

**Application for SNACC Director-at-large 2022 : Entry # 34****Name**

Letha Mathews

**Degrees**

M.B.B.S, FCAI

**Current Institution**

Vanderbilt University

**SNACC Member Since:**

2008

**Upload Your Headshot**

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**Upload your CV**

- [Mathews-CV-April-2022.docx](#)

**Services to SNACC (limit to no more than 5 most significant services):**

- SNACC Education Committee Member, Curriculum Committee
- SNACC PBLD Author, Reviewer, & Presenter at Annual meetings
- ICPNT Reviewer
- ICPNT Webinar moderator and Presenter

**Relevant leadership experience (limit to no more than 5):**

- Division Chief and Clinical Director of Neuroanesthesiology. Vanderbilt University Medical Center (VUMC), Nashville, TN
- Anesthesia Attending in charge (AIC) Main Operating rooms at VUMC
- Anesthesiology Resident Promotion Advisor
- Morbidity & Mortality Co-Director for Dept of Anesthesiology, VUMC
- Led Development of ERAS for Spine protocols at VUMC

**Your commitment to diversity, equity and inclusion (limit 50 words):**

Diversity strengthens the fabric of every institution. Inclusion of persons from varied backgrounds enriches everyone's understanding and ability to deliver services to a varied population. Persons from diverse backgrounds and different training institutions contribute strengths that synergistically lead to enhanced care, policies and practices. With my background and in my capacity as a leader in my institution sitting on different committees especially those involved in recruiting allows me to be a voice promoting and insisting on diversity. By mentoring and advocating for those from other than mainstream backgrounds, I help usher greater diversity. Above all, I feel a responsibility to demonstrate, as a member from a diverse background, professional and personal excellence to enhance the status of the diverse group. In doing so, I aspire to serve as a role model as well as learn from others.

## Application for SNACC Director-at-large 2022 : Entry # 34

### How do you envision advancing SNACC as a Director at Large (limit 150 words):

SNACC members and the leadership over the past several years have had a significant impact on my professional as well as my personal life. It is my turn to pay it forward.

The world of Neuroscience is rapidly advancing and it's exciting to be part of an organization whose members ask relevant scientific questions, finds the answers while continuing the quest for knowledge. I'm very proud of the important work that SNACC leaders and mentors do in disseminating knowledge to develop clinical excellence among its members and beyond. I would like to contribute to this important mission as a leader in SNACC.

When "burn out" is high among medical professionals, it is critical that we provide ways to preserve and protect individual health. I hope to serve as a resource to help mentor others as well as help develop systems that offer support for SNACC members.

Currently, there's dearth of Neuroanesthesiologists across the world, particularly in the USA. I would like to be an integral part of an organization that promotes the specialty and generate interest among medical students and residents so that "Neuranesthesiology and Neurocritical Care" becomes a sought after specialty much like Cardiac anesthesiology or Critical Care Medicine.

I look forward to the exciting years ahead for SNACC !

### Anything else you would like considered in your candidacy (limit 50 words):

I have been fortunate to have practiced medicine and trained in 3 different countries: India, England and USA. I would like to share what I have gleaned over the last several years in clinical, educational as well as leadership arena and contribute to the mission of SNACC, advance the art and science of the care of the neurologically impaired patient through education, training and research in perioperative neuroscience.

### Notes



#### Admin Notification (ID: 6241f2322e665)

added April 27, 2022 at 5:47 pm

WordPress was unable to send the notification email.



# LETHA MATHEWS M.B.B.S

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## Education

11/1975 - 01/1981 M.B.B.S. in Medicine from University of Gauhati, Assam, India

## Training

02/1981 - 03/1982 Internship in Rotating Clinical from Gauhati Medical College Hospital, Assam, India  
08/1984 - 04/1989 Residency in Anesthesiology from University of Manchester Hospitals and Durham County Hospital System, United Kingdom  
03/1991 - 03/1992 Fellowship in Neuro/Spine Anesthesia from University of Louisville, Louisville, Kentucky  
07/1992 - 06/1993 Fellowship in Pain Management from Vanderbilt University, Nashville, Tennessee  
\*07/1993 - 06/1994 Resident (CA-3) in Anesthesiology from Vanderbilt University, Nashville, TN

## Licensure and Certification

12/1985 - Present Medical, D.A. (U.K.) Diploma in anesthetics United Kingdom  
12/1988 - Present Medical, FCAI- Fellow of the College of Anesthetists in Ireland  
01/1990 - 01/1990 Medical, Education Commission for Foreign Medical Graduates  
12/1990 - 12/1990 Medical, Federal Licensure Examination  
09/1994 - Present Medical, Tennessee Medical License of Tennessee United States  
1995 - Present Medical, American Board of Anesthesiology  
1996 - 2006 Medical, Pain Management Certification by ABA

## Academic Appointments

09/1994 - 12/2004 Assistant Professor, Dept. Of Anesthesiology, Vanderbilt University Medical Center (Nashville, Tennessee)  
12/2004 - 12/2018 Associate Clinical Professor, Dept. of Anesthesiology, Vanderbilt University Medical Center (Nashville, Tennessee)  
11/2016 - 11/2018 Interim Division Chief, Neuroanesthesiology, Dept. Of Anesthesiology, Vanderbilt University Medical Center, Nashville, Tennessee

\*Required training to meet TN Medical Board Licensing requirement

12/2018 - Present Professor of Clinical Anesthesiology, Dept. Of Anesthesiology, Vanderbilt University  
Nashville, Tennessee  
Division Chief, Neuroanesthesiology, VUMC, Nashville, TN

## Hospital Appointments

09/1994 - Present Staff Anesthesiologist, Vanderbilt University Medical Center, Nashville, Tennessee  
09/2008 - Present Medical Director, Division of Neuroanesthesia, Anesthesiology, Vanderbilt University,  
Nashville, Tennessee

## Other Work Experience

1996 - 1999 Anesthesia Attending in Charge VUMC Main Operating Rooms, Anesthesiology,  
Vanderbilt University Medical Center, Nashville, Tennessee

## Professional Organizations

1999- Present Tennessee Society of Anesthesiologists  
2002- Present American Society of Anesthesiologists  
2006- Present International Anesthesia research Society  
2008- Present Society of Neurosciences in Anesthesia and Critical Care, Education Committee  
Member  
2013 - 2015 Association of Clinical Directors- AACD  
2015- Present Women in Anesthesiology  
2016 - 2019 NeuroCritical Care Society  
2018- 2021 International Society on the Perioperative Care of the Obese Patient

## Professional Activities

### Intramural

1996 - Present Clinical Competency Committee, Anesthesiology, VUMC  
1996 - 1998 Blood Bank Committee, Anesthesiology Representative, VUMC  
2006 - Present Resident Selection Committee, Anesthesiology  
2006 - 2009 AIC- Anesthesia attending in charge: As Anesthesia attending in charge of Main  
operating rooms at VUMC, I made daily assignments of anesthesia faculty, residents,  
and other providers. Managed the VOR board, and acted as liaison between surgeons,  
OR nursing and anesthesia providers.  
07/2006 - 07/2008 Morbidity & Mortality Co- Director for Dept of Anesthesiology: Selected appropriate  
perioperative cases to be presented at the M&M meeting and Co-ordinated & directed  
the monthly meetings.  
10/2014 - Present Pressure Ulcer Prevention Task Force Member: I serve on this committee which assesses  
perioperative hospital acquired pressure ulcers (HAPU). We meet once a month to  
evaluate HAPU and design strategies to prevent them.  
2015 - Present Neurosurgery Infection control Task Force: Meets once a month to identify cases of SSI  
and identify factors leading to wound infection and implement strategies to mitigate  
infection risks, Anesthesia Liaison.  
09/2015 - Present Promotion Advisor- CCC, Anesthesiology, As promotion advisor I review evaluations and  
scores and monitor progress of 9 anesthesia residents and report to CCC committee.

12/2016 - 07/2018	Complex Spine Board, Anesthesiology Lead: This committee met once a month and discussed patients with significant co morbid conditions contemplating Complex Spine surgery.
06/2017 - 01/2018	End of Day Task Force Member: This committee helped identify staffing challenges at the end of the day and find solutions to improve utilization of resources and predictability for anesthesiology faculty members
11/2019 - Present	OR Noise reduction committee, Anesthesiology, OR noise pollution adds to the stress level of patients and healthcare providers. We hope to measure the level of noise pollution and develop strategies to reduce noise in the OR esp. during critical times during surgery, Anesthesia Co- Lead, Represent anesthesia interest and serve as educator for noise reduction agenda

### Extramural

02/2016 - 2018	Reviewer for J of Medical Systems
03/2016 - Present	Education Committee Member SNACC: PBLD Author and Reviewer
10/2016 - Present	Trainee Engagement Committee, SNACC Co lead for Audio Podcast- Identify opportunities to promote the academic mission of Neuroanesthesiology as a specialty and promote education of medical students, residents, and fellows
09/2019 - Present	SAH Guidelines Committee Member, SNACC Consensus Statement Guideline Task force on Anesthetic Management of Intracranial Aneurysms. Help develop guidelines for perioperative management of patients with aneurysm
09/2019 - Present	ICPNT (International Council on Perioperative Neuroscience Training) Reviewer - Review applications for Neuroanesthesiology Fellowship accreditation
10/2019 - 2020	Reviewer for Journal of Neurosurgical Anesthesiology
05/2020 - 08/2020	Reviewer for British Journal of Neurosurgery
01/2021 - Present	Reviewer for Journal of Pain Medicine
10/2021 - 10/2023	ASA Committee on Perioperative Neurosciences: Member- This committee consists of a select group of anesthesiologists from various institutions that helps disseminate the goals of ASA leadership to the larger Neuroscience community. This committee also helps with developing scientific programs for ASA annual meetings and practice guidelines
10/2021 - 10/2022	ASA Committee on PBLD- Member: This committee reviews PBLDs submitted to ASA Annual Meeting program and makes recommendations to the chair of the committee,

### Teaching Activities

1998 - 2000	Malignant Hyperthermia, Lecturer, Nashville, TN, 1 hour lecture for anesthesia residents
10/2002 - 2002	Mastocytosis and Anesthesia, Nashville, TN, 1 hour invited lecture for perianesthesia nursing conference, Nashville, TN
2004 - 2007	Anesthesia for Pituitary Surgery, Lecturer, 2301 VUH, I give this lecture once a month to residents rotating through Neuroanesthesia
2005 - 2008	Intravenous Induction Agents, Lecturer, VUMC, 1 hour morning lecture for anesthesia residents
2005 - 2010	Airway Course, Instructor, VUMC, A Day long course conducted at VUMC. I taught Fiberoptic Bronchoscopic Intubation and Video Laryngoscope use
2006 - 2008	Anesthesia for Epilepsy surgery, Lecturer, VUMC, 1 hour lecture for Anesthesia Residents
2006 - 05/2008	Anesthesia for Neurovascular Surgery, Lecturer, VUMC, 1 hour lecture for anesthesia residents
2006 - 2014	Anesthesia and Critical Skills Simulator, CELA, VUMC, CA 1, CA 2 & CA 3 residents simulation was offered multiple times in a year. Topics- Pulmonary Embolism, Head Trauma, Difficult Airway, Pre-Eclampsia, Local Anesthetic Toxicity, Bradycardia with SAB, Blown IV at induction

05/2006 - 2007	Diabetes Mellitus and Anesthesia, Lecturer, 2301 VUH, One hour Lecture for Anesthesia Residents
2007 - 2015	Resident Morning Conference, Facilitator, VUMC, 30 min lecture/ PBLD/ Mock Orals for residents rotating through Neuroanesthesia 1-2 times/month
05/2007 - Present	Neuroanesthesia Topics, Facilitator, VUMC- 4648 TVC/ MCE Conference room, 30 min didactics -Intro to Neuro, PBLDs, Mock Oral, Quizzes, Landmark article discussions for residents rotating through Neuroanesthesia. I facilitate these sessions on an average of two per month
06/2007 - 2017	Positioning and associated Complications, lecture for 1 hour every June for incoming CA-1 Residents, 2301- Resident Library, Classroom lecture for 40 min followed by 20 min of hands-on demonstration in the OR
2008 - 2009	Management of Traumatic Brain injury, Lecturer, 1 hour lecture for anesthesia residents
02/2008 - 05/2010	Journal Club for Neuroanesthesia Division, Facilitator, Organized Journal Clubs. Recent and Relevant articles in neurosurgical anesthesia selected and mentored residents presenting the articles Topics- Isoflurane induced apoptosis, Hypothermia, Cerebro Vascular surgery
05/2008 - 05/2011	Fluid and Electrolyte Balance, CELA, 45-minute lecture followed by 45-minute Simulation - 3 times a year
07/2008 - 07/2008	Post Operative Cognitive Dysfunction, Facilitator, 30 min Morning didactics
08/2008 - 08/2008	Blood Transfusion, Facilitator, VUMC
12/2008 - 2018	Examiner, Light Hall CELA, Served as Examiner providing Mock Oral Practice sessions for Residents. 1-2 times per year. In addition, I give practice Mock orals for residents and fellows before their ABA Oral Board Exam
05/2009 - 05/2009	Malignant Hyperthermia, 1 hour lecture on MH: Pathophysiology of MH, Diagnosis and Anesthetic Implications
2011 - 2011	Anesthesia Circuits, Lecturer, Anesthesia Circuits
10/2011 - 2011	Anesthesia for Pituitary, Facilitator, 30 min morning conference for anesthesia residents rotating through Neuroanesthesia
11/2011 - 2011	Surfactant, Facilitator, VUMC, 30 min morning session for MSA residents
11/2011 - 2011	Traumatic Brain injury, lecturer, 2301 TVC
12/2011 - 2011	Endoscopic Neurosurgery, Facilitator, 2301 TVC, 30 min morning conference for anesthesia residents rotating through Neuroanesthesia
02/2012 - 2012	Anesthesia for Pituitary Surgery, Faculty Facilitator, 2301 TVC
03/2012 - 2012	OSA- Evidence Based Anesthesia, Facilitator, VUMC
03/2012 - 2012	Anesthesia for Functional NSGY, Facilitator, 30 min morning conference for anesthesia residents rotating through Neuroanesthesia
04/2012 - 2012	Normothermia- Evidence based Anesthesia, Facilitator, 2301 TVC
04/2012 - 2012	Introduction to Neuroanesthesia, Lecturer
05/2012 - 2012	Anesthesia for Functional NSGY, Facilitator
05/2012 - 2012	Introduction to Neuro and Monroe- Kelly, Facilitator, 30 min morning conference for anesthesia residents rotating through Neuroanesthesia
06/2012 - 2012	Intro to Anesthesia, Lecturer, 1 hour lecture
07/2013 - 07/2012	Basic Monitoring, Instructor, Hands on teaching on Basic Monitoring such as BP, HR, ECG etc. for 1 <sup>st</sup> year medical students
10/2014 - 2014	Anesthesia for Functional Neurosurgery, Facilitator, 4648 TVC, As part of morning didactics for residents rotating thru Neuroanesthesia. Mentor the resident and make available current literature to the resident presenting.
06/2015 - 06/2015	Airway and Central Line placement: Intern Boot Camp, Simulation Center- Light Hall, Instructor for Airway management and Central line placement for Interns in Anesthesia and surgery- 8 hours
02/2017 - 02/2017	External Teaching: Airway, Ventilation, Sedation & Status Epilepticus, Course Instructor, Pune, India, ENLS (Emergency Neurologic Life Support) is a course offered

	by Neurocritical Care society of USA. It's an all-day course with multiple modules. To teach at this course, the instructor must be certified by NCS.
11/2017 - 11/2017	Anesthesia for Neurosurgery, VUMC- 6T3 conference Room, Anesthetic Challenges for Neurosurgery, positioning, pharmacology of drugs used for neurosurgical anesthesia
01/2018 - 02/2018	Airway, Ventilation, Sedation & Status Epilepticus, Instructor, Mumbai, India, ENLS (Emergency Neurologic Life Support) is a course offered by Neurocritical Care society of USA. It's an all-day course with multiple modules. To teach at this course, the instructor must be certified by NCS.
05/2018 - Present	Examiner, Mock Oral Board for 2 residents starting at 5 pm in CELA 4th floor
06/2018 - Present	Instructor, CELA, Simulation of common scenarios- Hypoxia, allergic reaction in the OR for CA-1 residents
07/2018 - Present	Introduction to Neuroanesthesia Basics, Instructor, LH 411, Introduction to Neuroanesthesia - Basics for Craniotomy, Neurovascular and Spine surgery
09/2018 - Present	Emergency Neurologic Life Support: Coma, Status Epilepticus, Airway, Ventilation, Sedation, Louisville, KY. This is a whole day course administered by NeuroCritical Care Society of USA. I taught 3 courses
10/2018 - Present	Examiner, VUSM CELA, 2-hour session with 2 residents administering mock orals and giving feedback
02/2019 - Present	Perioperative Management of Subarachnoid Hemorrhage, VUSM- Light Hall, One hour morning lecture (PBLD Format) for CA-2 and CA-3 Residents
05/2019 - Present	Examiner, VUSM -CELA, 2-hour session with 2 residents administering mock orals and giving feedback
06/2019 - 06/2019	Basic Troubleshooting Instructor, VUSM-CELA, 3-hour simulation for rising CA-1 residents on Basic Trouble shooting
07/2019 - Present	Multiple topics: Neuroanesthesia Topics, MCE 3, Morning didactic for residents rotating through Neuroanesthesiology- 30 min
10/2019 - 10/2019	Examiner, CELA - LH, 2 hours of doing Mock Oral board exams with 2 residents
11/2019 - 11/2019	Examiner, CELA- LH, 2 hours of doing Mock Oral board exams with 2 residents
02/2020 - 02/2020	Examiner
05/2020 - 05/2020	Examiner
06/2020 - 06/2020	Positioning - PBLD based Teaching, PBLD based (New format) for June Ca-I survivor series
10/2020 - 10/2020	Examiner, 2 hours of administering Mock Oral Exam for Anesthesiology Residents followed by feedback
01/2021 - Present	Neuroanesthesia Resident Series, I give a lecture at least once a month for residents rotating through Neuroanesthesia - 30 min
02/2021 - Present	Mock Oral board Examiner, Nashville, TN, twice a year I participate in providing Mock Oral examination for residents or fellows in the program at VUMC
06/2021 - 06/2021	Positioning Anesthesia and Complications, I hour lecture with hands on demonstration on various position in surgery and complications

## Research Supervision / Mentorship

12/1994 - 06/1995	Efrain Rivera Jr, M.D. (Resident, Resident)
07/1996 - 06/1997	Meera Chandrasekar, M.B.B.S. VUMC, Nashville, TN, Current Position: Faculty. (Resident, Resident)
06/1997 - 1998	Christina Stoica, M.D. (Resident, Resident)
07/1999 - 06/2000	Juan Zhai, M.D. (Resident, Resident)
10/1999 - 2002	MMEP (Minority Medical Education Program) Meharry Medical College. (Undergraduate, Undergraduate)
07/2002 - 06/2003	Michael Miller, M.D. (Resident, Resident)
06/2003 - 06/2005	Wenying Niu, M.D. (Resident, Resident)



07/2003 - 05/2004	Bradley Hill, M.D. (Resident, Resident)
07/2003 - 06/2004	David Lasbury, M.D. (Resident, Resident)
06/2004 - 06/2007	Sarah Turner-Schafer, M.D. (Resident, Resident)
07/2004 - 07/2005	Brian Kendall, M.D. (Resident, Resident)
07/2004 - 06/2006	Shaba Ferdowsi, M.D. (Resident, Resident)
07/2005 - 06/2006	Stuart McGrane, M.B.B.Ch. VUMC, Nashville, Current Position: Faculty. (Resident, Resident)
07/2006 - 07/2007	Kelly Kirby Ortega, M.D. VA Hospital, Nashville, Current Position: Faculty. (Resident, Resident)
07/2007 - 06/2008	Tracy Jobin, M.D. VUMC, Current Position: Faculty, Anesthesiology. (Resident, Resident)
07/2007 - 06/2009	McKay Bateman, M.D. Current Position: Anesthesiologist. (Resident, Resident)
07/2008 - 06/2011	Joel Chang, M.D. Current Position: Graduated. (Resident, Resident)
06/2009 - 07/2013	Erin Brockway, M.D. VUMC, Current Position: Anesthesia Faculty. (Faculty, Faculty)
07/2012 - 06/2915	Shannon Stough, M.D. VUMC, Current Position: Graduated. (Resident, Resident)
06/2013 - 06/2017	Jeanette Hansen, M.D. VUMC, Current Position: Graduated from Residency. (Faculty, Faculty)
2016 - 2017	Ruhana Binte Shakhawat Vanderbilt University. (Undergraduate, Undergraduate)
11/2017 - 04/2018	Eric Hosack Vanderbilt University. (Undergraduate, Undergraduate)
02/2019 - 04/2019	Gerrica Alexander, B.A. Vanderbilt University. (Undergraduate, Undergraduate)
05/2019 - 07/2019	Marissa Huggins, B.A. Vanderbilt University. (Undergraduate, Undergraduate)
09/2019 - 12/2019	Tuzo Muwambe Vanderbilt University Undergraduate Student potentially exploring a career in Medicine. (Undergraduate, Undergraduate)
08/2020 - Present	Shobana Rajan, M.B.B.S. Assoc. Professor of Anesthesiology, UT McGovern Medical School, Houston TX.
10/2020 - Present	Tony Chang, M.D. VUMC, Current Position: Assistant Professor of Anesthesiology. (Faculty, Faculty)
11/2020 - 2/2022	Marc McLawhorn, M.D. VUMC, Current Position: Asst Prof of Anesthesiology. (Faculty, Faculty)

## Other Significant Activities

06/2008	Curriculum and Course Development: Developed Curriculum for Neuroanesthesia rotation for Residents. Developed Live Performance Competency Assessment (LPCA) for Craniotomy for residents rotating through Neuroanesthesia
06/2012	Curriculum and Course Development- Revision: Revised Curriculum for Residents rotating through Neuroanesthesia along with Dr. Sheena Weaver. Separate Curriculum for Junior rotation and Senior rotation was developed at this time
03/2015	Poster Moderator: Poster Moderator - IARS Annual Meeting, Honolulu, HI- March 2015
10/2015	Poster Moderator-ASA- American Society of Anesthesiologists Annual Meeting, San Diego, CA: Research Poster Moderator- Moderate Poster sessions on Clinically Challenging Cases
03/2016	Research Abstract Reviewer- IARS: Review research abstracts submitted to IARS and grade the abstracts
04/2016	Center For Evidence Based Anesthesia (CEBA) guideline: Anesthesia Faculty Co- Lead for Development of CEBA guideline for patients undergoing Transphenoidal Pituitary Resection- Streamline the process, reduced LOS for patients.
10/2016	Poster Moderator-ASA- American Society of Anesthesiologists Annual Meeting, Chicago, IL: Moderated Poster Session for Medically Challenging Cases
10/2016	Poster Moderator for Medically Challenging cases - ASA: Moderator Poster discussion for medically challenging cases at the request of ASA.

10/2017	Poster Moderator-ASA- American Society of Anesthesiologists Annual Meeting, Boston, MA: Moderated poster session for Medically Challenging cases
02/2018	SOP (Standard Operating Protocols): Spear headed the revision of several SOP for Anesthesia neurosurgical procedures. I personally revised the protocol for Acute Stroke Intervention, Deep Brain Stimulation Surgery
05/2019	Enhanced Recovery After Surgery (ERAS)- Anesthesia Co-lead and led the development of ERAS protocol for Complex Spine Surgery: Led the development of ERAS pathway following evidence Based guidelines (CEBA) in collaboration with Spine surgeons, ICU team, Spine NPs, and Perioperative Services. Some of the recommendations have already been launched.
05/2019	Enhanced Recovery for Basic Laminectomy: Developed evidence-based protocol for simple laminectomy to diminish practice variance among providers.
05/2019	Enhanced Recovery after Basic Spine fusion: Led the development of ERAS protocols for Basic/Simple spine fusion with Dr. David Edwards
01/2021	ICPNT (Int Council on Perioperative Neurosciences Training)- Webinar Moderator: Case based Discussion Moderator- Case presentation by Dr. Yibing, China
01/2022	ERAS for Spine Surgery: ERAS for Spine Surgery-Anesthesia Co champion Multidisciplinary project for elective spine surgery, VUMC, Nashville, TN

## Publications

### Peer Reviewed Publications

#### Research Articles

1. Turner S, **Mathews L**, Pandharipande P, Thompson R. Dolasetron-induced torsades de pointes. Journal of clinical anesthesia 2007 December;19(8):622-5. PMID: 18083478.
2. Hughes CG, **Mathews L**, Easdown L J, Pandharipande P. The McGrath Video laryngoscope in Unstable C-spine surgery. 2010 October;575-576. PMID: 21056821.
3. Zuckerman SL, Forbes JA, Mistry AM, Krishnamoorthi H, Weaver S, **Mathews L**, Cheng JS, McGirt MJ. Electrophysiologic deterioration in surgery for thoracic disc herniation: impact of mean arterial pressures on surgical outcome. Eur Spine J. 2014 November;23(11):2279-2290. PMID: 24898311.
4. **Mathews, Letha**; Kla, Koffi M.; Marolen, Khensani N.; Sandberg, Warren S.; Ehrenfeld, Jesse M. Measuring and Improving First Case On-Time Starts and Analysis of Factors Predicting Delay in Neurosurgical Operating Rooms. Journal of Neurosurgical anesthesiology 2015 July;27(3):203-207. PMID: 25272065.
5. **Mathews L**, Camallier C.R, Kla K.M, Mitchell M.D, Konrad P.E, Neimat J.S, Smithson K.G. Effects of Dexmedetomidine on Microelectrode recordings of the Subthalamic Nucleus during Deep Brain Stimulation Surgery. Stereotactic and Functional Neurosurgery 2017 March;95(1):40-48. PMID: 28132061.
6. Rushna Ali, Jeewon Chon, **Letha Mathews**, Hong Yu, Peter Konrad. Novel Technique for Insertion of Cervical Spinal Cord Stimulator Percutaneous Leads: Technical Note and Institutional Experience. World Neurosurgery 2018 August; 119:118-122.
7. Lele AV, Mills B, Vavilala MS et al International Multicenter Survey of Perioperative Management of External Ventricular Drains: Results of the EVD Aware Study – JNA 2020: 32 (2) 132-139- Collaborator
8. Thamjamrassri T, Lele AV et al JNA 2022 34(10 21-28: A Narrative Review of the Published Literature, Hospital Practices, and Policies Related to External Ventricular Drains in the United States: The External Ventricular Drain Publications, Practices, and Policies (EVDPop) Study- Collaborator

#### Review Articles

1. Neeley R, Smith R, **Mathews, L**. Enhanced Recovery After Neurosurgery. Current Anesthesiology Reports 2021 August;11(3):298-305.
2. **Mathews L**, Kla, KM- Anesthesia for Adults with Acute Spinal Cord Injury- Up to Date 2021 Oct

3. **Mathews L**, Kla KM- Anesthesia for Adults with Chronic Spinal Cord Injury Up to Date 2021 Oct

### Case Reports

1. Sung Min Kim, James L Blair, **Letha Mathews**. Anesthetic Management of Patient with Craniopharyngioma in a Covid-19 suspect patient. SNACC Newsletter 2020 May.
2. Greening, **Mathews**, Blair. Apparent Dexmedetomidine Induced Diabetes Insipidus. Anesthesia & Analgesia 2011 December;113(6):1381-1383. PMID: 22003216.

### Abstracts

1. Ahilan Sivaganesan, Inamullah Khan, Letha Mathews, Byron Stephens, Clinton Devin. Reductions in Length of Stay and Blood Loss with Standardized Care by Neuro-Anesthesiologists. 2018 March; PMID: 29517273.
2. Letha Mathews, Koffi M Kla. Perioperative Management Practices for Neurosurgical procedures in sitting position in patients with Patent Foramen Ovale. Journal of Neurosurgical Anesthesiology 2013 October;25(4).
3. Sheena Weaver, Buffy Krauser Lupear, Candi Haggard, Letha Mathews. Reducing Hospital Acquired conditions: A quality Improvement Journey in Perioperative Neurosurgical Pressure Ulcer prevention. Journal of Neurosurgical Anesthesiology. 28(4):451-521, October 2016, 2016, October;28(4).
4. Douglas Hester, Jane Easdown, Jackie Woodruff, Letha Mathews. Case Series: Anesthetic Management for MR-guided Laser Interstitial Thermal Therapy (MRG-LITT) for Epilepsy. Journal Of Neurosurgical Anesthesiology 2017 October;29(4).
5. Candi Haggard, Buffy Krauser Lupear, Sheena Weaver, Letha Mathews. Prevention of Perioperative Hospital Acquired Pressure Injuries: Prone and Park Bench Position for Neurosurgical Procedures. 2018 June.

### Research Articles

1. WCV Parris, PK Janicki, BW Johnson, L Mathews. Pulsating magnetic field therapy (PMFT) induced hypoalgesia is associated with the increased levels of Dynorphin A 1-8 in the brain and spinal cord of the rat model of painful peripheral mononeuropathy. Abstracts of the 1993 Annual ASA Meeting, Washington DC, Anesthesiology, 1993, 79 (Suppl. 3A) A857. 1993.
2. WCV Parris, PK Janicki, BW Johnson, L Mathews. Brain, spinal cord, and plasma levels of substance P (SP), met-enkephalin (ME) and dynorphin A 1-8 (DYN) in rat model of chronic neuropathic pain. Abstracts of the 47th Postgraduate Assembly Meeting of the New York Society of Anesthesiologists, New York, Dec. 11-15, 1993, P9049. 1993.
3. WCV Parris, PK Janicki, BW Johnson, L Mathews. The effect of pulsating magnetic field (PMF) and infrared diode laser (IRL) treatment on substance P (SP), met-enkephalin (ME) and dynorphin A 1-9 (DYN) in the spinal cord and brain in the rat model of painful peripheral mononeuropathy. Abstracts of the 12th Annual Scientific Meeting of the American Pain Society, Nov. 4-7, 1993, Orlando, Florida P93559. 1993.
4. WCV Parris, PK Janicki, BW Johnson, L Mathews. Infrared laser diode irradiation has no behavioral and biochemical effect on pain in the chronic mononeuropathy produced by sciatic nerve ligation in rat. Abstracts of 1993 Annual ASA Meeting, Washington DC, Anesthesiology, 1993, 79 (Suppl. 3A), A861. 1993 October.
5. WCV Parris, PK Janicki, BW Johnson, L Mathews, JL Horn: Ketorolac tromethamine produces analgesia after intrathecal administration in rat model of chronic neuropathic pain. Abstracts of 19th Annual Meeting of American Society of Regional Anesthesia, Chicago, Illinois, Apr. 7-10. 1994. 1994.
6. Parris WC, Janicki PK, Johnson BW Jr, **Mathews L**. Infrared laser diode irradiation has no behavioral or biochemical effect on pain in the sciatic nerve ligation-induced mononeuropathy in rat. Anesthesia progress 1994; 41(4):95-9. PMID: 8934959 PMCID: PMC2148839.
7. Parris WC, Janicki PK, Johnson B Jr, Livengood J, **Mathews L**. Persistent pain associated with long-term intrathecal morphine administration. Southern medical journal 1996 April;89(4):417-9. PMID: 8614885.

## Book Chapters

1. Crawford LC, Mueller D, **Mathews L**. Anesthetic Considerations for Functional Neurosurgery. *Anesthesiology Clinics* 2021 39(1)227-243
2. **Mathews L**. Anesthesia for Awake craniotomy. *Essence of Anesthesia Practice*. Edition 3. Editors: Lee A Fleisher, Michael F Roizen. United States: Elsevier; 2010; 443-443. ISBN: 978-1-4377-1720-4.
3. **Mathews L**, Lee L.A. Anesthesia for patients with Acute with Spinal Cord injury. Up to Date. Editors: Jeffrey Pasternak, Marianna Crowley. United States: Up to Date; 2016 June.
4. Lee, L.A; **Mathews L**. Anesthesia for patients with Chronic Spinal Cord Injury. Up to Date. Editors: Jeffrey Pasternak & Marianna Crowley. United Kingdom: Up to Date; 2016 October.
5. **Letha Mathews**, John. A. Barwise. Anesthetic Management of patients with Refractory Intracranial Hypertension. *Advanced Perioperative Crisis Management*. Editors: Matthew McEvoy, Cory Furse. United States: Oxford University Press; 2017; 1 492-499. ISBN: ISBN-13: 978-0190226459.
6. **Letha Mathews**, Jesse M. Ehrenfeld. Neuromuscular Blocking Drugs and Postoperative Pulmonary Complications. *Current Anesthesiology Reports*. Editors: Glenn. M. Murphy. United States: Springer Link; 2018 April.
7. **Letha Mathews**, Jason Lane. Management of Difficult Airway in the MRI suite. *Straker and Rajan's General Anesthesia, A Problem Based Learning Approach*. Editors: Shobana Rajan & Starker. United States: Oxford University Press; 2018 October; To be published in Oct 2018.
8. **Letha Mathews**. Management of Patient with Traumatic Brain Injury/Epidural Hematoma. *Problem Based Learning Discussion in Neuroanesthesia and Neurocritical Care*. Editors: Prabhakar, Rajan, Kapoor & Mahajan. Singapore: Springer; 2020 March; 1 235-244. ISBN: ISBN 978-981-15-0458-7.

## Others

1. Letha Mathews. Impact of Perioperative protocol on length of ICU and Hospital Stay after Complex Spine surgery- Commentary for SNACC website. 2021 February.

## Presentations

### Presentations at Scientific Meetings

1. WCV Parris, PK Janicki, BW Johnson, L Mathews. 7th Congress of Pain. IASP; Paris, France. 1993 Aug; Pulsating magnetic therapy (PMT) attenuates hyperalgesia in rat model of neuropathic pain.
2. WCV Parris, PK Janicki, BW Johnson, L Mathews, JL Horn. Annual Meeting of American Society of Regional Anesthesia. American Society of Regional Anesthesia; Chicago, Illinois. 1994 Apr; Ketorolac tromethamine produces analgesia after intrathecal administration in rat model of chronic neuropathic pain.
3. C. Hughes, Letha Mathews, L.J Easdown, James. L. Blair. ASA Annual meeting. ASA; Orlando, Florida. 2008 Sep; Use of McGrath Video Laryngoscope in patients with C-spine disease.
4. Kla K.M, Mathews L, Marolen K.N, Ehrenfeld J.M, Society for Neuroscience in Anesthesiology and Critical Care. SNACC; Washington, District of Columbia. 2012 Oct; Measuring and Improve First Case On-Time Starts.
5. Mathews L, Kla K.M, Smithson K.G. ASA Annual Meeting. ASA; Washington, District of Columbia. 2012 Oct; Predictors of Delayed First Case Starts in Neurosurgical Operating Rooms.
6. Candi Haggard, RN, Joselito Tiamson, BSN RN, Letha Mathews, MD of Anesthesiology, James Blair, DO. Journal of Wound Ostomy and Continence Nursing WOCN(R) Society's 46th Annual Conference. Nashville, Tennessee. 2014 Jun 21; Preventing Pressure Ulcer in the Prone Perioperative Patient.
7. Letha Mathews, Dr. Monica Vavilala. ASA Annual Meeting. ASA; Orlando, Florida. 2019 Oct 21; Perioperative Management of Acute Spinal Cord Injury- 30 min Panel Presentation.
8. Tarnal V, Dunn L, Bendo A, Mathews L. ASA Annual Meeting. American Society of Anesthesiology; San Diego, California. 2021 Oct 12; Acute Spinal Cord Injury and Management.

### **Problem based learning discussion**

1. ASA Annual meeting. ASA; Chicago, Illinois. 2011 Oct; Anesthesia for Deep Brain Stimulation. It's just a MAC case!!!.
2. Letha Mathews M.D. IARS Annual Meeting. IARS; Honolulu, Hawaii. 2015 Mar 24; Transsphenoidal Resection of Pituitary Tumors and Anesthetic Implications for Patients with Cushing's Disease.
3. Letha Mathews. American Society of Anesthesiologists Annual Meeting. ASA; San Diego, California. 2015 Oct 24; Awake Craniotomy in a Patient with Obstructive Sleep Apnea.
4. Letha Mathews. IARS Annual Meeting. IARS; Washington D.C, District of Columbia. 2017 May 6; Perioperative Management of patient with closed head injury for non-neurological procedure.
5. Letha Mathews. IARS Annual Meeting. IARS; Chicago, Illinois. 2018 Apr 28; Perioperative Management of patient with closed head injury for non-neurological procedure.
6. Letha Mathews. IARS Annual Meeting. IARS; Montreal, Canada. 2019 May 19; Perioperative Management of Patients with Closed Head Injury for Non neurological procedure.
7. Letha Mathews. SNACC Annual meeting. SNACC; Phoenix, Arizona. 2019 Sep 14; Perioperative Management of patient with C-spine injury.
8. Letha Mathews. IARS National Meeting. IARS; San Francisco, California. 2020 May 18; The weekend Spine Trauma: "It's no Big Deal". Accepted- meeting cancelled

### **Medically Challenging Cases**

1. McKay Bateman; Letha Mathews. ASA Annual Meeting. ASA; Orlando, Florida. 2008 Oct; Thalamic Storm following Endoscopic Brain Surgery.
2. Allison Greening, Letha Mathews, James L Blair. ASA Annual meeting. ASA; 2010 Oct; Apparent Dexmedetomidine Induced Diabetes Insipidus.
3. Elizabeth Embury, MD, Letha Mathews, MD. ASA Annual Meeting. ASA; San Francisco, California. 2013 Oct; Recurrent Postoperative Stridor following Ependymoma resection.
4. Meredith Kingeter, Letha Mathews. ASA Annual Meeting. ASA; San Diego, California. 2015 Oct; Severe Electrolyte abnormalities Secondary to Unrecognized ectopic ACTH secretion in skull base esthesioneuroblastoma.
5. Sarada Eleswarapu, Meredith Kingeter, Letha Mathews. ASA Annual Meeting. ASA; Boston, Massachusetts. 2017 Oct; Awake Intubation in a Morbidly Obese patient with tracheal stenosis presenting with acute epiglottitis.
6. Andrew Maynard M.D, Letha Mathews M.D. ASA Annual Meeting. ASA; San Francisco, California. 2018 Oct 14; Perioperative Management of Repair of Recto thecal Fistula (Currarino Syndrome).
7. Wael Sassouh M.D, Shobana Rajan, Letha Mathews, Jamie E David. ASA Annual Meeting. ASA; Orlando, Florida. 2019 Oct 21; Emergency Neurosurgery in the parturients.

### **External Grand Rounds**

1. Letha Mathews. University of Louisville; Louisville, Kentucky. 2017 Apr 21; Updates in Anesthesia and Anesthesia for Awake Craniotomy.
2. Letha Mathews. Norton Healthcare; Louisville, Kentucky. 2018 Jan 5; Anesthesia for Interventional Neurosurgery.

### **Internal Grand Rounds**

1. Letha Mathews. Dept of Anesthesia Grand Rounds. Vanderbilt University Medical Center; Nashville, Tennessee. 2012 Jun 20; Anesthesia for Deep Brain Stimulation Surgery.
2. Letha Mathews, Sheena Weaver, Susan Hodgin. Quarterly Morbidity and Mortality Meeting - Perioperative Services. Perioperative Services; Nashville, Tennessee. 2015 Jun 6; Perioperative Pressure Ulcers.
3. Rohan Chitale M.D, Letha Mathews. Vanderbilt University Medical Center; Nashville, Tennessee. 2018 Jun 8; Acute Stroke Intervention.
4. Mathews, Letha. Morbidity and Mortality Meeting. Dept of Anesthesiology, VUMC; Nashville, Tennessee. 2021 Mar 26; Deep Brain Stimulation and Complications.

### **Podcasts / Webinar**

1. Letha Mathews. SNACC- Society of Neurosciences and Critical Care; 2018 Apr 4; Anesthetic Management of a Patient with Traumatic Brain Injury scheduled for Non-Neurologic Surgery. Shobana Rajan, MD in conversation with Letha Mathews, MD.
2. Dr. Letha Mathews in conversation with Dr. Ugan Reddy. SNACC Education committee; WEB PODCAST2019 Dec 4; ICU management of Acute Stroke.
3. Mathews, Letha, 3 other presenters- 1 each from Canada, Germany, India. ICPNT (International Council for Perioperative Neuroscience Training); Virtual 2021 Jan 7; Anesthesia for awake Craniotomy.
4. Alexander Papangelou, Letha Mathews. SNACC; N/A2021 Feb 17; Anesthesia for Craniotomy - Podcast for Fellows and Residents Audio Corner.

### **Other**

1. Departmental Morbidity and Mortality Conference: Sara Larosa, Letha Mathews. Departmental Morbidity and Mortality Conference. Dept of Anesthesiology, VUMC; Nashville, Tennessee. 2018 Jul 27; Perioperative Stroke.

### **Workshop**

1. Letha Mathews & Sheena Weaver. Nashville, Tennessee. 2015 Feb 11, Feb 2019; Park bench Positioning Workshop.
2. Emergency Neurological Life Support Instructor (ENLS sponsored by NCCS)- Pune, India Jan 2017. Mumbai India Jan 2018, Louisville KY Sept 2018.

### **Invited Presentation – National**

1. Acute Spinal Cord Injury and Perioperative Management: Mathews, L, Vavilala, MS, Smith M, Bendo AA- Panel at ASA Annual Meeting 2019
2. Mathews L, Sharma D, Naik B. ASA Annual Meeting. ASA; Accepted2020 Oct; Acute Spinal Cord Injury -Panel Presentation. Meeting Cancelled
3. Mathews, L, Gupta D, Carabini L. ASA Annual Meeting. ASA; Virtual- Accepted2020 Oct; Pro- Con Debate- ERAS for SPINE SURGERY. Meeting Cancelled
4. Mathews L, Rajan S, Donald R: Opioid Free Anesthesia for Spine surgery; Harmful Hoax or Imperative Innovation\_ A Pro Con Debate- Moderator; IARS Annual Meeting (Virtual) 2022 March 19