of Medicine: 14<sup>th</sup> Research Day, Riyadh, Saudi Arabia. May 22, 2013; page 28.

### **31. “Multimodality Neurophysiological Monitoring in Tibial/Fibular Osteotomies for preventing Peripheral Nerve Injuries.”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>.** *Division of Neurology, Department of Medicine; <sup>2</sup>Department of Neurosurgery; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia.* Abstracts published in the proceeding of the Department of Medicine: 14<sup>th</sup> Research Day, Riyadh, Saudi Arabia. May 22, 2013; page 26.

### **32. “Localization of Cortical Language Areas by Direct Cortical Motor Stimulation (DECS) and Electrocorticography (ECoG).”**

**Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>;** Anila F Jahangiri, PhD<sup>2</sup>; Ahmed Abulaban, MBBS<sup>1</sup>; Nasser Tawfeeq, MD<sup>3</sup>; Merdas H. AlOtaibi, MD<sup>4</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>King Abdullah International Medical Research Center; <sup>3</sup>Department of Anesthesiology; <sup>4</sup>Division of Neurosurgery, Department of Surgery; King Abdulaziz Medical City, Riyadh, Saudi Arabia. Abstracts published in the proceeding of 16<sup>th</sup> Resident’s Day, Postgraduate Medical Education & Academic Affairs, King Abdulaziz Medical City; Riyadh, Saudi Arabia.

### **33 “Early Detection of Pedicle Screw related Spinal Cord Injury by Intraoperative Neurophysiological Monitoring (IONM)”**

**Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>;** Muhammad Sheryar, MBBS<sup>2</sup>; Anila F Jahangiri, PhD<sup>3</sup>; Yaser Al Behairy, MD, FRCSC<sup>4</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Department of Anesthesia; <sup>3</sup>Department of Experimental Medicine, King Abdullah International Medical Research Center; <sup>4</sup>Division of Orthopedics, Department of Surgery King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia; Abstract published in proceedings of 8<sup>th</sup> Saudi Association of Neurological Surgery (SANS) & National Neuroscience Institute (NNI-KFMC) Annual Meeting, Riyadh, Saudi Arabia. April 15-17, 2014, (S6), page 34.

### **34. “Intraoperative Neurophysiological Monitoring during Sacrectomy Procedures”**

**Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>;** Sami Al Eissa, MD<sup>2</sup>; Anila F Jahangiri, PhD<sup>3</sup>; Amro Al-Habib, MD, FRCSC, MPH<sup>4</sup>

<sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Division of Orthopedics, Department of Surgery; <sup>3</sup>Department of Experimental Medicine, King Abdullah International Medical Research Center; King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia; <sup>4</sup>Neurosurgery Division, Department of Surgery, College of Medicine, King Saud University, Riyadh, Saudi Arabia. Abstract published in proceedings of 8<sup>th</sup> Saudi Association of Neurological Surgery (SANS) & National Neuroscience Institute (NNI-KFMC) Annual Meeting, Riyadh, Saudi Arabia. April 15-17, 2014, (F6) page 106.

### **35. “Preventing Lower Cranial Nerve Injuries during Fourth Ventricle Tumor Resection by IONM”**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>;** Mazhar Minhas, MD, CNIM<sup>2</sup>; John Jane Jr, MD<sup>3</sup>. <sup>1</sup>Division of Neurology, Dept. of Medicine; King Abdulaziz Medical City, King Fahad National Guard Hospital, Riyadh, Saudi Arabia; <sup>2</sup>Impulse Monitoring Inc., Columbia, MD, USA; <sup>3</sup>University of Virginia Medical Center, Dept. of Neurosurgery, Charlottesville, VA, USA. Abstract published in proceedings of 8<sup>th</sup> Saudi Association of Neurological Surgery (SANS) & National Neuroscience Institute (NNI-KFMC) Annual Meeting, Riyadh, Saudi Arabia. April 15-17, 2014, (F8) page 108.

### **36. “Anterior-Posterior Resection of Sacral Tumor with Computer Navigation System”**

Anila F Jahangiri, PhD<sup>1,2</sup>; **Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>;** <sup>3</sup>. <sup>1</sup>Department of Experimental Medicine, King Abdullah International Medical Research Center, Riyadh, Saudi Arabia; <sup>2</sup>Jahangiri Consulting LLC, Charlottesville, VA, USA; <sup>2</sup>Division of Neurology, Department of Medicine; King Fahad National Guard Hospital, Riyadh, Saudi Arabia; Abstracts published in proceeding of NEBEC 2014: 40<sup>th</sup> Annual Northeast Bioengineering Conference. Boston, MA. April 2014.

### **37. “Intraoperative Neurophysiological Monitoring during Sacrectomy Procedures.”**

**Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>;** Sami Al Eissa, MD<sup>2</sup>; Anila F Jahangiri, PhD<sup>3</sup>; Amro Al-Habib, MD, FRCSC, MPH<sup>4</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Division of Orthopedics, Department of Surgery; <sup>3</sup>Department of Experimental Medicine, King Abdullah International Medical Research Center; King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia; <sup>4</sup>Neurosurgery Division, Department of Surgery, College of Medicine, King Saud

University, Riyadh, Saudi Arabia. Abstract published in the proceeding of the 25<sup>th</sup> ASNM annual meeting 2014. Chicago, IL. May 2014.

### **38. “Early Detection of Pedicle Screw related Spinal Cord Injury by Intraoperative Neurophysiological Monitoring (IONM)”**

**Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>1**; Muhammad Sheryar, MBBS<sup>2</sup>; Yaser Al Behairy, MD, FRCSC<sup>4</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Department of Anesthesia; <sup>3</sup>Division of Orthopedics, Department of Surgery King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia. Abstracts published in the proceeding of 25<sup>th</sup> ASNM annual meeting 2014. Chicago, IL. May 2014.

### **39. “Early Detection of Pedicle Screw related Spinal Cord Injury by Intraoperative Neurophysiological Monitoring (IONM)”**

**Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>1**; Muhammad Sheryar, MBBS<sup>2</sup>; Yaser Al Behairy, MD, FRCSC<sup>4</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Department of Anesthesia; <sup>3</sup>Division of Orthopedics, Department of Surgery King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia. Abstracts published in the proceeding of ASET annual meeting 2014. Asheville, NC. Aug 2014. Page 14.

### **40. “Continuous Intraoperative Neurophysiological Monitoring (IONM) For Early Detection of Pedicle Screw related Spinal Cord Injury”**

**Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>1**; Muhammad Sheryar, MBBS<sup>2</sup>; Yaser Al Behairy, MD, FRCSC<sup>4</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Department of Anesthesia; <sup>3</sup>Division of Orthopedics, Department of Surgery King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia. Abstracts published in the proceeding of ISIN (International Society of Neurophysiological Monitoring) annual meeting 2014. Istanbul, Turkey. Oct 2014. Page.

### **41. “Utilizing Longer Intramuscular Needle Pair Electrodes: What are we really missing in our Intraoperative Muscle Recordings?”**

**Faisal R Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>**; Division of Neurology, Department of Medicine; Department of Surgery King Fahad National Guard Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia. Abstracts published in the proceeding of ASET annual meeting 2015. Weston, FL. July-Aug 2015.

### **42. A Vertebral Column Resection (VCR) for Kyphoscoliosis: An Intraoperative Neurophysiological Monitoring (IONM) Alert**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>1**; Sami Al Eissa, MD<sup>2</sup>; Samir Al Sayegh, MD<sup>2</sup>; Fahad Al Helal, MD<sup>2</sup>; Shmoukh A. M. Al-Sharif<sup>3</sup>; Monerah M. Annaim<sup>3</sup>; Tanweer Aziz, MD<sup>4</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Division of Orthopedics, Department of Surgery; <sup>3</sup>College of Medicine-Female, KSAU-HS; <sup>4</sup>Department of Anesthesiology; King Abdulaziz Medical City, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia. Abstracts published in the proceeding of ASNM annual meeting 2016. Chicago, IL. May 2016.

### **43. A Vertebral Column Resection (VCR) for Kyphoscoliosis: An Intraoperative Neurophysiological Monitoring (IONM) Alert**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN<sup>M</sup>1**; Sami Al Eissa, MD<sup>2</sup>; Samir Al Sayegh, MD<sup>2</sup>; Fahad Al Helal, MD<sup>2</sup>; Shmoukh A. M. Al-Sharif<sup>3</sup>; Monerah M. Annaim<sup>3</sup>; Tanweer Aziz, MD<sup>4</sup>. <sup>1</sup>Division of Neurology, Department of Medicine; <sup>2</sup>Division of Orthopedics, Department of Surgery; <sup>3</sup>College of Medicine-Female, KSAU-HS; <sup>4</sup>Department of Anesthesiology; King Abdulaziz Medical City, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia. Abstract published in the proceeding of the ASET annual meeting 2016. Pittsburg, PA. Aug 2016. p.

### **44. Benefit of Intraoperative Neurophysiological Monitoring (IONM) in a Pediatric Patient With Spinal Dysmorphism, Split Cord and Scoliosis**

**Faisal R. Jahangiri**,<sup>1,2</sup>, Samir Al Sayegh<sup>3</sup>, Moutasem Azzubi<sup>4</sup>, Abdulrahman M. Alrajhi<sup>5</sup>, Monerah M. Annaim<sup>6</sup>, Shmoukh A. Al Sharif<sup>6</sup>, Tanweer Aziz<sup>7</sup>, Sami Al Eissa<sup>3</sup>. <sup>1</sup>Division of Neurology, Dept. of Medicine; <sup>3</sup>Division of Orthopedics, Dept. of Surgery; <sup>4</sup>Division of Neurosurgery, Dept. of Surgery; <sup>6</sup>College of Medicine-Female, KSAU-HS; <sup>7</sup>Dept. of Anesthesia, King Abdulaziz Medical City, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia; <sup>5</sup>College of Medicine – King Saud University, Riyadh, Saudi Arabia; <sup>2</sup>Jahangiri Consulting LLC, Charlottesville, Virginia, USA. Abstract published in the proceeding of the ASET annual meeting 2017. Tuscon, AZ. Aug 2017.

#### **45. IONM During Hip Arthroscopic Repair Surgeries.**

Kathryn Overzet CNIM<sup>1</sup>; Mark Kazewych MD<sup>2</sup>; **Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM<sup>1</sup>**; <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX; <sup>2</sup>Baylor Orthopedic and Spine Hospital, Arlington, TX. Abstract published in the proceeding of the ASNM annual meeting 2018. Orlando, FL, Feb 2018.

#### **46. Incidence of IONM Data Changes Due to Positioning in 4577 Surgeries.**

Kathryn Overzet CNIM<sup>1</sup>; **Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM<sup>1</sup>**. <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX. Abstracts published in the proceeding of ASNM annual meeting 2018. Orlando, FL, Feb 2018.

#### **47. Motor Evoked Potentials (MEP) Recordings from Urethral Electrodes.**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM<sup>1,2</sup>**; Justin W. Silverstein, DHSC, CNIM<sup>3</sup>; Zachariah M. George MD<sup>4</sup>; Sami Al Eissa, MD<sup>5</sup>. <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX; <sup>2</sup>Division of Neurology, King Abdulaziz Medical City, Riyadh, Saudi Arabia; <sup>3</sup>Neuroprotective Solutions, Long Island, NY; <sup>4</sup>Neurological Surgery PC, Long Island, NY; <sup>5</sup>Division of Orthopedics, Dept. of Surgery, King Abdulaziz Medical City, Riyadh, Saudi Arabia; Abstracts published in the proceedings of ASNM annual meeting 2018. Orlando, FL, Feb 2018.

#### **48. IONM During Hip Arthroscopic Repair Surgeries.**

Kathryn Overzet CNIM<sup>1</sup>; Mark Kazewych MD<sup>2</sup>; **Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM<sup>1</sup>**. <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX; <sup>2</sup>Baylor Orthopedic and Spine Hospital, Arlington, TX. Abstracts published in the proceeding of ASET annual meeting 2018. New Orleans, LA, Aug 2018.

#### **49. Incidence of IONM Data Changes Due to Positioning in 4577 Surgeries.**

Kathryn Overzet CNIM<sup>1</sup>; **Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM<sup>1</sup>**. <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX. Abstracts published in the proceeding of ASET annual meeting 2018. New Orleans, LA, Aug 2018.

#### **50. Motor Evoked Potentials (MEP) Recordings from Urethral Sphincter Muscles (USMEP).**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM<sup>1,2</sup>**; Justin W. Silverstein, DHSC, CNIM<sup>3</sup>; Zachariah M. George MD<sup>4</sup>; Sami Al Eissa, MD<sup>5</sup>, Izabela Tarasiewicz, MD, FRCS (C)<sup>6</sup>. <sup>1</sup>Axis Neuromonitoring LLC, Richardson, TX; <sup>2</sup>Neuroprotective Solutions, Long Island, NY; <sup>3</sup>Neurological Surgery PC, Long Island, NY; <sup>4</sup>Division of Orthopedics, Dept. of Surgery, King Abdulaziz Medical City, Riyadh, Saudi Arabia; <sup>5</sup>Dept. of Neurosurgery, University of Texas Health Science Center, San Antonio, TX. Abstracts published in the proceedings of ASET annual meeting 2018. New Orleans, LA, Aug 2018.

#### **51. Motor Evoked Potentials (MEP) Recordings from Urethral Sphincter Muscles (USMEP).**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM**; Justin W. Silverstein, DHSC, CNIM; Zachariah M. George MD; Sami Al Eissa, MD, Izabela Tarasiewicz, MD, FRCS (C). Abstracts published in the proceedings of ASNM annual meeting 2019. Chicago, IL, May 2019.

#### **52. Adjuncting Linked Quadri-polar (LQP) and Preconditioning Stimulation Technique to Improve TCeMEPs During Spinal Tumor Resection. a Case Report**

Vizmary J. Montes Pena, MD, MS; **Faisal Jahangiri, MD, CNIM, D.ABNM, FASN, FASET**; Faye Alenazy; Saad AlQahtani, MD, MEd, FRCSC; David Pinilla Arias, MD; Muhammad Tariq, MBBS, FCPS, FCARCI. Abstract published in the proceedings of the American Clinical Neurophysiology (ACNS) annual meeting 2021. Virtual, Feb 2021, p 38.

### **53. Optimizing TCeMEP Stimulation for Intraoperative Neurophysiological Monitoring (IONM) in Pediatric Patients. a Case Report**

Vizmary J. Montes Pena, MD, MS; **Faisal Jahangiri, MD, CNIM, D.ABNM, FASN, FASET**; Faye Alenazy; Wael A. Alshaya, MBBS, FRCSC; Samir O. Alsayegh, MBBS; Mejahed Darwish, MBChB. Abstract published in the proceedings of the American Clinical Neurophysiology (ACNS) annual meeting 2021. Virtual, Feb 2021, p 39.

### **54. Protecting the Visual Pathways During Optic Nerve Surgery Using Intraoperative Visual Evoked Potentials (VEP)**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN, FASET**; Sidra Ilyas, MD; Rabehah A. Asdi, BS; Esther Escobedo, MS, CNIM; Michael Seals, MD. Abstract published in the proceedings of American Clinical Neurophysiology (ACNS) annual meeting 2021. Virtual, Feb 2021, p 39.

### **55. Intraoperative Triggered Electromyography Recordings from the External Urethral Sphincter Muscles During Spine Surgeries**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN, FASET**; Rabehah A. Asdi, BS; Izabela Tarasiewicz, MD, FRCSC®; Moutasem Azzubi, MD. . Abstract published in the proceedings of American Clinical Neurophysiology (ACNS) annual meeting 2021. Virtual, Feb 2021, p 42.

### **56. Multimodality Intraoperative Neurophysiological Monitoring (IONM) During Shoulder Surgeries**

**Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN, FASET**; James Blaylock, DC, CNIM; Nida Qadir, MD; Jason A. Ramsey, MD. Abstract published in the proceedings of American Clinical Neurophysiology (ACNS) annual meeting 2021. Virtual, Feb 2021, p 43.

### **57. Events and Alerts Identified by IONM in 2,599 Lumbar Surgeries.**

**Faisal R. Jahangiri MD, CNIM, D.ABNM, FASN, FASET**, Kathryn Overzet, Hiral Gorasia, Haley Puryear, Tal Allouche, Elizabeth Ekvall, John Moorman, Nicholas Bathurst. Abstract published in the proceedings of The 30<sup>th</sup> Annual Virtual Meeting of the American Society of Neurophysiological Monitoring (ASNM), May 2021.

### **58. Motor Evoked Potentials (MEP) Alerts in Extradural Lumbar Surgeries.**

**Faisal R. Jahangiri MD, CNIM, D.ABNM, FASN, FASET**, Kathryn Overzet, Hiral Gorasia, Haley Puryear, Tal Allouche, Elizabeth Ekvall, John Moorman. Abstract published in the proceedings of The 30<sup>th</sup> Annual Virtual Meeting of the American Society of Neurophysiological Monitoring (ASNM), May 2021.

### **59. Distal Saphenous Somatosensory Evoked Potentials loss and Recovery in Open Anterior Hip Surgery.**

Kathryn Overzet, MS, CNIM; Angela Goodlin, BS; **Faisal R. Jahangiri MD, CNIM, D.ABNM, FASN, FASET**. Abstract published in the proceedings of The 30<sup>th</sup> Annual Virtual Meeting of the American Society of Neurophysiological Monitoring (ASNM), May 2021.

### **60. Pediatric Intraoperative Neuromonitoring: Optimizing Transcranial electrical Motor Evoked Potentials (TCeMEP) stimulation parameters to improve monitoring reliability.**

Vizmary J. Montes Pena MD, MS; Faye Alenazy; Dr. Wael A. Alshaya, MBBS, FRCSC; Dr. Samir O. AlSayegh, MBBS; Dr. **Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASN, FASET**; Dr. Ernesto Lima, MD, CNIM, D.ABNM; Dr. Bernard Cohen, PhD,

FASNM, FACNS. Abstract published in the proceedings of The 30th Annual Virtual Meeting of the American Society of Neurophysiological Monitoring (ASNM), May 2021.

### **61. Adjuncting Linked Quadri-polar (LQP) and Preconditioning Stimulation Technique to Improve TCeMEPs During Spinal Tumor Resection. a Case Report**

Vizmary J. Montes Pena, MD, MS; **Faisal Jahangiri, MD, CNIM, D.ABNM, FASNM, FASET**; Faye Alenazy; Saad AlQahtani, MD, MEd, FRCSC; David Pinilla Arias, MD; Muhammad Tariq, MBBS, FCPS, FCARCI. Abstract published in the proceedings of The 2nd Joint meeting of the Spanish and Finnish Societies of Clinical Neurophysiology, Jun 2021. Virtual.

### **62. Optimizing TCeMEP Stimulation for Intraoperative Neurophysiological Monitoring (IONM) in Pediatric Patients. a Case Report**

Vizmary J. Montes Pena, MD, MS; **Faisal Jahangiri, MD, CNIM, D.ABNM, FASNM, FASET**; Faye Alenazy; Wael A. Alshaya, MBBS, FRCSC; Samir O. Alsayegh, MBBS; Mejahed Darwish, MBChB. . Abstract published in the proceedings of The 2nd Joint meeting of the Spanish and Finnish Societies of Clinical Neurophysiology, Jun 2021. Virtual.

### **63. Events and Alerts Identified by IONM in 2,599 Lumbar Surgeries**

**Faisal R. Jahangiri MD, CNIM, D.ABNM, FASNM, FASET**, Kathryn Overzet, Hiral Gorasia, Haley Puryear, Tal Allouche, Elizabeth Ekvall, John Moorman, Nicholas Bathurst. Abstract published in the proceedings of World Congress on Neurorehabilitation, Jul 2021. Virtual, Paris, France.

### **64. Effect of Dexmedetomidine on Motor Evoked Potentials in the Adult Population: Systematic Review and Meta-Analysis.**

**Jahangiri, F. R., & Voon, A. Y. (2024).** Effect of Dexmedetomidine on Motor Evoked Potentials in the Adult Population: Systematic Review and Meta-Analysis. ASNM Annual Meeting, Washington, DC. May 17-19, 2024.

### **65. Facial Nerve Monitoring During Parotidectomy: A Case Series**

Nadeem, W., Khattak, W. H., Jahangiri, R. H., Asad, H., Farooq, L., Blaylock, J., Cronic-Solano, L., Garza, R. R., Fell, W. R., Basha, I. S., & **Jahangiri, F. R. (2023).** Facial Nerve Monitoring During Parotidectomy: A Case Series. ASNM Annual Meeting, Washington, DC. May 17-19, 2024

### **Citations Per Google Scholar: 634**

2011	04
2012	13
2013	16
2014	18
2015	26
2016	26
2017	37
2018	21
2019	28
2020	43
2021	53
2022	57
2023	72
2024	84
2025	102
2026	8

## Scholarly Online Publications

Peer-Reviewed & Educational Blog Publications in Clinical Neurophysiology and Intraoperative Neurophysiological Monitoring (IONM)

### First-Author Publications

- Jahangiri, F. R. (2018, January 24). *IONM during hip arthroscopic repair surgeries*. Axis Neuromonitoring Blog. <https://blog.axisneuromonitoring.com>
  - Jahangiri, F. R. (2018, February 7). *Incidence of IONM data changes due to patient positioning in 4,577 surgeries*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, March 5). *Motor evoked potential (TCeMEP) recordings from urethral electrodes*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, April 16). *Utilizing longer intramuscular needle pair electrodes: What are we missing in intraoperative muscle recordings?* Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, May 8). *Continuous intraoperative neurophysiological monitoring for early detection and prevention of pedicle screw-related spinal cord injury*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, June 4). *Language mapping during awake brain surgeries*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, July 24). *IONM during selective dorsal root rhizotomy procedures for treatment of spasticity in cerebral palsy*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, August 7). *Multimodality IONM for prevention of cranial nerve injuries during high-risk brain surgeries*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, September 11). *Train-of-four monitoring: Are we doing it the right way?* Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, October 2). *Multimodality IONM in anterior hip arthroscopic repair surgeries*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2018, November 1). *Vertebral column resection for kyphoscoliosis in Ehlers-Danlos syndrome: An IONM alert case*. Axis Neuromonitoring Blog.
- 
- Jahangiri, F. R. (2019, January 2). *Positioning-related IONM changes: Review of 5,894 surgeries*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, March 27). *Motor evoked potentials from urethral sphincter muscles during spine surgery*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, April 25). *Utilizing longer intramuscular needle pair electrodes*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, May 30). *Triggered EMG recordings from urethral electrodes*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, June 19). *Triggered EMG recordings from external urethral sphincter muscles during spine surgery*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, July 29). *Improving patient outcomes using IONM during spine surgery: Case report*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, August 6). *Improving patient outcomes using IONM during hip replacement surgery: Case report*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, September 6). *Radial nerve somatosensory evoked potentials during shoulder surgery*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, October 30). *Recurrent laryngeal nerve EMG monitoring during cervical spine surgery*. Axis Neuromonitoring Blog.

- Jahangiri, F. R. (2019, November 27). *EMG monitoring during lateral lumbar spine surgery*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2019, December 17). *Visual pathway protection using intraoperative visual evoked potentials*. Axis Neuromonitoring Blog.
- 
- Jahangiri, F. R. (2020, January 11). *IONM during trigeminal schwannoma surgery*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2020, February 15). *Visual evoked potentials during optic nerve surgery*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2020, March 13). *Bulbocavernosus reflex monitoring during intramedullary conus tumor surgery*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2020, April 9). *Mapping of the somatosensory cortex*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2020, June 3). *IONM during peripheral nerve hand surgeries*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2020, July 30). *IONM in pediatric tibial and fibular osteotomy surgeries*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2020, August 27). *IONM for brainstem tumor surgeries*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2020, September 30). *Motor cortex mapping*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2020, October 30). *EMG monitoring during lumbar laminectomy and decompression*. Axis Neuromonitoring Blog.
- 
- Jahangiri, F. R. (2021, July 1). *Distal stimulation site at medial tibia for saphenous nerve SSEPs in lumbar procedures*. Axis Neuromonitoring Blog.
  - Jahangiri, F. R. (2021, August 19). *IONM alerts in 2,599 lumbar spine procedures*. Axis Neuromonitoring Blog.

### **Dr. Jahangiri's Educational Blog**

- Jahangiri, F. R. (2024, March 12). *Trapezius monitoring for EMG and TCEMEP*. Global Innervation.
- Jahangiri, F. R. (2024, May 29). *Intraoperative neurophysiological monitoring in pelvic floor surgery*. Global Innervation.
- Jahangiri, F. R. (2024, August 10). *Waves VI and VII of brainstem auditory evoked potentials*. Global Innervation.
- Jahangiri, F. R. (2025, May). *Optimizing cranial nerve protection: Multimodality IONM in high-risk brain surgeries*. Global Innervation.
- Jahangiri, F. R. (2025, October). *Microsleep: The hidden danger of sleep deprivation*. Global Innervation.

### **Co-Authored Publications**

- Liang, M., & Jahangiri, F. R. (2022, July 24). *Intraoperative neuromonitoring for tethered cord syndrome*. Podia Community.
- Jahangiri, F. R., & Liang, M. (2022, August 16). *Split cord malformation and neuromonitoring*. Podia Community.
- Alvarez, C. M., & Jahangiri, F. R. (2022, August 30). *Facial paralysis and the role of neuromonitoring*. Podia Community.
- Liang, M., & Jahangiri, F. R. (2022, September 13). *Intracranial aneurysms and neuromonitoring*. Podia Community.
- Asad, H., & Jahangiri, F. R. (2025). *Safeguarding the voice: The role of intraoperative neuromonitoring in thyroidectomy*. Global Innervation.
- Fine, S. E., & Jahangiri, F. R. (2025). *From wake-up tests to MEPs: Evolution of spinal cord monitoring*. Global Innervation.

- Jahangiri, F. R., & Ali, A. (2025). *IONM in carotid endarterectomy*. Global Innervation.

#### Educational Digital Monographs / Online Chapters

- Memon, S. F., & Jahangiri, F. R. (2022). Basics of EEG. Neurology Pocketbook.
- Umair, M., Asghar, M. R., Jahangiri, F. R., & Kalia, J. (2022). Quantitative EEG: An introduction. Neurology Pocketbook.

#### Scholarly Impact

- Authored and co-authored 80+ clinical educational publications.
- Focus areas include multimodality IONM, surgical neuroprotection, and neurophysiology education.
- Publications utilized in international neuromonitoring training and fellowship curricula.

#### **Master's Thesis Supervision:**

*Efficacy of intraoperative neurophysiological monitoring in detecting and preventing injury during high-risk brain aneurysm surgeries.*

MS Thesis: Sohail Razaq  
External supervisor, Wayne State University, Detroit, Michigan, USA. 2005.

#### **Invited Guest Speaker:**

- |    |          |   |                        |
|----|----------|---|------------------------|
| 1) | Nov 2025 | Clinical Neurophysiology Society of Brazil<br>IONM in Colorectal Surgeries  | Belo Horizonte, Brazil |
| 2) | Nov 2025 | Clinical Neurophysiology Society of Brazil<br>Updates in Pediatric Neuromonitoring  | Belo Horizonte, Brazil |
| 3) | Nov 2025 | Clinical Neurophysiology Society of Brazil<br>Enhancing the Effectiveness of Monitoring the Robust Bulbocavernosus Reflex in Cauda Equina Surgeries: Harnessing Machine Learning to Decode the Complexity of Stimulation Parameters | Belo Horizonte, Brazil |
| 4) | Nov 2025 | Clinical Neurophysiology Society of Brazil<br>Assessing the Role of ONM in Preserving Pelvic Floor Integrity During High-Risk Surgeries   | Belo Horizonte, Brazil |
| 5) | Nov 2025 | SIONCON 2025<br>Advancement in IONM. Thinking outside the box.  | Bengaluru, India       |
| 6) | Oct 2025 | SSET Annual Meeting<br>IONM Correlating Cranial Nerves with CoMEP Monitoring  | Myrtle Beach, SC, USA  |
| 7) | Oct 2025 | SSET Annual Meeting<br>EEG The Neurobiology of Nocturnal Woes. The Brain's Role in Sleep.   | Myrtle Beach, SC, USA  |
| 8) | Sep 2025 | Ohio Neurodiagnostic Society (ONDS)<br>Transcranial vs Direct Cortical Motor Evoked Potentials:   | Virtual, USA           |

Enhancing Patient Safety and Surgical Precision

- |              |   |                      |
|--------------|---|----------------------|
| 9) Sep 2025  | Ohio Neurodiagnostic Society (ONDS)<br>Motor Evoked Potentials: Exploring Applications Beyond Spine   | Virtual, USA         |
| 10) Apr 2025 | ASNM Webinar<br>Somatosensory Evoked Potentials (SEP) ASNM Guidelines   | Virtual, USA         |
| 11) Feb 2025 | Central Society of Electroneurodiagnostic Technologists (CSET)<br>Principals and Use of Cortical Mapping  | Virtual, USA         |
| 12) Dec 2024 | Pre-Conference IONM Workshop<br>Saudi Spine Society 8 <sup>th</sup> Annual Meeting<br><i>"Integrating IONM into Spine Surgeries"</i>                                  | Riyadh, KSA          |
| 13) Dec 2024 | Pre-Conference IONM Workshop<br>Saudi Spine Society 8 <sup>th</sup> Annual Meeting<br><i>"Five Spine Case Review – Data Review"</i>                                   | Riyadh, KSA          |
| 14) Nov 2024 | IONM Course & Training Workshop 2024<br>Neurophys Limited & Global Innervation LLC<br><i>"Introduction to IONM"</i>   | London, UK           |
| 15) Nov 2024 | IONM Course & Training Workshop 2024<br>Neurophys Limited & Global Innervation LLC<br><i>"IONM For Spine Surgeries"</i>   | London, UK           |
| 16) Nov 2024 | IONM Course & Training Workshop 2024<br>Neurophys Limited & Global Innervation LLC<br><i>"Brain Anatomy &amp; Tractography"</i>                                       | London, UK           |
| 17) Nov 2024 | IONM Course & Training Workshop<br>Neurophys Limited & Global Innervation LLC<br><i>"Anesthesia: Neurophysiologist's View"</i>  | London, UK           |
| 18) Nov 2024 | OSDS 2024 Annual Conference<br>Ohio NeuroDiagnostic Society - ONDS<br><i>"Transcortical vs Direct Cortical Stimulation"</i>   | Cincinnati, OH, USA  |
| 19) Oct 2024 | SSET Annual Meeting<br><i>"Optimizing Neuro Anesthesia: Strategies and Best Practices"</i>  | Nashville, TN, USA   |
| 20) Oct 2024 | CNSSA 2024 Annual Meeting<br>Clinical Neurophysiological Society of South Africa<br><i>"Hypoglossal nerve monitoring: Treatment of Obstructive Sleep Apnea (OSA)"</i> | Durban, South Africa |
| 21) Oct 2024 | CNSSA 2024 Annual Meeting<br>Clinical Neurophysiological Society of South Africa<br><i>"Advancement in IONM: Thinking outside the Box"</i>                            | Durban, South Africa |

- 22) May 2024 California Neurodiagnostic Society Annual Meeting Virtual, USA  
*"Motor Evoked Potentials: Exploring Applications Beyond Spine"*
- 23) May 2024 California Neurodiagnostic Society Annual Meeting Virtual, USA  
*"Train of Four (TOF): Are We Doing the Right Way?"*
- 24) May 2024 ASNM Annual Meeting Washington, DC, USA  
 American Society of Neurophysiological Monitoring-ASNMM  
*"Transcortical vs Direct Cortical Stimulation"*
- 25) May 2024 Arkana Online Symposium Freiburg, Germany  
 Fundamentals of IONM  
*"Principles and Use of Supratentorial Mapping"*
- 26) Apr 2024 Global Innervation & Neurology Solutions (Online Webinar) Riyadh, Saudi Arabia  
*"The Fundamental Impact of IONM in Medicine"*
- 27) Dec 2023 NGHA Annual Spine Day Jeddah, KSA  
*"IONM For Spine Surgeries"*
- 28) Nov 2023 2<sup>nd</sup> International Basic Medical Sciences Conference Peshawar, Pakistan  
 BmedCon'23 "A Spectrum of Discoveries"  
*"Advancement in Neuroscience: Surgical Neurophysiology - IONM"*
- 29) Nov 2023 Pre-Conference IONM Workshop Riyadh, KSA  
 Saudi Spine Society 7<sup>th</sup> Annual Meeting  
*"Spine Case Review to Make Surgeries Safer"*
- 30) Nov 2023 Pre-Conference IONM Workshop Riyadh, KSA  
 Saudi Spine Society 7<sup>th</sup> Annual Meeting  
*"Advancement of IONM For Spine Surgeries"*
- 31) Oct 2023 SSET Annual Meeting San Antonio, TX, USA  
*"Advancement in IONM: Neuromonitoring outside the box"*
- 32) Oct 2023 Arkana Educational Course Cincinnati, OH, USA  
 Cincinnati Children's Hospital  
*"Mapping of the Brain"*
- 33) Jun 2023 California Neurodiagnostic Society (CNS) Virtual Annual Meeting Virtual, CA, USA  
*"Pelvic Floor Neuromonitoring: Indications, Methods & Data Analysis"*
- 34) Jun 2023 California Neurodiagnostic Society (CNS) Virtual Annual Meeting Virtual, CA, USA  
*"Advancement in IONM: Neuromonitoring Outside the Box"*
- 35) May 2023 ASNM Annual Meeting Dallas, TX, USA  
 American Society of Neurophysiological Monitoring-ASNMM  
*"Big Debate: Penfield vs Taniguchi Mapping"*

- 36) May 2023 ASNM Annual Meeting Dallas, TX, USA  
American Society of Neurophysiological Monitoring-ASNM  
*“Cortical Mapping: Do’s & Don’ts”*
- 37) Jan 2023 Live Neuromonitoring Workshop in Spine Surgery Peshawar, Pakistan  
Department of Spine Surgery, Hayatabad Medical Complex
- 38) Dec 2022 Pre-Conference IONM Workshop Jeddah, KSA  
Saudi Spine Society 7<sup>th</sup> Annual Meeting  
*“Best Practices in IONM for Spine Surgeries”*
- 39) Dec 2022 Pre-Conference IONM Workshop Jeddah, KSA  
Saudi Spine Society 7<sup>th</sup> Annual Meeting  
*“Spine Case Reviews”*
- 40) Nov 2022 Keynote Speaker Virtual/Riyadh, Saudi Arabia  
6<sup>th</sup> Eastern Epilepsy Conference/12<sup>th</sup> Saudi Epilepsy Conference  
*“Mapping of the Brain”*
- 41) Nov 2022 Keynote Speaker Virtual/Riyadh, Saudi Arabia  
6<sup>th</sup> Eastern Epilepsy Conference/12<sup>th</sup> Saudi Epilepsy Conference  
*“Neuronavigation and Neurophysiology in Epilepsy”*
- 42) May 2022 ASNM Annual Meeting Clearwater Beach, FL, USA  
American Society of Neurophysiological Monitoring-ASNM  
*“The Unexpected – Interactive Case Studies”*
- 43) May 2022 ASNM Annual Meeting Clearwater Beach, FL, USA  
American Society of Neurophysiological Monitoring-ASNM  
*“Favorite Paper of the Year”*
- 44) May 2022 ASNM Annual Meeting Clearwater Beach, FL, USA  
American Society of Neurophysiological Monitoring-ASNM  
*“Big Debate: Routine Use of CoMEPs”*
- 45) Sep 2021 ASNM Fall Virtual Symposium Virtual, USA  
American Society of Neurophysiological Monitoring-ASNM  
*“Spotlight on Recent Literature: Arterial collateral anatomy predicts the risk for intra operative changes in somatosensory evoked potentials in patients undergoing carotid endarterectomy: a prospective cohort study. Mandy D. Müller et al”*
- 46) May 2021 ASNM 30<sup>th</sup> Annual Virtual Meeting Virtual, USA  
American Society of Neurophysiological Monitoring-ASNM  
*“Mapping of the Motor Cortex: Penfield vs. Taniguchi”*
- 47) Feb 2021 ASNM Winter Virtual Symposium Virtual, USA  
American Society of Neurophysiological Monitoring-ASNM  
i. *“Application of Train of Four (TOF)”*
- 48) Jan 2021 Axis Neuromonitoring Annual Winter Workshop & Symposium Virtual, TX, USA

- i. *"Monopolar vs. Bipolar Stimulation"*
- 49) Jan 2021 Axis Neuromonitoring Annual Winter Workshop & Symposium  
*"MEP for Brain Surgeries"* Virtual, TX, USA
- 50) Jan 2021 Axis Neuromonitoring Annual Winter Workshop & Symposium  
*"SSEP: Brain vs. Spine Surgeries"* Virtual, TX, USA
- 51) Dec 2020 Comprehensive EEG Course  
*"Neuroanatomy for Electroencephalography (EEG)"* Virtual, Riyadh, KSA
- 52) Nov 2020 Pre-Conference IONM Workshop  
Saudi Spine Society 4<sup>th</sup> Annual Meeting  
i. *"IONM For Spinal Instrumentation Surgeries"* Virtual, Riyadh, KSA
- 53) Sep 2020 ASNM Fall Virtual Symposium  
i. American Society of Neurophysiological Monitoring-ASNM  
ii. *"Spine IONM: Diagnostic Vs. Therapeutic Efficacy"* Virtual, USA
- 54) Feb 2020 ASNM Winter Virtual Symposium  
American Society of Neurophysiological Monitoring-ASNM  
i. *"Bipolar and Monopolar Brain Stimulation"* Virtual, USA
- 55) Jan 2020 Axis Neuromonitoring Annual Winter Seminar & Workshop  
i. *"IONM Case Presentations"* Dallas, TX, USA
- 56) Jan 2020 Axis Neuromonitoring Annual Winter Seminar & Workshop  
i. *"Vascular Surgeries: What and How to Monitor?"* Dallas, TX, USA
- 57) Jan 2020 Axis Neuromonitoring Annual Winter Seminar & Workshop  
*"Troubleshooting for IONM"* Dallas, TX, USA
- 58) Jan 2020 Axis Neuromonitoring Annual Winter Seminar & Workshop  
i. *"Anesthesia in Depth"* Dallas, TX, USA
- 59) Sep 2019 ASNM Fall Symposium  
i. American Society of Neurophysiological Monitoring  
ii. *"SSEP: Understanding the Waveforms and Their Generators"* Boston, MA, USA
- 60) May 2019 ASNM Annual Meeting  
i. American Society of Neurophysiological Monitoring  
ii. *"Neuromonitoring for Spinal Instrumentation Procedures"* Chicago, IL, USA
- 61) Apr 2019 Atlantic Health Overlook NeuroConference  
*"Neuromonitoring for Awake Craniotomies"* Summit, NJ
- 62) Feb 2019 ASNM Winter Symposium  
i. American Society of Neurophysiological Monitoring  
ii. *"SSEP: Knowing the Pathways, Generators & the Recording Sites"* Westlake Village, CA, USA

- 63) Jan 2019 Axis Neuromonitoring Annual Winter Seminar & Workshops  
*'IONM for Awake Craniotomies'* Dallas, TX, USA
- 64) Jan 2019 Axis Neuromonitoring Annual Winter Seminar & Workshops  
*'IONM for Parotid and Thyroid Surgeries'* Dallas, TX, USA
- 65) Jan 2019 Axis Neuromonitoring Annual Winter Seminar & Workshops  
*"Selective Dorsal Root Rhizotomy & Spinal Cord Mapping"* Dallas, TX, USA
- 66) Jan 2019 Axis Neuromonitoring Annual Winter Seminar & Workshops  
*Hands-on Workshops* Dallas, TX, USA  
*i. Head Measurement: International 10-20 System*  
*ii. Train of Four (TOF)*  
*iii. Brainstem Auditory Evoked Potentials (BAEP)*
- 67) Nov 2018 Pre-Conference IONM Workshop  
Saudi Spine Society 2<sup>nd</sup> Annual Meeting  
*"IONM For Spine"* Jeddah, KSA
- 68) Nov 2018 Saudi Spine Society 2<sup>nd</sup> Annual Meeting  
*"IONM Updates For Spinal Procedures."* Jeddah, KSA
- 69) Nov 2018 SSET Annual Meeting  
*"Parotid and Thyroid Surgery Monitoring Techniques"* Dallas, TX, USA
- 70) Nov 2018 SSET Annual Meeting  
*i. "Monitoring Selective Dorsal Root Rhizotomies"* Dallas, TX, USA
- 71) Aug 2018 ASET Annual Meeting  
*i. The Neurodiagnostic Society*  
*ii. "SSEP: Knowing the Pathways & Recording Sites"* New Orleans, LA, USA
- 72) April 2018 GHSHRM  
*i. Greater Houston Society for Hospital Risk Management*  
*ii. "IONM: A Brief Overview of Science and Benefits"* Houston, TX, USA
- 73) Feb 2018 ASNM Annual Meeting  
*i. American Society of Neurophysiological Monitoring*  
*ii. "Cortical Mapping in Awake Surgeries"* Orlando, FL, USA
- 74) Feb 2018 ASNM Annual Meeting  
*i. American Society of Neurophysiological Monitoring*  
*ii. "Neuromonitoring During Spinal Procedures-Case Reports"* Orlando, FL, USA
- 75) Feb 2018 ASNM Annual Meeting  
*i. American Society of Neurophysiological Monitoring*  
*ii. **Panelist:** Pediatric Neurosurgical Procedures (Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNMM, George Jallo, MD, Veronica Busso, MD, Anthony Sestokas, Ph.D., D.ABNM, FASNMM)* Orlando, FL, USA

- 76) Feb 2018 ASNM Annual Meeting Orlando, FL, USA  
 i. American Society of Neurophysiological Monitoring  
 ii. **Panelist:** *Cortical Mapping (Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM, Mathew Eccher, MD, MS, FAAN, FACNS, Christopher Pace, Ph.D., CNIM)*
- 77) Feb 2018 ASNM Annual Meeting Orlando, FL, USA  
 i. American Society of Neurophysiological Monitoring  
 ii. **Panelist:** *Presidential Speaker Session (Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM, Larry Badler, MBA, LSS-BB, Aatif Hussain, MD, Joseph Moreira, MD, Brett Netherton, MS, CNIM, FASNM, FASET, Lawrence Wierzbowski, AuD, D.ABNM, FASNM)*
- 78) Feb 2018 ASNM Annual Meeting Orlando, FL, USA  
 i. American Society of Neurophysiological Monitoring  
 ii. **Panelist:** *Neuromonitoring During Spinal Surgeries (Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM, Justin Silverstein, DHSc, CNIM, Jay Shils, Ph.D.)*
- 79) Feb 2018 ASNM Annual Meeting Orlando, FL, USA  
 i. American Society of Neurophysiological Monitoring  
 ii. **Panelist:** *Optimizing IONM with Cross Collaboration (Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM, Alexander Razumovsky, Ph.D., FAHA, Joseph Moreira, MD, Antoun Koht, MD)*
- 80) Dec 2017 Pre-Conference IONM Workshop Riyadh, KSA  
 Saudi Spine Society 1<sup>st</sup> Annual Meeting  
 i. *“IONM Alerts in Spinal Procedures: Case Reports & Data Interpretation”*
- 81) May 2017 ASNM Annual Meeting Cleveland, OH, USA  
 i. American Society of Neurophysiological Monitoring  
 ii. *“Neuromonitoring during Minimal Invasive Spine Surgeries”*
- 82) Apr 2017 Neuro Alert – Webinar White Plains, NY, USA  
 i. *Train of Four (TOF): Are We Doing It The Right Way?*
- 83) Mar 2017 SANS IONM Spine Workshop Riyadh, KSA  
 i. *“IONM for Neurosurgical Procedures”*
- 84) Dec 2016 12<sup>th</sup> Saudi Anesthesia Society (SAS) International Anesthesia Conference Riyadh, KSA  
 i. *“Role of IONM for Enhanced Recovery After Anesthesia (ERAA)”*
- 85) May 2016 ASNM Annual Meeting Chicago, IL, USA  
 i. American Society of Neurophysiological Monitoring  
 ii. *“Neuromonitoring during Spine Instrumentation Surgeries”*
- 86) Mar 2016 POA Spine Forum: Second International IONM Workshop Rawalpindi, Pakistan  
 i. Basic Intraoperative Neurophysiological Monitoring (IONM)  
 ii. Hands-on Workshop for Spine Surgeons
- 87) Feb-Mar 2016 Pre-Conference IONM Worksho Riyadh, KSA  
 SANS 10<sup>th</sup> Annual Meeting  
 i. *“IONM for Neurosurgical Procedures”*

- 88) Feb-Mar 2016 Pre-Conference IONM Workshop Riyadh, KSA  
 SANS 10<sup>th</sup> Annual Meeting  
 i. *“Anesthesia for Neurosurgical Procedures”*
- 89) Nov 2015 9<sup>th</sup> APCSS and 1<sup>st</sup> ASA Conjoint Meeting Dubai, UAE  
 i. Asia Pacific Cervical Spine Society (APCSS) & 1<sup>st</sup> Arab Spine Academy (ASA) Meeting  
*Intraoperative Neurophysiological Monitoring (IONM) in Spinal Cord Tumor Surgery*
- 90) Oct 2015 SSET & TNS Joint Annual Meeting Dallas, TX, USA  
 i. Southern Society of Neurophysiological Monitoring (SSET) & Texas Neurodiag Society  
 ii. *Multimodality neurophysiological monitoring during Tibial / Fibular osteotomies for*  
 iii. *preventing peripheral nerve injuries*
- 91) Oct 2015 SSET & TNS Joint Annual Meeting Dallas, TX, USA  
 i. Southern Society of Neurophysiological Monitoring (SSET) & Texas Neurodiag Society  
 ii. *IONM and Interesting Cases*
- 92) Aug 2015 SpecialtyCare – Webinar Roanoke, VA, USA  
 i. *Train of Four (TOF): Are We Doing It The Right Way?*
- 93) July 2015 SpecialtyCare – Webinar Roanoke, VA, USA  
 i. *IONM during DLIF/XLIF Procedures*
- 94) May 2015 Inomed IONM User Meeting Emmendingen, Germany  
 i. Multimodal Intraoperative Neuromonitoring  
 ii. *Neurophysiological Monitoring of the spinal Sensory & Motor pathways: During the Embolization of AVM – Propofol: a safe alternative*
- 95) May 2015 Inomed IONM User Meeting Emmendingen, Germany  
 i. Multimodal Intraoperative Neuromonitoring  
 ii. *Interesting Cases Presentation*
- 96) May 2015 ASNM Annual Meeting Chicago, IL, USA  
 i. American Society of Neurophysiological Monitoring  
 ii. *“Neuromonitoring for Awake Neurosurgery”*
- 97) May 2015 ASNM Annual Meeting Chicago, IL, USA  
 i. American Society of Neurophysiological Monitoring  
 ii. *“Crossing the Hurdle to Take the Baseline: Troubleshooting Tips for Technologists & Readers”*
- 98) Mar 2015 POA Spine Forum: First International IONM Workshop Rawalpindi, Pakistan  
 i. Basic Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons  
 ii. *Introduction to IONM for Spine Surgeons*
- 99) Mar 2015 POA Spine Forum: First International IONM Workshop Rawalpindi, Pakistan

- i. Basic Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons
  - ii. Effects of anesthesia on Intraoperative Neurophysiological Monitoring (IONM)
- 100) Mar 2015 POA Spine Forum: First International IONM Workshop Rawalpindi,  
Pakistan
- i. Basic Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons
  - ii. *Setting a New IONM Program in your Spine Center*
- 101) Mar 2015 SANS: Saudi Association of Neurological Surgeons  
Riyadh, KSA
- i. *Intraoperative Neurophysiological Monitoring Workshop*
- 102) Dec 2014 Spine Update 2014 Conference  
Riyadh, KSA
- i. *Intraoperative Neurophysiological Monitoring Workshop*
- 103) Dec 2014 Spine Update 2014 Conference  
Riyadh, KSA
- i. *"Intraoperative Neurophysiological Monitoring during Scoliosis surgeries:*
  - ii. *A luxury or Necessity?"*
- 104) Nov 2014 4<sup>th</sup> Annual Saudi Epilepsy Society Conference  
Riyadh, KSA
- i. 1<sup>st</sup> Saudi International Stereotactic & Functional Neurosurgery Conference (SES-SFN) Clinical Neurophysiology Workshop II
  - ii. *"Awake Craniotomies and Mapping of Cortical Language Areas"*
- 105) Oct 2014 Inomed Scientific Workshop  
Istanbul, Turkey
- i. *Introduction to Intraoperative Neurophysiological Monitoring (IONM)*
- 106) May 2014 ASNM 25<sup>th</sup> Annual Meeting Chicago,  
IL, USA
- i. American Society of Neurophysiological Monitoring
  - ii. *"Brachial Plexus Mapping"*
- 107) Nov 2013 Safe Passage Neuromonitoring Webinar New York,  
NY, USA
- i. *Neurophysiological Monitoring*
- 108) Nov 2013 21<sup>st</sup> Saudi Neurology Society Annual Meeting: IONM Workshop  
Riyadh, KSA
- i. *Neurophysiological Monitoring during Vascular Surgeries*
- 109) May 2013 ASNM 24<sup>th</sup> Annual Meeting Boston,  
MA, USA
- i. American Society of Neurophysiological Monitoring
  - ii. *"Intraoperative Neurophysiological Monitoring during High-Risk Skull Base Surgeries"*

- 110) Mar 2013 2<sup>nd</sup> Saudi International Conference on Intra Operative Neurophysiology  
Riyadh, KSA  
i. Tufts School of Medicine & King Fahad Medical City,  
ii. *“Preventing Cranial Nerve Injuries during High-Risk Brain Surgeries”*
- 111) Mar 2013 2<sup>nd</sup> Saudi International Conference on Intra Operative Neurophysiology  
Riyadh, KSA  
Tufts School of Medicine & King Fahad Medical City,  
*“Neurophysiologic Monitoring during Spine Surgeries: A luxury or Necessity?”*
- 112) Feb 2013 APPNA MERIT, Riyadh, KSA / Pakistan  
Medical Education & Research International Training & Transfer of Technology  
initiative: Live Webinar Video Lecture: Faculty & Post-graduates of Multiple Medical  
Institutes in Pakistan:  
*“Cranial Nerve Monitoring: Preventing Facial Nerve injuries & Hearing Preservation  
during high-risk brain surgeries.”* Live Video Presentation.
- 113) Sept 2012 IONM Course: 52<sup>nd</sup> Annual Conference Orlando,  
FL, USA  
Southern Society of Electroneurodiagnostic Technologists (SSET)  
*“Cortical Sensory & Motor Mapping: Dual Radial versus Tangential Radial Model”*
- 114) Sep 2012 APPNA MERIT, Riyadh, KSA / Pakistan  
Medical Education & Research International Training & Transfer of Technology  
initiative: Live Webinar Video Lecture: Faculty & Post-graduates of Multiple Medical  
Institutes in Pakistan:  
*“Neurophysiological Monitoring: A Luxury or Necessity.”* Live Video Presentation.
- 115) May 2012 ASNM 23<sup>rd</sup> Annual Meeting Salt Lake City, UT, USA  
American Society of Neurophysiological Monitoring  
*Breakfast with Experts: “Cortical Sensory & Motor Mapping”*
- 116) Feb 2012 King Abdulaziz Medical City, National Guard Health Affairs Riyadh, KSA  
King Saud Bin Abdulaziz University for Health Sciences & Postgraduate Training  
Center  
*“Neurosciences Critical Care” Course & Workshop*
- 117) Oct 2011 King Abdulaziz Medical City, National Guard Health Affairs Riyadh, KSA  
King Saud Bin Abdulaziz University for Health Sciences & Postgraduate Training  
Center  
*“Traumatic Brain Injury (TBI)”*
- 118) Oct 2011 King Abdulaziz Medical City, National Guard Health Affairs Riyadh, KSA  
King Saud Bin Abdulaziz University for Health Sciences & Postgraduate Training  
Center  
*“Neurosciences Critical Care” Course & Workshop*
- 119) May 2011 ASNM 22<sup>nd</sup> Annual Meeting. Orlando, FL, USA  
Panel Co-Chair. American Society of Neurophysiological Monitoring  
*“Monitoring in Underdeveloped Countries”*

- 120) April 2011 APPNA MERIT, Charlottesville, VA, USA / Pakistan  
**Medical Education & Research International Training & Transfer of Technology**  
 initiative: Live Webinar Video Lecture: Faculty & Post-graduates of Multiple Medical  
 Institutes in Pakistan: *“Surgical Neurophysiology: Selective Dorsal Root Rhizotomy*  
*(SDR) for the treatment of Spasticity.”* Live Video Presentation.
- 121) Oct 2010 APPNA MERIT, Charlottesville, VA, USA / Pakistan  
**Medical Education & Research International Training & Transfer of Technology**  
 initiative: Live Webinar Video Lecture: Faculty & Post-graduates of Multiple Medical  
 Institutes in Pakistan:  
*“Anesthesia & Surgical Neurophysiology: Effect of Anesthesia on Intra Operative*  
*Neurophysiological Monitoring (IONM)”*
- 122) Oct 2010 SSET IONM Course: 50<sup>th</sup> Annual Conference Myrtle Beach, SC, USA  
 Southern Society of Electroneurodiagnostic Technologists (SSET)  
*“Neurophysiological Monitoring during Selective Dorsal Root Rhizotomy surgery.”*
- 123) Aug 2010 APPNA MERIT, Charlottesville, VA, USA / Pakistan  
**Medical Education & Research International Training & Transfer of Technology**  
 initiative: Live Webinar Video Lecture: Faculty & Post-graduates of Multiple Medical  
 Institutes in Pakistan: *“Surgical Neurophysiology: An Introduction to Intra Operative*  
*Neurophysiological Monitoring (IONM)”*
- 124) Aug 2010 ASET, 51<sup>st</sup> Anniversary Annual Conference Louisville, KY, USA  
 American Society of Electroneurodiagnostic Technologists (ASET)  
*“Neurophysiological Monitoring during Selective Dorsal Root Rhizotomy surgery.”*
- 125) Aug 2009 ASET, 50<sup>th</sup> Anniversary Annual Conference Phoenix, AZ, USA  
 American Society of Electroneurodiagnostic Technologists (ASET)  
*“Multimodality Neurophysiological monitoring in Spine Surgeries.”*
- 126) April 2009 ASNM 20<sup>th</sup> Annual Meeting Vancouver, Canada  
 American Society of Neurophysiological Monitoring  
*“Protecting the Auditory Pathways in High-Risk Surgeries”*
- 127) Oct 2008 SSET IONM Course Raleigh, NC, USA  
 Southern Society of Electroneurodiagnostic Technologists (SSET)  
*“Cranial Nerve Monitoring in High-Risk Surgeries”*
- 128) July 2008 Rehman Medical Institute (RMI) Peshawar, Pakistan  
 i. *“Advances in Surgeries: Intra Operative Neurophysiological Monitoring in High-Risk*  
*Surgeries”*
- 129) July 2008 SHIFA International Hospital & School of Medicine, Islamabad, Pakistan  
*“Advances in Surgeries: Intra Operative Neurophysiological Monitoring in High Risk*  
*Surgeries”*
- 130) July 2008 Combined Military Hospital (CMH) Rawalpindi, Pakistan

*“Advances in Surgeries: Intra Operative Neurophysiological Monitoring in High-Risk Surgeries”*

- 131) June 2008 Post Graduate Medical Institute, Peshawar, Pakistan  
Khyber Medical University,  
*“Advances in Surgeries: Intra Operative Neurophysiological Monitoring in High Risk Surgeries”*
- 132) June 2008 Ayub Medical Complex Abbottabad, Pakistan  
*“Advances in Surgeries: Intra Operative Neurophysiological Monitoring in High Risk Surgeries”*
- 133) June 2008 Pakistan Institute of Medical Sciences (PIMS) Islamabad, Pakistan  
*“Advances in Surgeries: Intra Operative Neurophysiological Monitoring in High Risk Surgeries”*
- 134) Dec 2004 APPNA Winter Meeting Khyber Medical College, Peshawar, Pakistan  
Association of Physicians of Pakistani Descent in North America  
*“Intraoperative Neurophysiologic Monitoring in High Risk Surgeries”*

**Research Paper & Poster Presentations:**

- 1) Dec 2025 Conference Poster San Diego, CA, USA  
ConditionGen: Controllable EEG Synthesis via Artifact-Conditioned Diffusion  
Hritik Arasu; Faisal Riaz Jahangiri
- 2) Nov 2025 Clinical Neurophysiology Congress Brazil Belo Horizonte, Brazil  
Enhancing the Effectiveness of Monitoring the Robust Bulbocavernosus Reflex in Cauda Equina Surgeries: Harnessing Machine Learning to Decode the Complexity of Stimulation Parameters
- 3) Nov 2025 Clinical Neurophysiology Congress Brazil Belo Horizonte, Brazil  
Assessing the Role of Intraoperative Neurophysiological Monitoring (IONM) in Preserving Pelvic Floor Integrity During High-Risk Surgeries
- 4) Oct 2025 Conference Podium Presentation (Seoyeon Chung) Seoul, South Korea  
Assessing the Role of Intraoperative Neurophysiological Monitoring (IONM) in Preserving Pelvic Floor Integrity During High-Risk Surgeries
- 5) May 2025 Poster: ASNM Annual Meeting Denver, CO, USA  
Enhancing the Effectiveness of Monitoring the Robust Bulbocavernosus Reflex in Cauda Equina Surgeries: Harnessing Machine Learning to Decode the Complexity of Stimulation Parameters
- 6) May 2025 Poster: ASNM Annual Meeting Denver, CO, USA  
The Impact of Total Intravenous Anesthesia on Intraoperative Neurophysiological Monitoring Stability and Surgical Outcomes in Scoliosis Surgery
- 7) Apr 2025 Somatosensory Evoked Potentials (SEP) ASNM Guidelines Virtual, USA

- 8) May 2024 E-Poster Presentation Washington, DC, USA  
Effect of Dexmedetomidine on Motor Evoked Potentials in the Adult Population:  
Systematic Review and Meta-Analysis.
- 9) May 2024 E-Poster Presentation Washington, DC, USA  
Facial Nerve Monitoring During Parotidectomy. A Case Series
- 10) May 2022 E-Poster Presentation Clearwater Beach, FL, USA  
American Society of Neurophysiological Monitoring (ASNM) Annual Meeting  
"Navigated TMS During Tumor Removal." – Presenter: Misty Huckabey
- 11) Jul 2021 E-Poster Presentation Paris, France  
World Congress on Neurorehabilitation 2021  
"Events and Alerts Identified by IONM in 2,599 Lumbar Surgeries."
- 12) Jun 2021 E-Poster Presentation Virtual, Finland  
American Clinical Neurophysiology Society (ACNS) Annual Meeting  
"Adjuncting Linked Quadri-Polar (LQP) and Preconditioning Stimulation Technique to  
Improve TCE-MEPs During Spinal Tumor Resection. A Case Report"
- 13) Jun 2021 E-Poster Presentation Virtual, Finland  
American Clinical Neurophysiology Society (ACNS) Annual Meeting  
"Optimizing TCeMEP Stimulation For Intraoperative Neurophysiological Monitoring  
(IONM) In Pediatric Patients. A Case Report."
- 14) May 2021 E-Poster Presentation Virtual, USA  
American Society of Neurophysiological Monitoring (ASNM) 30<sup>th</sup> Annual Meeting  
"Events and Alerts Identified by IONM in 2,599 Lumbar Surgeries."
- 15) May 2021 E-Poster Presentation Virtual, USA  
American Society of Neurophysiological Monitoring (ASNM) 30<sup>th</sup> Annual Meeting  
"Motor Evoked Potentials (MEP) Alerts in Extradural Lumbar Surgeries."
- 16) May 2021 E-Poster Presentation Virtual, USA  
American Society of Neurophysiological Monitoring (ASNM) 30<sup>th</sup> Annual Meeting  
"Distal Saphenous Somatosensory Evoked Potentials Loss and Recovery in Open  
Anterior Hip Surgery."
- 17) May 2021 E-Poster Presentation Virtual, USA  
American Society of Neurophysiological Monitoring (ASNM) 30<sup>th</sup> Annual Meeting  
"Pediatric Intraoperative Neuromonitoring: Optimizing Transcranial Electrical Motor  
Evoked Potentials (TCeMEP) stimulation parameters to improve monitoring reliability."
- 18) Feb 2021 E-Poster Presentation Virtual, USA  
American Clinical Neurophysiology Society (ACNS) Annual Meeting  
"Protecting the Visual Pathways During Optic Nerve Surgery Using Intraoperative Visual  
Evoked Potentials (VEP)"
- 19) Feb 2021 E-Poster Presentation Virtual, USA

American Clinical Neurophysiology Society (ACNS) Annual Meeting  
 "Multimodality Intraoperative Neurophysiological Monitoring (IONM) During Shoulder Surgeries

- 20) Feb 2021 E-Poster Presentation Virtual, USA  
 American Clinical Neurophysiology Society (ACNS) Annual Meeting  
 "Intraoperative Triggered Electromyography Recordings from the External Urethral Sphincter Muscles During Spine Surgeries"
- 21) Feb 2021 E-Poster Presentation Virtual, USA  
 American Clinical Neurophysiology Society (ACNS) Annual Meeting  
 "Adjuncting Linked Quadri-Polar (LQP) and Preconditioning Stimulation Technique to Improve TCE-MEPs During Spinal Tumor Resection. A Case Report"
- 22) Feb 2021 E-Poster Presentation Virtual, USA  
 American Clinical Neurophysiology Society (ACNS) Annual Meeting  
 "Optimizing TcMEP Stimulation For Intraoperative Neurophysiological Monitoring (IONM) In Pediatric Patients. A Case Report."
- 23) May 2019 Oral & Poster Presentation, ASNM Annual Meeting Chicago, IL  
 "Triggered Electromyogram Recordings from Urethral Sphincter Muscles"
- 24) Apr 2019 Poster Presentation, Atlantic Health Overlook NeuroConference Summit, NJ  
 "Triggered Electromyogram Recordings from Urethral Sphincter Muscles"
- 25) Apr 2019 Poster Presentation, Atlantic Health Overlook NeuroConference Summit, NJ  
 "Utilizing longer intramuscular needle pair electrodes: What are we really missing in our Intraoperative Muscle Recordings?"
- 26) Aug 2018 Oral & Poster Presentation, ASET Annual Meeting New Orleans, LA, USA  
 American Neurodiagnostic Society  
 "Motor Evoked Potentials (MEP) Recordings from Urethral Sphincter Muscles (USMEP)"
- 27) Aug 2018 Oral & Poster Presentation, ASET Annual Meeting New Orleans, LA, USA  
 American Neurodiagnostic Society  
 "Incidence of IONM Data Changes Due to Positioning in 4577 Surgeries"
- Aug 2018 Oral & Poster Presentation, ASET Annual Meeting New Orleans, LA, USA  
 American Neurodiagnostic Society  
 "IONM During Hip Arthroscopic Repair Surgeries"
- 28) July 2018 Poster Presentation, APPNA 41<sup>st</sup> Annual Meeting Dallas, TX, USA  
 Association of Physicians of Pakistani Descent North America  
 "Language Mapping During Awake Brain Surgeries"
- 29) July 2018 Poster Presentation, APPNA 41<sup>st</sup> Annual Meeting Dallas, TX, USA  
 Association of Physicians of Pakistani Descent North America  
 "Recent Advances in Neuroscience: Surgical Neurophysiology for Improvement in Post-Operative Patients' Outcome"

- 30) Feb 2018 Oral & Poster Presentation, ASNM Annual Meeting Orlando, FL, USA  
American Society of Neurophysiological Monitoring  
“Motor Evoked Potentials (MEP) Recordings from Urethral Electrodes”
- 31) Feb 2018 Oral & Poster Presentation, ASNM Annual Meeting Orlando, FL, USA  
American Society of Neurophysiological Monitoring  
“Incidence of IONM Data Changes Due to Positioning in 4577 Surgeries”
- 32) Feb 2018 Oral & Poster Presentation, ASNM Annual Meeting Orlando, FL, USA  
American Society of Neurophysiological Monitoring  
“IONM During Hip Arthroscopic Repair Surgeries”
- 33) May 2017 Oral & Poster Presentation, ASNM Annual Meeting Cleveland, OH, USA  
American Society of Neurophysiological Monitoring  
“Benefit of Intraoperative Neurophysiological Monitoring (IONM) in a Pediatric Patient With Spinal Dysraphism, Split Cord and Scoliosis”
- 34) Apr 2017 Oral Presentation, Riyadh, KSA  
The Health Profession Conference 2017  
“Benefit of Intraoperative Neurophysiological Monitoring (IONM) in a Pediatric Patient With Spinal Dysraphism, Split Cord and Scoliosis”  
*Presenter: Monerah Annaim (Medical Student)*
- 35) Apr 2017 Oral Presentation, Riyadh, KSA  
SANS 2017 Annual Meeting  
“Benefit of Intraoperative Neurophysiological Monitoring (IONM) in a Pediatric Patient With Spinal Dysraphism, Split Cord and Scoliosis”  
*Presenter: Abdulrahman M. Alrajhi (Medical Student)*
- 36) Sep 2016 Oral Presentation, Riyadh, KSA  
Pediatric Orthopedic Update Conference & Workshop  
King Saud Bin Abdulaziz University for Health Sciences (KSAU-HS)  
“A Vertebral Column Resection (VCR) for Kyphoscoliosis: An Intraoperative Neurophysiological Monitoring (IONM) Alert”  
*Presenter: Monerah Annaim (Medical Student)*
- 37) Aug 2016 Oral Presentation, ASET Annual Meeting Pittsburg, PA, USA  
American Neurodiagnostic Society (ASET)  
“Vertebral Column Resection (VCR) for Kyphoscoliosis in a Patient with Ehlers-Danlos Syndrome (EDS): An Intraoperative Neurophysiological Monitoring (IONM) Alert”
- 38) May 2016 Oral & Poster Presentation, ASNM Annual Meeting Chicago, IL, USA  
American Society of Neurophysiological Monitoring  
“A Vertebral Column Resection (VCR) for Kyphoscoliosis: An Intraoperative Neurophysiological Monitoring (IONM) Alert.”
- 39) Jul 2015 Oral Presentation, ASET Annual Meeting Weston, FL, USA

American Society of Neurophysiological Monitoring  
*“Utilizing longer intramuscular needle pair electrodes: What are we really missing in our Intraoperative Muscle Recordings?”*

- 40) May 2015 Oral & Poster Presentation, ASNM Annual Meeting Chicago, IL, USA  
American Society of Neurophysiological Monitoring  
*“Utilizing longer intramuscular needle pair electrodes: What are we really missing in our Intraoperative Muscle Recordings?”*
- 41) Oct 2014 Oral Presentation, ISIN Annual Meeting Istanbul, Turkey  
International Society of Intraoperative Neurophysiological Monitoring (ISIN)  
*“Continuous Intraoperative Neurophysiological Monitoring (IONM) For Early Detection of Pedicle Screw related Spinal Cord Injury.” Presenter: Dr. Bernie Cohen*
- 42) Aug 2014 Oral Presentation, ASET & SSET Annual Meeting Asheville, NC, USA  
The Neurodiagnostic Society (ASET) & Co-sponsored by the Southern Society of Electroneurodiagnostic Technologists (SSET)  
*“Early Detection of Pedicle Screw Related Spinal Cord Injury by Intraoperative Neurophysiological Monitoring (IONM)”*
- 43) May 2014 Poster Presentation, ASNM Annual Meeting Chicago, IL, USA  
American Society of Neurophysiological Monitoring  
*“Early Detection of Pedicle Screw Related Spinal Cord Injury by Intraoperative Neurophysiological Monitoring (IONM)”*
- 44) May 2014 Poster Presentation, ASNM Annual Meeting Chicago, IL, USA  
American Society of Neurophysiological Monitoring  
*“Intraoperative Neurophysiological Monitoring (IONM) During Sacrectomy Procedures”  
Presenter: Dr. Anila F. Jahangiri (KAIMRC)*
- 45) April 2014 Poster Presentation, NEBEC 2014 Boston, MA, USA  
40<sup>th</sup> Annual Northeast Bioengineering Conference  
*“Anterior-Posterior Resection of Sacral Tumor with Computer Navigation System”  
Presenter: Dr. Anila F. Jahangiri (KAIMRC)*
- 46) Dec 2013 Poster Presentation, 16<sup>th</sup> Resident’s Day: Riyadh, Saudi Arabia  
King Abdulaziz Medical City, King Saud bin Abdulaziz University for Health Sciences,  
National Guard Health Affairs  
*“Localization of Cortical Language Areas by Direct Cortical Motor Stimulation (DECS)  
and Electrocorticography (ECoG)”*
- 47) May 2013 Poster Presentation, 14<sup>th</sup> Research Day: Riyadh, Saudi Arabia  
Department of Medicine, King Abdulaziz Medical City, King Saud bin Abdulaziz  
University for Health Sciences, National Guard Health Affairs  
*“Multimodality Neurophysiological Monitoring in Tibial/Fibular Osteotomies for Preventing  
Peripheral Nerve Injuries.”*
- 48) May 2013 Poster Presentation, 14<sup>th</sup> Research Day: Riyadh, Saudi Arabia  
Department of Medicine, King Abdulaziz Medical City, King Saud bin Abdulaziz  
University for Health Sciences, National Guard Health Affairs

*“Neurophysiologic Monitoring during Spine Surgeries: A Luxury or Necessity?”*

- 49) Dec 2012 Oral Presentation, 15<sup>th</sup> Resident’s Day (1<sup>st</sup> Prize) NGHA, Riyadh, KSA  
King Saud Bin Abdulaziz University for Health Sciences,  
*“Establishing new normal Visual Evoked Potential (VEP) values in young Saudi male population” Presenter: Dr. Ahmed Abulaban*
- 50) Sept 2012 Oral Presentation, SSET Annual Meeting Orlando, FL, USA  
Southern Society of Neurophysiological Monitoring  
*“Preventing lower cranial nerve injuries during fourth ventricle tumor resection by utilizing neurophysiological monitoring.” Co-presenter: Dr. Mazhar Minhas*
- 51) Sep 2012 Oral Presentation, SSET Annual Meeting Orlando, FL, USA  
Southern Society of Neurophysiological Monitoring  
*“Establishing new normal Visual Evoked Potential (VEP) values in young Saudi male population” Co-presenter: Dr. Ahmed Abulaban*
- 52) Sep 2012 Oral Presentation, SSET Annual Meeting Orlando, FL, USA  
Southern Society of Neurophysiological Monitoring  
*“Position related injuries during non-spinal cases: A Sacrectomy case report.”  
Co-presenter: Dr. Muhannud Mjurkesh*
- 53) May 2012 Poster Presentation, 13<sup>th</sup> Research Day: Riyadh, Saudi Arabia  
Department of Medicine, King Abdulaziz Medical City, King Saud bin Abdulaziz  
University for Health Sciences, National Guard Health Affairs  
*“Localization of Central Sulcus by Cortical Sensory Mapping, Direct Cortical Motor  
Stimulation and Electroencephalography”*
- 54) May 2012 Poster Presentation, 13<sup>th</sup> Research Day: Riyadh, Saudi Arabia  
Department of Medicine, King Abdulaziz Medical City, King Saud bin Abdulaziz  
University for Health Sciences, National Guard Health Affairs  
*“Protecting the Visual Pathways during Optic Nerve Surgery Using Neurophysiological  
Monitoring”*
- 55) May 2012 Oral Presentation, Saudi Physical Therapy Conference Riyadh, Saudi Arabia  
King Abdulaziz Medical City, King Saud bin Abdulaziz University for Health Sciences,  
National Guard Health Affairs  
*“Multimodality Neurophysiological Monitoring in Tibial/Fibular Osteotomies for Preventing  
Peripheral Nerve Injuries.”*
- 56) May 2012 Oral Presentation, ASNM Annual Meeting Salt Lake City, UT, USA  
American Society of Neurophysiological Monitoring  
*“Preventing lower cranial nerve injuries during the fourth ventricle tumor resection by  
utilizing neurophysiological monitoring.”*
- 57) Apr 2012 Oral Presentation, 6<sup>th</sup> SANS Annual Meeting: Alkhobar, Saudi Arabia  
Horizons of Neurosurgery V  
Saudi Association of Neurological Surgeons  
*“Protecting the Spinal Cord Sensory and Motor Functions during Cordotomy Procedures”*

- 58) Apr 2012 Poster Presentation, 6<sup>th</sup> SANS Annual Meeting: Alkhobar, Saudi Arabia  
Horizons of Neurosurgery V: Saudi Association of Neurological Surgeons  
*"Localization of Central Sulcus by Cortical Sensory Mapping, Direct Cortical Motor Stimulation and Electrographic"*
- 59) Apr 2012 Poster Presentation, 6<sup>th</sup> SANS Annual Meeting: Alkhobar, Saudi Arabia  
Horizons of Neurosurgery V: Saudi Association of Neurological Surgeons  
*"Preventing the Visual Pathways during Optic Nerve Surgery Using Neurophysiological Monitoring"*
- 60) Aug 2011 Podium Presentation, ASET 2011 Annual Conference Atlanta, GA, USA  
The Neurodiagnostic Society (ASET) & Co-sponsored by the Southern Society of  
Electroneurodiagnostic Technologists (SSET)  
*"Localization of the Primary Motor Cortex by using a Tangential-Radial Cortical SSEP Model, DECS, and Electrographic"*
- 61) Aug 2011 Poster Presentation, ASET 2011 Annual Conference Atlanta, GA, USA  
The Neurodiagnostic Society (ASET) & Co-sponsored by the Southern Society of  
Electroneurodiagnostic Technologists (SSET)  
*"Protecting the Spinal Cord Sensory and Motor Functions during Cordotomy Procedures"*
- 62) May 2011 ASNM 22<sup>nd</sup> Annual Meeting Orlando, FL, USA  
American Society of Neurophysiological Monitoring (ASNM)  
*"Neuromonitoring in Underdeveloped Countries"*
- 63) May 2011 ASNM 22<sup>nd</sup> Annual Meeting Orlando, FL, USA  
American Society of Neurophysiological Monitoring (ASNM)  
*"Limiting the current density during Localization of the Primary Motor Cortex by using a Tangential-Radial Cortical SSEP Model, DECS and Electrographic."*
- 64) May 2011 ASNM 22<sup>nd</sup> Annual Meeting Orlando, FL, USA  
American Society of Neurophysiological Monitoring (ASNM)  
*"Protecting the Spinal Cord Sensory and Motor functions during Cordotomy Procedures."*
- 65) May 2011 ASNM 22<sup>nd</sup> Annual Meeting Orlando, FL, USA  
American Society of Neurophysiological Monitoring (ASNM)  
*"Intraoperative Neuromonitoring: Lessons learned from 32 case events in 2095 spine cases."*
- 66) April 2011 Poster Presentation: 10th Annual Resident Research Day Charlottesville, VA, USA  
Department of Surgery, University of Virginia Health System  
*"Localization of the Primary Motor Cortex by Using a Tangential-Radial Cortical SSEP Model, DECS and Electrographic"*
- 67) April 2011 Poster Presentation: 10th Annual Resident Research Day Charlottesville, VA, USA  
Department of Surgery, University of Virginia Health System  
*"Preventing possible position-related brachial plexus injury with intraoperative Somatosensory Evoked Potentials (SSEP) and Transcranial electrical Motor Evoked Potentials (TCeMEP Monitoring)"*

- 68) Oct 2010 Congress of Neurological Surgeons (CNS) San Francisco, CA, USA  
 Poster Presentation: Presenter: Jonathan H. Sherman, MD  
*"Limiting the current density during Localization of the Primary Motor Cortex by using a Tangential-Radial Cortical SSEP Model, DECS, and Electrocorticography."*
- 69) Sept 2010 EuroSpine 2010 Annual Meeting Vienna, Austria  
 Paper Presentation: Dr. Vincent Arlet  
*"Intraoperative Neuromonitoring: Lessons learned from 32 case events in 2095 spine cases"*
- 70) Aug 2010 Poster Presentation, 51<sup>st</sup> Anniversary Annual Conference Louisville, KY, USA  
 American Society of Electroneurodiagnostic Technologists (ASET)  
*"Protecting the Sensory and Motor Spinal Pathways during the Embolization of Spinal AVM in INR Suite"*
- 71) Aug 2010 Poster Presentation, 51<sup>st</sup> Anniversary Annual Conference Louisville, KY, USA  
 American Society of Electroneurodiagnostic Technologists (ASET)  
*"Protecting the Genitofemoral Nerve during Direct Lateral Interbody Fusion (DLIF/XLIF) Procedures"*
- 72) April 2010 ASNM Annual Meeting: Research Paper Nashville, TN, USA  
 American Society of Neurophysiological Monitoring (ASNM)  
*"Protecting the Genitofemoral Nerve during Direct Lateral Interbody Fusion (DLIF/XLIF) Procedures"*
- 73) April 2010 AO Spine North America Banff Springs, Alberta, Canada  
 8<sup>th</sup> Annual AO Spine North America Fellows Forum  
 Paper Presentation: Presenter: Mathew Eager, MD  
*"Intraoperative Neuromonitoring: Lessons learned from 32 case events in 2095 spine cases"*
- 74) April 2010 AO Spine North America Banff Springs, Alberta, Canada  
 8<sup>th</sup> Annual AO Spine North America Fellows Forum  
 Poster Presentations: Presenter: Mathew Eager, MD  
*"Intraoperative neuromonitoring: Lessons learned from 32 case events in 2095 spine cases"*
- 75) Aug 2009 Poster Presentation, 50<sup>th</sup> Anniversary Annual Conference Phoenix, AZ, USA  
 American Society of Electroneurodiagnostic Technologists (ASET)  
*"Use of Intraoperative Neurophysiological Monitoring during Selective Dorsal Root Rhizotomies for treatment of Spasticity in a patient with Cerebral Palsy."*
- 76) Aug 2009 Poster Presentation, 50<sup>th</sup> Anniversary Annual Conference Phoenix, AZ, USA  
 American Society of Electroneurodiagnostic Technologists (ASET)  
*"Predicting surgical outcome by Somatosensory Evoked Potentials and Trans-Cranial Electric Motor Evoked Potentials in a Cervical-Medullary Junction Hemangioblastoma."*
- 77) Nov 2008 Platform Presentation, 2<sup>nd</sup> National Neurology Day Islamabad, Pakistan  
 SHIFA International Hospital & School of Medicine, (1<sup>st</sup> prize)  
*"Intra Operative Neurophysiological Monitoring: Luxury or Necessity?"*

- 78) May 2008 ASNM 19<sup>th</sup> Annual Meeting: Research Paper Chicago, IL, USA  
 American Society of Neurophysiological Monitoring (ASNM)  
*"Multimodality Neurophysiological Monitoring in Tibial/Fibular Osteotomies for Preventing Peripheral Nerve Injuries."*
- 79) May 2007 ASNM 18<sup>th</sup> Annual Meeting Chicago, IL, USA  
 American Society of Neurophysiological Monitoring  
 Moderator Scientific Session
- 80) May 2006 ASNM 17<sup>th</sup> Annual Meeting: Research Paper Seattle, WA, USA  
 American Society of Neurophysiological Monitoring  
*"Use of Intraoperative Monitoring during Selective Dorsal Root Rhizotomies for Treatment of Severe Thoracic Pain (Post-Herpetic Neuralgia)"*
- 81) May 2005 16<sup>th</sup> Annual Meeting: Research Paper Philadelphia, PA, USA  
 American Society of Neurophysiological Monitoring  
*"Tangential-Radial Cortical SSEP Model, DECS and ECoG Localization in Posterior Fossa Frontal Metastatic Adenocarcinoma"*
- 82) Feb 1992 XI International Biennial Pediatric Conference Karachi, Pakistan  
 Pakistan Paediatric Association  
*"Prevalence of Upper Respiratory Tract Infections in children under five years of age in rural areas of Peshawar, Pakistan."*

**Conference Participation (Continuing Medical Education):**

- |      |     |  |                        |
|------|-----|--|------------------------|
| 2025 | Feb | ASNM Winter Townhall Meeting                                   | Virtual, USA           |
|      | Apr | ASNM SEP Webinar   | Virtual, USA           |
|      | May | ASNM Annual Meeting  | Washington DC, USA     |
|      | Jun | California Neurodiagnostic Society (CNS) Annual Meeting        | Virtual, CA, USA       |
|      | Sep | Ohio Neurodiagnostic Society                                   | Virtual, OH, USA       |
|      | Sep | ASNM Fall Symposium  | Virtual, USA           |
|      | Oct | World Congress of Neurology (WFN)                              | Seoul, South Korea     |
|      | Oct | SSET Annual Meeting  | Myrtle Beach, SC, USA  |
|      | Nov | SIONCON  | Bengaluru, India       |
|      | Nov | Brazilian Society of Clinical Neurophysiology – SBNC           | Belo Horizonte, Brazil |
| 2024 | Feb | ASNM Winter Townhall Meeting                                   | Virtual, USA           |
|      | May | ARKANA – Brain Mapping   | Virtual, Germany       |
|      | May | ASNM Annual Meeting  | Washington, DC, USA    |
|      | Jun | California Neurodiagnostic Society (CNS) Annual Meeting        | Virtual, CA, USA       |
|      | Sep | ASNM Fall Symposium  | Virtual, USA           |
|      | Oct | SSET Annual Meeting  | Nashville, TN, USA     |
|      | Oct | Annual CNSSA Congress South Africa                             | Durban, South Africa   |
|      | Nov | Ohio Neurodiagnostic Society                                   | Cincinnati, OH, USA    |
|      | Nov | IONM Workshop (Neurophysiology Ltd, UK/Global Innervation USA) | London, UK             |
|      | Dec | Saudi Spine Society Annual Meeting                             | Riyadh, KSA            |

2023	May	ASNM Annual Meeting	Dallas, TX, USA
	Jun	California Neurodiagnostic Society (CNS) Annual Meeting	Virtual, CA, USA
	Oct	SSET Annual Meeting	San Antonio, TX, USA
	Oct	Arkana Education Course – Cincinnati Children’s Hospital	Cincinnati, OH, USA
	Nov	Saudi Spine Society Annual Meeting	Jeddah, KSA
	Nov	Basic Medical Science International Meeting	Peshawar, Pakistan
	Dec	NGHA Annual Spine Meeting	Jeddah, KSA
2022	Feb	ASNM Winter Townhall Meeting	Virtual, USA
	May	ASNM Annual Meeting	Clearwater Beach, FL, USA
	Sep	ASNM Fall Symposium	Virtual, USA
	Dec	Saudi Spine Society Annual Meeting	Jeddah, KSA
2021	Sep	ASNM Fall Symposium	Virtual, USA
	Aug	ASET Annual Meeting	Online, USA
	Jul	World Congress on Neurorehabilitation	Virtual, Paris, France
	May	ASNM 30 <sup>th</sup> Annual Virtual Meeting	Virtual, USA
	Mar	SANS- Brain IONM Workshop	Virtual, KSA
	Feb	ASNM Winter Virtual Symposium	Virtual, USA
	Feb	American Clinical Neurophysiology Society (ACNS) Annual Meeting	Virtual, USA
	Jan	Axis Neuromonitoring Annual Winter Workshop & Symposium	Virtual, TX, USA
2020	Dec	Comprehensive EEG Course	Virtual, Riyadh, KSA
	Nov	SSET Annual Meeting	Online, USA
	Nov	IONM Workshop, Saudi Spine Society 4 <sup>th</sup> Annual Meeting	Virtual, Riyadh, KSA
	Sep	ASNM Fall Symposium	Online, USA
	Aug	ASET Annual Meeting	Online, USA
	May	ASNM MEP Townhall Meeting	Online, USA
	May	Biostatistics Research Training Course, KFSH Dammam, KSA	Online, USA
	Apr	California Neurodiagnostic Society Annual Meeting	Online, USA
	Feb	ASNM Winter Virtual Symposium	Chicago, IL, USA
	Jan	Axis Neuromonitoring Annual Winter Seminar & Workshops	Dallas, TX, USA
2019	Jan	Axis Neuromonitoring Annual Winter Seminar & Workshops	Dallas, TX, USA
	Feb	ASNM Winter Symposium	Westlake Village, CA, USA
	Apr	Atlantic Health Overlook NeurocConference	Summit, NJ, USA
	May	ASNM Annual Meeting	Chicago, IL, USA
	Aug	ASET Annual Meeting	Kansas City, MO, USA
	Sep	ASNM Fall Symposium	Boston, MA, USA
	Oct	TSNT Texas Neurodiagnostic Society Annual Meeting	San Antonio, TX, USA
2018	Nov	Saudi Spine Society 2 <sup>nd</sup> Annual Meeting	Jeddah, KSA
	Nov	SSET/TSNT Annual meeting	Dallas, TX, USA
	Sep	ASNM Fall Symposium	Nashville, TN, USA
	Aug	ASET 2018 Aural Meeting	New Orleans, LA, USA
	Jul	APPNA 41 <sup>st</sup> Annual Meeting	Dallas, TX, USA
	Apr	AANS 2 <sup>nd</sup> International Brain Mapping Course	New Orleans, LA, USA
	Feb	Annual Meeting of ASNM	Orlando, FL, USA
2017	Dec	Saudi Spine Society: Pre-Conference IONM Workshop	Riyadh, KSA

	Sep	Saudi Spine Society 1 <sup>st</sup> Annual Meeting	Riyadh, KSA
	May	ASNM Fall Symposium	Baltimore, MD, USA
	May	Annual Meeting of ASNM - 40 <sup>th</sup> Anniversary	Cleveland, OH, USA
	Mar	SANS Spine IONM Workshop	Riyadh, KSA
	Mar	Saudi Association of Neurological Surgery (SANS)	
2016	Sep	Pediatric Orthopedic Update Conference & Workshop	Riyadh, KSA
	Sep	ASNM Fall Symposium	Boston, MA, USA
	Aug	ASET Annual Meeting	Pittsburgh, PA, USA
	May	27 <sup>th</sup> Annual Meeting of ASNM	Chicago, IL, USA
	Mar	POA Spine Forum: Second International IONM Workshop	Rawalpindi, Pakistan
	Feb-Mar	Saudi Association of Neurological Surgery (SANS)	Riyadh, KSA
2015	Nov	9 <sup>th</sup> APCSS and 1 <sup>st</sup> ASA Conjoint Meeting	Dubai, UAE
	Nov	<i>Asia Pacific Cervical Spine Society (APCSS) &amp; 1<sup>st</sup> Arab Spine Academy (ASA) Meeting</i>	
	Oct	SSET Annual Meeting: Co-Sp by Texas Neurodiag Society	Dallas, TX, USA
	Jul-Aug	ASET Annual meeting	Weston, FL, USA
	May	Department of Medicine: 16 <sup>th</sup> Research Day	Riyadh, KSA
	May	Inomed IONM User Meeting	Emmendingen, Germany
	May	26 <sup>th</sup> Annual Meeting of ASNM	Chicago, IL, USA
	Mar	POA Spine Forum: First International IONM Workshop	Rawalpindi, Pakistan
	Mar	Saudi Association of Neurological Surgery (SANS)	Dammam, KSA
2014	Dec	Spine Update 2014	Riyadh, KSA
	Nov	SES-SFN Annual Meeting	Riyadh, KSA
	Oct	Inomed Scientific Workshop	Istanbul, Turkey
	Aug	ASET & SSET Joint 2014 Annual meeting	Asheville, NC, USA
	May	25 <sup>th</sup> Annual Meeting of ASNM	Chicago, IL, USA
	April	NEBEC: 40TH Annual Northeast Bioengineering Conference	Boston, MA, USA
2013	Dec	16 <sup>th</sup> Resident's Day	Riyadh, KSA
	Dec	King Saud Bin Abdulaziz University for Health Sciences	
	Nov	21 <sup>st</sup> Saudi Neurology Society Annual Meeting: IONM Workshop	Riyadh, KSA
	May	Department of Medicine: 14 <sup>th</sup> Research Day	Riyadh, KSA
	May	24 <sup>th</sup> Annual Meeting of ASNM	Boston, MA,
	USA		
	Mar	2 <sup>nd</sup> Saudi International Conference on IONM	Riyadh, KSA
	Mar	Tufts School of Medicine & King Fahad Medical City,	
2012	Dec	15 <sup>th</sup> Resident's Day	NGHA, Riyadh, KSA
	Dec	King Saud Bin Abdulaziz University for Health Sciences	
	Sep	SSET, 52 <sup>nd</sup> Annual meeting	Orlando, FL, USA
	Sep	1 <sup>st</sup> International Symposium On Intraoperative Imaging & Image-guided Neurosurgery	Riyadh, KSA
	May	Department of Medicine: 13th Research Day	Riyadh, KSA
	May	Saudi Physical Therapy Conference	Riyadh, KSA
	May	Annual meeting of ASNM	Salt Lake City, UT, USA
	Apr	Saudi Association of Neurological Surgery (SANS) 6 <sup>th</sup> Annual	Alkhobar, KSA

2011	Aug	ASET /SSET 2011 Annual meeting	Atlanta, GA, USA
	May	22 <sup>nd</sup> Annual meeting of ASNМ	Orlando, FL, USA
	April	10 <sup>th</sup> Annual Resident Research Day Dept. of Surgery, University of Virginia Health System	Charlottesville, VA, USA
2010	Oct	50 <sup>th</sup> Annual meeting of SSET	Myrtle Beach, SC, USA
	Aug	51 <sup>st</sup> Annual meeting of ASET	Louisville, KY, USA
	May	21 <sup>st</sup> Annual meeting of ASNМ	Nashville, TN, USA
2009	Aug	50 <sup>th</sup> Annual meeting of ASET	Phoenix, AZ, USA
	May	20 <sup>th</sup> Annual meeting of ASNМ	Vancouver, Canada
2008	Oct	48 <sup>th</sup> Annual meeting of SSET	Raleigh, NC, USA
	May	19 <sup>th</sup> Annual meeting of ASNМ	Chicago, IL, USA
2007	May	18 <sup>th</sup> Annual meeting of ASNМ	Chicago, IL, USA
2006	July	APPNA 29 <sup>th</sup> Annual Summer Meeting	Chicago, IL, USA
	May	17 <sup>th</sup> Annual meeting of ASNМ	Seattle, WA, USA
2005	Oct	Annual Meeting: Society of Neurosciences (Hiring)	Washington, DC, USA
	Aug	Neural Interfaces Workshop – National Institute of Neurological Disorders & Stroke (NINDS)	Bethesda, MD, USA
	May	16 <sup>th</sup> Annual meeting of ASNМ	Philadelphia, PA, USA
2004	Dec	APPNA Winter Meeting	Khyber Medical College, Peshawar, Pakistan
	Nov	Neural Interfaces Workshop – National Institute of Neurological Disorders & Stroke (NINDS)	Bethesda, MD, USA
	July	1 <sup>st</sup> Advance IONM Meeting of California	Sacramento, CA, USA
	May	15 <sup>th</sup> Annual Meeting of ASNМ	San Antonio, TX, USA
2003	May	14 <sup>th</sup> Annual Meeting of ASNМ	Las Vegas, NV, USA
2002	Nov	3 <sup>rd</sup> International Symposium on Intraoperative Neurophysiologic Monitoring in Neurosurgery	New York, NY, USA
	May	13 <sup>h</sup> Annual Meeting of ASNМ	Orlando, FL, USA
2000	May	Intraoperative Monitoring Seminar, University of Michigan,	Ann Arbor, MI, USA
1997	Jul	Annual Meeting of the IEEE-EMBS	Chicago, IL, USA
1996	Jul	Annual Meeting of the Society of Neurosciences	Washington, DC, USA
1992	Feb	XI International Biannual Pediatric Conference	Karachi, Pakistan

**Conference Moderator Scientific Sessions:**

Nov 2024	Saudi Spine Society: Pre-Conference IONM Workshop	Riyadh, KSA
Nov 2023	Saudi Spine Society: Pre-Conference IONM Workshop	Jeddah, KSA
Nov 2022	Saudi Spine Society: Pre-Conference IONM Workshop	Riyadh, KSA
May 2023	ASNM Annual Meeting	Dallas, TX, USA
Dec 2022	Saudi Spine Society: Pre-Conference IONM Workshop	Jeddah, KSA
May 2022	ASNM Annual Meeting	Clearwater Beach, FL, USA
Feb 2022	ASNM Winter Townhall Meeting - Panelist	Virtual, USA
Jun 2021	ASNM 30 <sup>th</sup> Annual Virtual Meeting	Virtual, USA
Jan 2020	Axis Neuromonitoring Annual Winter Seminar & Workshops	Richardson, TX, USA
Sep 2019	ASNM Fall Symposium	Boston, MA, USA
Jan 2019	Axis Neuromonitoring Annual Winter Seminar & Workshops	Richardson, TX, USA
Nov 2018	Saudi Spine Society: Pre-Conference IONM Workshop	Jeddah, KSA
Feb 2018	2018 Annual Meeting of ASNM	Orlando, FL, USA
Dec 2017	Saudi Spine Society: Pre-Conference IONM Workshop	Riyadh, KSA
Mar 2017	SANS Spine IONM Workshop Saudi Association of Neurological Surgery (SANS)	Riyadh, KSA
May 2016	27 <sup>th</sup> Annual Meeting of ASNM	Chicago, IL, USA
Mar 2016	POA Spine Forum: Second International IONM Workshop Hands-on IONM Workshop for Spine Surgeons	<i>Rawalpindi, Pakistan</i>
Feb-Mar 2016	Saudi Association of Neurological Surgery (SANS) 2016	Riyadh, KSA
Nov 2015	9 <sup>th</sup> APCSS and 1 <sup>st</sup> ASA Conjoint Meeting <i>Asia Pacific Cervical Spine Society (APCSS) &amp; 1<sup>st</sup> Arab Spine Academy (ASA) Meeting</i>	Dubai, UAE
Oct 2015	2015 SSET & TNS Joint Annual Meeting Southern Society of Neurophysiological Monitoring (SSET) & Texas Neurodiag Society	Dallas, TX, USA
May 2015	Department of Medicine: 16 <sup>th</sup> Research Day	Riyadh, KSA
Mar 2015	POA Spine Forum: First International IONM Workshop Basic Intraoperative Neurophysiological Monitoring (IONM) for Spine Surgeons	<i>Rawalpindi, Pakistan</i>
Mar 2015	SANS: Saudi Association of Neurological Surgeons	Riyadh, KSA

*Intraoperative Neurophysiological Monitoring Workshop*

Dec 2014	Spine Update 2014 <i>Intraoperative Neurophysiological Monitoring Workshop</i>	Riyadh, KSA
May 2013	24 <sup>th</sup> Annual Meeting of ASNM	Boston, MA, USA
Mar 2013	2 <sup>nd</sup> Saudi International Conference on Intra Operative Neurophysiology Tufts School of Medicine & King Fahad Medical City,	Riyadh, KSA
Sept 2012	SSET, 52 <sup>nd</sup> Annual Meeting	Orlando, FL, USA
May 2007	18 <sup>th</sup> Annual meeting of ASNM	Chicago, IL, USA

**MODALITIES (EXPERTISE):**

---

- SSEP (Somatosensory Evoked Potentials)
- EMG (spontaneous and triggered)
- TCeMEP (Transcranial Motor Evoked Potentials)
- D-waves (Epidural responses)
- BAER (Brainstem Auditory Evoked Potentials)
- Cranial Nerves (CN II-XII)
- TCD ( Transcranial Doppler)
- ECoG (Electro Cochleograms)
- ANAP (Auditory Nerve Action Potentials)
- CNAP (Compound Nerve Action Potentials)
- EEG (Electroencephalogram)
- TSEP (Trigeminal SEP)
- PSEP (Pudendal SEP)
- Direct Spinal Cord Mapping
- Cortical SSEP Mapping
- DECS (Direct Electrical Cortical Stimulation – Bipolar/Monopolar, Short Frequency/Fast Frequency)
- Subcortical Mapping (Bipolar/Monopolar, Short Frequency/Fast Frequency)
- ECoG (Electro Corticography)
- Laryngeal Nerve Monitoring (RLN, SLN)
- VEP (Visual Evoked Potentials)
- EOG (Electro Oculography)
- ERG (Electro Retinography)
- Peripheral Compound Nerve Action Potentials (CNAP)
- Brainstem nuclei mapping
- Pudendal Nerve Monitoring
- Bulbocavernosus Reflex (BCR)
- H-Reflex

## IONM Platforms

---

- Cascade Surgical Studio
- Cadwell PRO / Cadwell Elite / Cadwell Cascade / IOMAX
- Inomed ISIS
- Inomed C2
- Medtronic NIM, NIM-Eclipse /E4
- Axon XP / Axon Epoch 2000
- Xltek Protektor / Xltek EP-16
- Nihon Coden
- Nicolet Viking
- Viasys Endeavor
- Leadpoint
- Bravo
- Spencer PMD 100/150
- Cadwell Quantum 84

## AWARDS:

---

Jun 2025	Neuroscience Teaching Award School of Behavioral & Brain Sciences The University of Texas at Dallas	Dallas, Texas, USA
May 2025	Founders Award American Society of Neurophysiological Monitoring (ASNM)	Denver, CO, USA
Jan 2023	International Speaker, Live Neuromonitoring Workshop in Spine Surgery Department of Spine Surgery, Hayatabad Medical Complex	Peshawar, Pakistan
Jan 2023	International Speaker, Neuromonitoring in Spine Surgery Department of Spine Surgery, Khyber Teaching Hospital	Peshawar, Pakistan
May 2021	The Outstanding Publication in a Peer-Reviewed Journal Award American Society of Neurophysiological Monitoring (ASNM)	Virtual, ASNM, USA
Sep 2020	The Outstanding Committee Member Award American Society of Neurophysiological Monitoring (ASNM)	Virtual, ASNM, USA
Nov 2020	Course Director / Saudi Spine Society 4 <sup>th</sup> Annual Meeting Pre-Conference IONM Workshop	Virtual, Riyadh, KSA
Aug 2019	FASET Fellowship, ASET- <i>American Neurodiagnostic Society</i>	ASET, Kansas City, MO, USA

Nov 2018	Nominated & Elected as President Elect American Society of Neurophysiological Monitoring (ASNM)	ASNM, Chicago, IL, USA
Nov 2018	Course Director / Saudi Spine Society 2 <sup>nd</sup> Annual Meeting Pre-Conference IONM Workshop	Jeddah, KSA
Jul 2018	Excellence in Education Award APPNA MERIT	Dallas, TX, USA
Feb 2018	Nominated for President Elect American Society of Neurophysiological Monitoring (ASNM)	ASNM, Orlando, FL, USA
Feb 2018	2 <sup>nd</sup> Place Scientific Achievement Award in Orlando, FL, USA Lead Author - Research Poster, ASNM Annual Meeting <i>"Motor Evoked Potentials (MEP) Recordings from Urethral Electrodes"</i>	
Dec 2017	Course Director / Saudi Spine Society 1 <sup>st</sup> Annual Meeting Pre-Conference IONM Workshop	Riyadh, KSA
Apr 2017	<u>3<sup>rd</sup> Prize</u> Oral Presentation, the Health Profession Conference 2017 <i>"Benefit of Intraoperative Neurophysiological Monitoring (IONM) in a Pediatric Patient With Spinal Dismorphism, Split Cord and Scoliosis"</i> <i>Presenter: Monerah Annaim (Medical Student)</i>	Riyadh, KSA
May 2016	Founding Member, Research Committee Saudi Spine Society (SSS)	Riyadh, KSA
Mar 2016	PPQP Invited by the Government of Pakistan to introduce Intra Operative Neurophysiological Monitoring (IONM) in various cities in Pakistan. <b>Invited Under:</b> Presidents Programme for the Care Of Highly Qualified Overseas Pakistanis (PPQP), Ministry of Federal Education and Professional Training, Islamabad, Pakistan.	Islamabad, Pakistan
Mar 2016	Chairman (Shield of Honor) Second, International Hands-on IONM Workshop for Spine Surgeons	Rawalpindi, Pakistan
Feb-Mar 2016	IONM Course Director / SANS 10 <sup>th</sup> Annual Meeting Pre-Conference IONM Workshop	Riyadh, KSA
Nov 2015	Elected, Board Member-at-Large (Term 2016-20) American Society of Neurophysiological Monitoring	ASNM, Chicago, IL, USA
Oct 2015	IONM Co-Course Director, SSET-TxSET Joint Annual Meeting Southern Society of Electroneurodiagnostic Technologists (SSET)	Dallas, TX, USA
May 2015	Scientific Achievement Award Lead Author - Research Poster, ASNM Annual Meeting <i>"Utilizing Longer Intramuscular Needle Pair Electrodes: What are we really missing?"</i>	Chicago, IL, USA

Mar 2015	IONM Co-Course Director (Shield of Honor) First, International IONM Workshop for Spine Surgeons	Rawalpindi, Pakistan
Mar 2015	IONM Course Director / SANS 9 <sup>th</sup> Annual Meeting Pre-Conference IONM Workshop – Horizons of Neurosurgery VII	Dammam, KSA
Dec 2014	IONM Course Director Pre-Conference IONM Workshop – Spine Update 2014 Annual Meeting	Riyadh, KSA
May 2014	Member, Education Committee American Society of Neurophysiological Monitoring	ASNM, Chicago, IL, USA
May 2014	Member, Guidelines & Standard of Care Committee American Society of Neurophysiological Monitoring	ASNM, Chicago, IL, USA
May 2014	Member, Research Committee American Society of Neurophysiological Monitoring	ASNM, Chicago, IL, USA
2013-19	Chair, Membership Committee American Society of Neurophysiological Monitoring	ASNM, Chicago, IL, USA
Sep 2013	Member Board of Trustees (2013-15), Southern Society of Electroneurodiagnostic Technologists (SSET)	SSET, USA
Sep 2013	IONM Course Director / Organizer, 53 <sup>rd</sup> Annual Meeting Southern Society of Electroneurodiagnostic Technologists (SSET)	Savannah, GA USA
Aug 2013	Chair, Website Committee Southern Society of Electroneurodiagnostic Technologists (SSET)	SSET, USA
May 2013	FASNMM Fellowship, American Society of Neurophysiological Monitoring	ASNM, Chicago, IL, USA
Dec 2012	<u>First Prize:</u> Oral Presentation, 15 <sup>th</sup> Annual Resident's Day King Saud Bin Abdulaziz University for Health Sciences, <i>"Establishment of Normal Visual Evoked Potentials (VEP) Values in Adult Saudi Males"</i>	NGHA, Riyadh, KSA
Sep 2012	IONM Course Director, 52 <sup>nd</sup> Annual Meeting Southern Society of Electroneurodiagnostic Technologists (SSET)	Orlando, FL USA
Jan 12-14	Member, Membership Committee	ASNM, Chicago, IL, USA
Aug 2011	Member Board of Trustees (2011-13), Southern Society of Electroneurodiagnostic Technologists (SSET)	SSET, USA
Jan 11-14	Member,	ASNM, Chicago, IL, USA

## Applied Philanthropic Committee

Nov 2008	<u>First Prize:</u> Platform Presentation, 2 <sup>nd</sup> National Neurology Day SHIFA International Hospital & School of Medicine, <i>"Intra Operative Neurophysiological Monitoring: Luxury or Necessity?"</i>	Islamabad, Pakistan
Jun -July 2008	Invited by the Government of Pakistan to introduce the field of Intra Operative Neurophysiological Monitoring (IONM) in various cities in Pakistan. <b><u>Under the program: National Talent Pool "<i>Visits of Expatriate Pakistani Consultants for Short Duration Assignments in Pakistan (VEPCON)</i>"</u></b>	Islamabad, Pakistan
Sep 2003	Achievement Award of Excellence Sentient Medical Systems	Cockeysville, MD, USA
Sep 1990	Chief Organizer, Gold Medal By Governor of NWFP: Fund Raising drive for "Peshawar Mental Health Association."	Peshawar, Pakistan
April 1988	Volunteer of the year Award By Chief Minister of NWFP Fatimid Foundation: Hemophilia / Thalassemia Blood Services.	Peshawar, Pakistan

## **JOURNAL REVIEWER:**

---

2023-	Editor-in-Chief Journal of Neurophysiological Monitoring (JNPM)	USA
2021-	Associate Editor, The Neurodiagnostic Journal (Official Journal of ASET – Neurodiagnostic Society)	USA
2015-21	Assistant Editor, The Neurodiagnostic Journal (Official Journal of ASET – Neurodiagnostic Society)	USA
2020-	Reviewer, Clinical Neurophysiology Practice	USA
2020-	Reviewer, Journal of Clinical Monitoring & Computing	USA
2016-	Reviewer, Journal of Clinical Neuroscience (JOCN)	USA
2015-	Reviewer, The Neurodiagnostic Journal (Official Journal of ASET – Neurodiagnostic Society)	USA

2013-	Reviewer, Journal of Clinical Neurophysiology (JCN)	USA
2012-	Reviewer, European Spine Journal (ESJ)	ESJ, Switzerland
2011-13	Editor, Newsletter Committee, the Monitor, Official Newsletter of American Society of Neurophysiological Monitoring	ASNM, Chicago, IL, USA
2011- USA	Reviewer,  AJET (American Journal of Electroneurodiagnostic Technology)	AJET Journal, ASET, Missouri,
1989-1990	Editor, Medical Section CENNA, Literary Society Magazine Khyber Medical College, University of Peshawar	Peshawar, Pakistan

## **GRADUATE RESEARCH PROJECTS:**

2021-22	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Sensory Mapping of the Brain: Median nerve vs Tibial Nerve	Richardson, TX, USA
2021-22	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Motor Mapping of the Brain: Taniguchi vs Penfield Technique	Richardson, TX, USA
2021-22	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Electroencephalogram (EEG) vs Electrocorticography (ECoG)	Richardson, TX, USA
2020-21	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Pedicle Screw Stimulation During Thoracic Surgeries	Richardson, TX, USA
2020-21	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Neuromonitoring with Urethral Bladder Electrode	Richardson, TX, USA
2020-21	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Neuromonitoring for Carotid Surgeries	Richardson, TX, USA

2020-21	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Neuromonitoring for Thyroid Surgeries	Richardson, TX, USA
2020-21	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Mapping of the Spinal Cord	Richardson, TX, USA
2020-21	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Electromyogram (EMG) Mapping of the Spinal Cord	Richardson, TX, USA
2020-21	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Motor Mapping of the Spinal Cord	Richardson, TX, USA
2020-21	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Sensory Mapping of the Spinal Cord	Richardson, TX, USA
2019-20	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, IONM for Lumbar Spine Surgeries	Richardson, TX, USA
2019-20	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, IONM for Cerebellopontine Angle Surgeries	Richardson, TX, USA
2019-20	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, IONM for Cerebral Palsy Patients	Richardson, TX, USA
2019-20	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, IONM for Shoulder Surgeries	Richardson, TX, USA
2019-20	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Localization of the Cortical Language Areas: A Technical Report	Richardson, TX, USA
2019-20	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Localization of the Somatosensory Cortex: A Technical Report	Richardson, TX, USA
2019-20	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas, Localization of the Motor Cortex: A Technical Report	Richardson, TX, USA
2019-20	<i>School of Behavioral and Brain Sciences,</i> The University of Texas at Dallas,	Richardson, TX, USA

Intraoperative Triggered Electromyography Recordings from the External Urethral Sphincter Muscles

2018-19	<i>School of Behavioral and Brain Sciences, The University of Texas at Dallas, Utilizing Longer Intramuscular Needle Pair Electrodes</i>	Richardson, TX, USA
2018-19	<i>School of Behavioral and Brain Sciences, The University of Texas at Dallas, Intraoperative Visual Evoked Potentials (VEP) Monitoring</i>	Richardson, TX, USA
2018-19	<i>School of Behavioral and Brain Sciences, The University of Texas at Dallas, Motor Evoked Potential Recordings from the Urethral Sphincter Muscles (USMEPs)</i>	Richardson, TX, USA
2018-19	<i>School of Behavioral and Brain Sciences, The University of Texas at Dallas, Incidence of Position-Related IONM Changes</i>	Richardson, TX, USA
1995-98	<i>Morphometric Imaging Lab Generation of an average 3D skull image template using UNIX based C programming from CT scans to help in reconstructive plastic surgery of patients and forensic identification of skulls</i>	CWRU, Cleveland, OH, USA
1989-92	<i>Clinical Study 4<sup>th</sup> Year Medical School A statistical survey of the healthcare facilities among the rural area population of Peshawar, Pakistan</i>	KMC, Peshawar, Pakistan

**VOLUNTEER WORK:**

---

2022 – 26	<i>Board of Directors, American Society of Neurophysiological Monitoring (ASNM)</i>	USA
2021-22	<i>Immediate Past-President, American Society of Neurophysiological Monitoring (ASNM)</i>	USA
5/21 -24	<i>Associate Editor, The Neurodiagnostic Journal (Official Journal of ASET – Neurodiagnostic Society)</i>	USA
2020-21	<i>President, American Society of Neurophysiological Monitoring (ASNM)</i>	USA
2019 - 20	<i>President-Elect, American Society of Neurophysiological Monitoring (ASNM)</i>	USA
2018-Present	<i>Visiting International Consultant Neurophysiologist Global Innovation LLC</i>	Dallas, TX, USA

2017	<i>Visiting Consultant Neurophysiologist,</i> Performed the First IONM during brain surgery in Pakistan	Abbottabad, Pakistan
2016	<i>Visiting Consultant Neurophysiologist,</i> Chairman, IONM Workshop I gave lectures and held discussions with spine surgeons from multiple centers of different cities—hands-on training during spine surgeries.	Rawalpindi, Pakistan
2016 – 20	<i>Board of Directors,</i> American Society of Neurophysiological Monitoring (ASNM)	USA
2016-Present	<i>Member Research and Evidence Base Scientific Committee</i> Saudi Spine Society	KSA
2016	Invited by the Government of Pakistan to introduce Intra Operative Neurophysiological Monitoring (IONM) in Pakistan's various cities. <b>Invited Under:</b> Presidents Programme for the Care of Highly Qualified Overseas Pakistanis (PPQP), Ministry of Federal Education and Professional Training, Islamabad, Pakistan.	
2015	<i>Visiting Consultant Neurophysiologist,</i> Performed IONM during Scoliosis surgery. I gave lectures and held discussions with spine surgeons and anesthesiologists from multiple centers of different cities.	Rawalpindi & Peshawar, Pakistan
1/15 - 2021	<i>Assistant Editor,</i> The Neurodiagnostic Journal (Official Journal of ASET – Neurodiagnostic Society)	USA
2014 - 2024	<i>Chairperson, ASNM Membership Committee,</i> American Society of Neurophysiological Monitoring (ASNM) Responsible for new member's recruitment and approvals; fellowship, awards, and board nominations	USA
2014 - Present	<i>Member, ASNM Education Committee,</i> American Society of Neurophysiological Monitoring (ASNM) Responsible for educational and conference activities	USA
2014 - Present	<i>Member, ASNM Research Committee,</i> American Society of Neurophysiological Monitoring (ASNM) Responsible for research activities	USA
2014 - Present	<i>Member, ASNM Guidelines &amp; Standard of Care Committee,</i> American Society of Neurophysiological Monitoring (ASNM) Responsible for IONM guidelines and standards	USA
2013 - Present	<i>Website Administrator</i> Southern Society of Electroneurodiagnostic Technologists (SSET)	USA
2012 - Present	<i>International Philanthropic IONM Program</i> Jahangiri Consulting LLC	Charlottesville, VA, USA
2011	<i>Principle,</i>	Charlottesville, VA, USA

Dar-ul-Huda of Charlottesville, Sunday school  
Administrative and teaching duties, including recruiting vice-principal, staff, and  
volunteers for Sunday school.

- 2007-11      *Charity Trips to Trinidad & Tobago,*      Charlottesville, VA, USA  
Supervised 3-4 annual charity trips of IONM during scoliosis surgeries
- 2008      *Visiting Consultant Neurophysiologist,*      Islamabad, Pakistan  
Performed IONM during various surgeries in medical centers  
I gave lectures and held discussions with seven large medical centers / post-graduate  
centres in four different cities.
- 1989-92      *KMC Student Welfare Organization,*      KMC, Peshawar, Pakistan  
I collected donations for free medical camps  
Conducted blood drives for needy patients.

### **SOCIETIES MEMBERSHIPS:**

---

- ASNM:      American Society of Neurophysiological Monitoring
- AANS:      American Association of Neurological Surgeons
- NASS:      North American Spine Society
- ASET:      American Neurodiagnostic Society
- ISIN:      International Society of Intraoperative Neurophysiology
- PINS:      Pakistan International Neuroscience Society
- APPNA:      Association of Physicians of Pakistani Descent of North America  
Neurology **MERIT**: Advancement of Neurology in Medical Teaching Institutions of  
Pakistan  
- Medical Education & Research International Training & Transfer of Technology initiative
- PMC:      Pakistan Medical Corporation
- SANS:      Saudi Association of Neurological Surgery
- Saudi Spine Society: Founding Member
-