Curriculum Vitae

Carlos A. Artime, M.D.

PRESENT TITLE: Associate Professor of Anesthesiology

Clinical Executive Vice Chair ad interim Vice Chair of Finance and Operations

ADDRESS: McGovern Medical School

The University of Texas Health Science Center at Houston (UTHealth)

Department of Anesthesiology 6431 Fannin, 5.020 MSMB

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CITIZENSHIP: USA

UNDERGRADUATE EDUCATION:

B.S.E. Biomedical Engineering, Magna Cum Laude, 2001

Minor in Molecular Biology Vanderbilt University Nashville, Tennessee

GRADUATE EDUCATION:

M.D. Doctor of Medicine, 2005

Baylor College of Medicine

Houston, Texas

POSTGRADUATE EDUCATION:

Transitional Year Internship, 2005 – 2006 The University of Texas Medical School at Houston Houston, Texas

Anesthesiology Residency, 2006 – 2009 Neuroanesthesia Focus University of Pennsylvania Philadelphia, Pennsylvania

ACADEMIC APPOINTMENTS:

Assistant Professor. 2009 – 2015 McGovern Medical School The University of Texas Health Science Center at Houston (UTHealth) Houston, Texas

Associate Operating Room Director, 2013 – Present Memorial Hermann Hospital – Texas Medical Center

Associate Professor, 2015 – Present McGovern Medical School The University of Texas Health Science Center at Houston (UTHealth) Houston, Texas

Vice Chair of Finance and Operations, 2018 – Present McGovern Medical School Department of Anesthesiology The University of Texas Health Science Center at Houston (UTHealth) Houston, Texas

Director of Obstetric Anesthesia ad interim, 2019 McGovern Medical School Department of Anesthesiology The University of Texas Health Science Center at Houston (UTHealth) Houston, Texas

Clinical Executive Vice Chair ad interim, 2019 – Present McGovern Medical School Department of Anesthesiology The University of Texas Health Science Center at Houston (UTHealth) Houston, Texas

HOSPITAL APPOINTMENTS:

Staff Anesthesiologist, 2009 – Present Memorial Hermann Hospital – Texas Medical Center

Staff Anesthesiologist, 2009 – Present Lyndon B. Johnson General Hospital

LICENSURE:

Texas Medical License # N1983, February 2009

BOARD CERTIFICATION:

American Board of Anesthesiology, 2010 Actively enrolled in Maintenance of Certification

PROFESSIONAL DEVELOPMENT:

Clinical Research Curriculum, 2012 – 2014
Certificate in Clinical Research
University of Texas Health Science Center at Houston (UTHealth)
Center for Clinical Research and Evidence-Based Medicine

Clinical Safety and Effectiveness Program, 2014 – 2015 University of Texas Health Science Center at Houston (UTHealth) and Memorial Hermann Hospital – TMC

Operating Room Management Training Course, 2017 Franklin Dexter MD, University of Iowa

Certificate in Physician Leadership and Management, 2017 University of Houston Clear Lake and Memorial Hermann Hospital – TMC

Certificate Program in Business Administration, 2018 American Society of Anesthesiologists

Executive Leadership Institute, 2020
University of Texas Health Science Center at Houston (UTHealth)

PROFESSIONAL ORGANIZATIONS:

Regional

Texas Society of Anesthesiologists (TSA), 2010 – Present

National

American Society of Anesthesiologists (ASA), 2010 – Present

<u>International</u>

Society for Neuroscience in Anesthesiology and Critical Care (SNACC), 2011 – Present Society for Airway Management (SAM), 2013 – Present SAM Research Committee, 2016 – Present

HONORS AND AWARDS:

Dean's Teaching Excellence Award, McGovern Medical School at UTHealth, 2010-2015 Best Attending in Neuroanesthesia, 2015-2017 Houstonia Magazine Top Doctors, 2020

EDITORIAL POSITIONS:

Journal Reviewer (ad hoc), Respiratory Care Journal, 2015-2016 Journal Reviewer (ad hoc), A&A Practice, 2019 Journal Reviewer (ad hoc), British Journal of Neurosurgery, 2019 Journal Reviewer (ad hoc), Journal of Neurosurgical Anesthesia, 2020

SERVICE ON MCGOVERN MEDICAL SCHOOL COMMITTEES:

Faculty Senate, 2011 – 2017

Medical Student Interviewer, 2014 - Present

Student Evaluations and Promotions Committee, 2014 – Present

Committee for Protection of Human Subjects (Institutional Review Board), 2016 – Present

Professional Liability Committee, 2016 – Present

SERVICE ON UTHEALTH DEPARTMENT OF ANESTHESIOLOGY COMMITTEES:

Neuroanesthesia Pod, 2009 – Present

Anesthesia Board Runner, 2011 - Present

Resident Recruitment Committee, 2012 - Present

Resident Research Committee, 2013 - 2018

Clinical Competency Committee, 2013 – Present

Program Evaluation Committee, 2013 – Present

Associate Operating Room Director, 2013 – Present

Peer Review Committee, 2014 – Present

Departmental Executive Team, 2016 - Present

Scheduling Team, 2016 - Present

Finance Team, Chair, 2016 - Present

Faculty Recruitment Team, 2016 - Present

Clinical Research Committee. Co-Chair. 2017 – 2019

Disaster Preparedness Team, 2017 – Present

Main OR Board Runner Team, Chair, 2018 - Present

Sarofim Transition Team, *Chair*, 2019 – 2020

COVID Leadership Team, 2020 - Present

SERVICE ON UTMSH AFFILIATED HOSPITAL COMMITTEES:

Memorial Hermann Hospital – TMC

Development of Anesthesia Drug Library for Alaris[®] Infusion Pump, 2009

Ethics Subcommittee for DNR/DNI Orders During Sedation or Anesthesia, 2010

Development of Deep Sedation Credentialing Exam and Study Materials, 2011

Anesthesia Liaison to Pharmacy, 2012 – Present

Anesthesia Liaison to OR Control Tracking Project, 2013 – Present

Anesthesia Team Leader, Perioperative Safety Committee, Perioperative Patient Evaluation Project, 2013 – 2015

Pharmacy and Therapeutics Committee, 2014 – Present; Chair, 2020 – Present

Anesthesia Representative, Perioperative Normothermia Taskforce, 2015 – 2017

MHMD Perioperative Services Clinical Practice Committee, 2018 – Present

Anesthesia Representative, Sarofim Transition Team, 2019 – Present

Operating Room Executive Steering Committee, 2019 – Present

Surgeon's Council, 2019 – Present

MHHS Anesthesia Performance Program Committee, 2019 – Present

COVID Leadership Team, 2020 - Present

CURRENT GRANT SUPPORT:

Randomized Double-Blinded, Controlled Trial to Compare the Effectiveness of Sugammadex vs. Placebo to Prevent Residual Neuromuscular Block in the Post-Anesthesia Care Unit as Evaluated with a Non-Invasive Respiratory Volume Monitor P.I.: George Williams, M.D.

Co P.I.: Carlos A. Artime, M.D.
Research Grant from Merck

(8/2016 - Present, IRB No. HSC-MS-16-0241)

SEGA - SEdation versus General Anesthesia for Endovascular Therapy in Acute Ischemic Stroke – a Randomized Comparative Effectiveness Trial P.I.: P. Roc Chen, M.D. Co P.I.: Carlos A. Artime, M.D. Research Grant from Stryker (5/2017 - Present, IRB No. HSC-MS-17-0436)

PAST GRANT SUPPORT:

Flexible Optical Intubation Via the Ambu Aura-I vs. Blind Intubation Via the Single Use Intubating LMA – a Prospective, Randomized Clinical Trial P.I.: Carin Hagberg, M.D. Co P.I.: Carlos A. Artime, M.D. Research Grant from Ambu A/S (12/2010 - Present, IRB No. HSC-MS-10-0604)

The Opioid-Sparing and Analgesic Effects of IV Acetaminophen in Craniotomy: A Prospective, Randomized, Placebo-Controlled, Double-Blind Study P.I.: Carlos A. Artime, M.D. Research Grant from Mallinckrodt (Cadence) Pharmaceuticals (07/2012 - Present, IRB No. HSC-MS-12-0055)

A Randomized, Placebo-Controlled Study of the Efficacy and Safety of Intracerebral Stem Cells in Subjects with Disability Following an Ischemic Stroke (PISCES III) P.I.: Sean Savitz, M.D.

Coinvestigator: Carlos A. Artime, M.D. Research Grant from ReNeuron, Ltd. (9/2018 - Present, IRB No. HSC-MS-18-0758)

NON-FUNDED RESEARCH

Comparison of Ultrasound-guided vs. Landmark Method for Central Venous Access in the Operating Room – a Randomized, Controlled Trial

P.I.: Sara Guzman, M.D. Co P.I.: Carlos A. Artime, M.D. IRB No. HSC-MS-09-0663

Medication Utilization Review of Intraoperative Albumin

P.I.: Evan Pivalizza, M.D. Co P.I.: Carlos A. Artime, M.D. IRB No. HSC-MS-14-0055

Measurement of Flexible Bronchoscopy Performance Using Simulation-Based Assessment

P.I.: Carin Hagberg, M.D. Co P.I.: Carlos A. Artime, M.D. IRB No. HSC-MS-14-0747

TotalTrack Video Laryngeal Mask Airway: A Feasibility Study

P.I.: Carin Hagberg, M.D. Co P.I.: Carlos A. Artime, M.D. IRB No. HSC-MS-14-0636

A Novel Technique: Serratus Plane Block with Liposomal Bupivacaine for Multiple Rib Fractures

P.I.: Nadia Hernandez, M.D.

Coinvestigator: Carlos A. Artime, M.D.

IRB No. HSC-MS-15-0080

A Quality Improvement Review of Clinical Standard of Care Use of Aprepitant (Emend) in the Prevention and Treatment of Postoperative Nausea and Vomiting

P.I.: Evan Pivalizza, M.D. Co P.I.: Carlos A. Artime, M.D. IRB No. HSC-MS-16-0248

The Effect of Transdermal Clonidine in the Pain Management of Morbidly Obese Patients Undergoing Robotic-Assisted Laparoscopic Surgery

P.I.: Semhar Ghebremichael, M.D. Coinvestigator: Carlos A. Artime, M.D.

IRB No.: HSC-MS-16-0369

Intraoperative Anemia Cohort Review in Trauma Therapy (CRITT)

P.I.: Christy George, M.D.

Coinvestigator: Carlos A. Artime, M.D.

IRB No.: HSC-MS-16-0458

TEG Platelet Mapping in Patients Undergoing Carotid Artery Stenting P.I.: Evan Pivalizza, M.D.

Coinvestigator: Carlos A. Artime, M.D.

IRB No. HSC-MS-16-0770

Evaluation of USMLE scores and success on the American Board of Anesthesiology (ABA) Basic Examination

P.I.: Evan Pivalizza, M.D.

Co P.I.: Carlos A. Artime, M.D.

IRB No. HSC-MS-17-0188

Continuous Interscalene Nerve Block for Shoulder Surgery: Catheter versus Liposomal Bupivacaine

P.I.: Andrzej Kwater, M.D.

Coinvestigator: Carlos A. Artime, M.D.

IRB No. HSC-MS-19-0186

PUBLICATIONS

A. Refereed Original Articles

- 1. Novak D, Quiggle F, Artime C, Beveridge M: Regulation of glutamate transport and transport proteins in a placental cell line. Am J Physiol Cell Physiol. 281(3):C1014-22, 2001.
- 2. Cattano D, Artime C, Maddukuri V, et al: Endotrol tracheal tube-assisted endotracheal intubation during videolaryngoscopy. Intern Emerg Med. 7(1):59-63, 2012.
- 3. Artime C, Hagberg C: Tracheal Extubation. Respir Care. 59(6):991-1002, 2014.
- 4. Hagberg C, **Artime C**: Extubation of the perioperative patient with a difficult airway. Colombian Journal of Anesthesiology (Revista Colombiana de Anestesiología). 42(4):295-301, 2014.
- 5. Hagberg C, Artime C: Is there a gold standard for management of the difficult airway? Anesthesiology Clinics. 33(2):233-240, 2015.
- 6. Gumbert SD, Normand KC, Artime CA, Nwokolo OO, Williams G 2nd, Guzman-Reyes S, Ghebremichael S, Sridhar S, Graham-Carlson AD, Pawelek O, Jain R, Hagberg CA, Pivalizza EG: Reliability of a faculty evaluated scoring system for anesthesiology resident applicants (Original Investigation). J Clin Anesth 2016 Jun; 31:131-6.
- 7. Artime CA, Altamirano A, Normand KC, Ferrario L, Aijazi H, Cattano D, Hagberg CA. Flexible optical intubation via the Ambu Aura-i vs blind intubation via the single-use LMA Fastrach: a prospective randomized clinical trial. J Clin Anesth. 2016 Sep; 33:41-6.
- 8. Burnett Jr. T, Artime CA, Normand KC, Cai C, Hagberg CA. Use of the Totaltrack® Video Laryngeal Mask Airway for tracheal intubation: a feasibility study. Trends in Anaesthesia and Critical Care 2017 Oct; 16:40-45.
- 9. Artime C, Aijazi H, Zhang H, Syed T, Cai C, Gumbert S, Ferrario L, Normand, K, Hagberg C, Williams G. Scheduled Intravenous Acetaminophen Improves Patient

- Satisfaction with Postcraniotomy Pain Management: A Prospective, Randomized, Placebo-Controlled, Double-Blind Study. J Neurosurg Anesthesiol. 2018 Jul; 30:231-236.
- 10. Williams GW II, **Artime CA**, Mancillas OL, Syed T, Burnett T Jr., Graham R, Tam J, Hagberg C. Subglottic perioperative airway-tube inflation via randomized evaluation with variable syringe size (SPAIR-TIRE) study. Clin Respir J 2019 Jan; 13:66–69.
- 11. Williams GW 2nd, Jones WS, Chaudhry R, Cai C, Pednekar GS, Long AC, Chouhan S, **Artime C**, Wegner RC, Grewal NK, Patterson VM, Contreras DA, Ferrario L. Intraoperative Anesthesiology Management and Patient Outcomes for Surgical Revascularization for Moyamoya Disease: A Review and Clinical Experience. J Neurol Surg A Cent Eur Neurosurg. 2019 May; 80:143-148.
- 12. Williams GW 2nd, Cai C, **Artime CA**, Teima D, Emerald A, Rajkumar KP. Evaluation of saline versus gel as contact medium for ultrasonographic image quality. J Clin Ultrasound. 2019 Jun; 47:540-545.
- 13. Hernandez N, de Haan J, Clendennin D, Meyer D, Ghebremichael S, **Artime C**, Williams GW, Eltzschig H, Sen S. Impact of serratus plane block on pain scored and incentive spirometry volumes after chest trauma. Local Reg Anesth. 2019 Aug; 12:59-66.
- 14. **Artime C**, Roy S, Hagberg C. The difficult airway. Otolaryngol Clin North Am. 2019 Dec; 52:1115-1125.
- 15. Potnuru P, **Artime CA**, Hagberg CA. The lost airway. Anesthesiology Clinics. 2020 Dec;38(4):875-888.
- 16. Markham TH, de Haan JB, Guzman-Reyes S, Zaki JF, Ghebremichael SJ, **Artime C**, Pivalizza EG. Anesthesiology Resident Performance on the US Medical Licensing Examination Predicts Success on the American Board of Anesthesiology BASIC Staged Examination: An Observational Study. J Educ Perioper Med. 2020 Jul 1;22(3):E646.

B. **Book Chapters**

- 1. **Artime C**, Hagberg C: "Awake Intubation" in *Anesthesia for Otolaryngologic Surgery*. New York (NY): Cambridge University Press; 2012.
- 2. **Artime C**, Sanchez A: "Preparation of the Patient for Awake Intubation" in *Benumof's Airway Management: Principles and Practice 3rd edition*, St. Louis (MO): Mosby, Inc., 2012.
- 3. **Artime C**: "Flexible Fiberoptic Intubation" in *The Difficult Airway, A Practical Guide*, New York (NY): Oxford University Press; 2013.
- 4. **Artime C**: "Preparation for Awake Intubation" in *The Difficult Airway, A Practical Guide*, New York (NY): Oxford University Press; 2013.
- 5. **Artime C**, Hagberg C: "Airway Management" in *Miller's Anesthesia*, 8th ed., St. Louis (MO): Saunders; 2014

- 6. Rosenblatt W, **Artime C**. Management of the difficult airway for general anesthesia. In: UpToDate, Crowley M (Ed), Waltham (MA): UpToDate.com; 2015
- 7. **Artime C**, Hagberg C. Flexible scope intubation for anesthesia. In: UpToDate, Crowley M (Ed), Waltham (MA): UpToDate.com; 2015
- 8. **Artime C**, Hagberg C. "Airway algorithms and guidelines" in *Cases in Emergency Airway Management*, New York (NY): Oxford University Press; 2015.
- 9. **Artime C**, Rojas A, Williams G. "Mathematics and Statistics" in *Basic Anesthesiology Exam Review*, New York (NY): Oxford University Press; 2015.
- 10. **Artime C**: "Pharmacology of Sedative Drugs Used in Out of Operating Room Anesthesia" in Out of Operating Room Anesthesia, Switzerland: Springer; 2017.
- 11. **Artime C**: "Preparation of the Patient for Awake Intubation" in *Benumof's Airway Management: Principles and Practice 4th ed.*, Philadelphia (PA): Elsevier; 2017.
- 12. **Artime C**, Hagberg C: "Airway Management" in *Miller's Anesthesia*, 9th ed., St. Louis (MO): Elsevier; 2019.

C. Books

- 1. Hagberg C, **Artime C**, Daily W eds: *A Practical Guide to the Difficult Airway*, Oxford University Press, New York, 2013.
- 2. Hagberg C, **Artime C**, Aziz M eds: *Hagberg and Benumof's Airway Management, 4th ed.*, Philadelphia (PA): Elsevier; 2017.

D. <u>Invited Publications</u>

- 1. **Artime C**, Candido K, Golembiewski J, Meyer T. Use of Topical Anesthetics to Support Intubation. Anesthesiology News. August 31, 2015.
- 2. Cattano D, **Artime C**: Residual neuromuscular blockade: in the beginning there was chaos, but light has not been made yet. J Clin Anesth. 2016 Sep; 33:41-6.
- 3. Doyle DJ, **Artime C**, Aziz M, Foley LJ, Law JA, Schechtman S: Airway Management Roundtable: Seven Questions for 6 Anesthesiologists. Anesthesiology News. August 28, 2017.

E. Other Professional Communications

Abstract Presentations

- 1. American Society of Anesthesiologists Annual Meeting (Chicago, Illinois, October 2011) Cattano D, Artime C, Maddukuri V, et al.: Endotrol tracheal tube-assisted endotracheal intubation during videolaryngoscopy.
- American Society of Anesthesiologists Annual Meeting (Washington DC, October 2012) Guzman-Reyes S, Marasigan B, Artime C, et al.: Comparison of Ultrasound Guided vs. Landmark Method for Central Venous Access in the Operating Room – Preliminary Results from a Randomized, Controlled Trial.
- 3. Society of Airway Management Annual Meeting (Toronto, Canada, September 2012) Maheshwari P, Artime C, Normand K, et. al.: Flexible Optical Intubation via the Ambu Aura-I versus Blind Intubation via the Single Use Intubation LMA A Prospective Randomized Clinical Trial.
- 4. American Society of Anesthesiologists Annual Meeting (San Francisco, California, October 2013) Artime C, Altamirano A, Normand KC, et. al.: Flexible Optical Intubation via the Ambu Aura-I versus Blind Intubation via the Single Use Intubating LMA A Prospective Randomized Clinical Trial.
- American Society of Anesthesiologists Annual Meeting (New Orleans, Louisiana, October 2014) Gumbert S, Normand K, Artime C, et al.: Evaluation of the Interrater Faculty Reliability Utilizing a Standardized Resident Interview Scoring System.
- 6. American Society of Anesthesiologists Annual Meeting (New Orleans, Louisiana, October 2014) Normand K, Gumbert S, Artime C, et al.: Evaluation of the Interrater Faculty Reliability Utilizing a Standardized Resident Interview Scoring System.
- 7. American Society of Anesthesiologists Annual Meeting (New Orleans, Louisiana, October 2014) Pivalizza E, Patel J, Artime C, et al.: New Residency Candidate Interview Scoring Template Reliability.
- 8. World Airway Management Meeting (Dublin, Ireland, November 2015) Artime C, Normand K, Hagberg C, et al.: Use Of The Totaltrack Video Laryngeal Mask Airway For Tracheal Intubation: A Feasibility Study.
- World Airway Management Meeting (Dublin, Ireland, November 2015) Artime C, Normand K, Hagberg C: Use Of The McGrath MAC Video Laryngoscope: To View or Not To View?.
- World Airway Management Meeting (Dublin, Ireland, November 2015) Tam J,
 Williams G, Artime C, et al.: Subglottic Perioperative Airway Tube Inflation Via Randomized Evaluation With Variable Syringe Size (SPAIR-TIRE) Study.
- 11. International Anesthesia Research Society Annual Meeting (San Francisco, California, May 2016). Williams G, Artime C, Tam J, et al: Subglottic

- Perioperative Airway Tube Inflation Via Randomized Evaluation With Variable Syringe Size (SPAIR-TIRE) Study.
- 12. Society for Neuroscience in Anesthesia and Critical Care (Chicago, Illinois, October 2016). Zhang H, Aijazi H, Artime C, et al. The Opioid-Sparing and Analgesic Effects of Acetaminophen in Craniotomy: a Prospective, Randomized. Placebo-Controlled, Double-Blind Study.
- 13. Society for Neuroscience in Anesthesia and Critical Care (Chicago, Illinois, October 2016). Ghebremichael S, Dabhade S, Artime C, et al. Use of Oral Aprepitant in the Prevention of PONV Following Pineal Cyst Resection - a Retrospective Study.
- 14. Society for Neuroscience in Anesthesia and Critical Care (Chicago, Illinois, October 2016). Ferrario L, Dabhade S, Artime C, et. al. Incidence of Postoperative Nausea and Vomiting in Patients Undergoing Pineal Cyst Resection.
- 15. American Society of Anesthesiologists Annual Meeting (Boston, Massachusetts, October 2017). Ghebremichael S. Artime C. Gumbert S et al.: Evaluation of United States Medical Licensing Exam (USMLE) Step Scores to Success on the American Board of Anesthesiology (ABA) Basic Exam.
- 16. International Anesthesia Research Society Annual Meeting (Chicago, Illinois, April 2018). Sridhar S, Royalty S, Dewar E, Artime C, et al: Perioperative Hyperglycemia in Kidney Transplant Recipients.
- 17. American Society of Anesthesiologists Annual Meeting (San Francisco, California, October 2018). de Haan J, Clendennin D, Mshvildadze M, Balli C, Artime C, et al.: Quadratus Lumborum Block for Renal Transplant Recipients
- 18. International Stroke Conference (Honolulu, Hawaii, February 2019). Chen P. Sanzgiri A, Sheth S, Savitz S, Sridhar S, Artime C, et al: Social Media Campaign with Traditional Community Consultation for Successful Exception from Informed Consent Approval - the SEGA Trial Experience.
- 19. International Stroke Conference (Honolulu, Hawaii, February 2019). Chen P. Sanzgiri A, Sheth S, Artime C, et al: Is There Clinicial Equipoise for a Randomized Trial of Anesthesia (Sedation vs. General) During Endovascular Therapy?

Letters to the Editor

1. Pivalizza EG, Gumbert SD, Sridhar S, Ghebremichael SJ, Artime C, Daily WH: All Work Hours Are Not Equal. Anesthesiology 2016 Jun;124(6):1412-3.

Invited Lectures

- Texas Society of Anesthesiologists, Interim Meeting (Houston, Texas, May 2011) "Current Perspectives on Hyperosmotic Therapy for Intracranial Hypertension"
- 2. McGovern Medical School at UTHealth, Neurosurgery Grand Rounds (Houston, Texas, December 2011) "Moderate Sedation for the Non-Anesthesiologist"
- McGovern Medical School at UTHealth, Neurosurgery Department Resident Morning Conference (Houston, Texas, July 2014) "Neurosurgical Anesthesia Considerations"

Lectures

- 1. McGovern Medical School at UTHealth, Anesthesiology Resident Lecture Series (Houston, Texas, November 2009) "Sitting Craniotomy"
- 2. McGovern Medical School at UTHealth, Anesthesiology Resident Lecture Series (Houston, Texas, May 2010) "Carotid Endarterectomy"
- 3. Texas Society of Anesthesiologists, Interim Meeting (Houston, Texas, May 2011) "Current Perspectives on Hyperosmotic Therapy for Intracranial Hypertension"
- 4. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, August 2011) "Ancillary Pharmacology"
- 5. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, August 2012) "Ancillary Pharmacology"
- McGovern Medical School at UTHealth, Case Western/ Anesthesiology Assistant Program Lecture Series (Houston, Texas, August 2012) "Advanced BIS Interpretation"
- 7. McGovern Medical School at UTHealth, Dept. of Anesthesiology Grand Rounds (Houston, Texas, February 2013) "Advanced BIS Interpretation"
- 8. McGovern Medical School at UTHealth, Anesthesiology Resident Lecture Series (Houston, Texas, May 2013) "Subarachnoid Hemorrhage"
- 9. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, July-August 2013) "Ancillary Pharmacology"
- McGovern Medical School at UTHealth, Case Western/ Anesthesiology Assistant Program Lecture Series (Houston, Texas, August 2013) "Advanced BIS Interpretation"
- 11. McGovern Medical School at UTHealth, Dept. of Anesthesiology Senior Seminar (Houston, Texas, December 2013) "Experimental Design and Statistics"
- 12. McGovern Medical School at UTHealth, Dept. of Anesthesiology Senior Seminar

- (Houston, Texas, January 2014) "Airway Management"
- 13. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, June 2014) "Ancillary Pharmacology"
- 14. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, July 2014) "Ancillary Pharmacology"
- 15. McGovern Medical School at UTHealth, Case Western/ Anesthesiology Assistant Program Lecture Series (Houston, Texas, September 2014) "Advanced BIS Interpretation"
- 16. McGovern Medical School at UTHealth, Dept. of Anesthesiology Senior Seminar (Houston, Texas, January 2015) "Experimental Design and Statistics"
- 17. McGovern Medical School at UTHealth, Dept. of Anesthesiology Senior Seminar (Houston, Texas, May 2015) "Pharmacokinetic Principles"
- 18. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, June 2015) "Neuromuscular Blockade"
- 19. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, July 2015) "Neuromuscular Blockade"
- 20. McGovern Medical School at UTHealth, Dept. of Anesthesiology Senior Seminar (Houston, Texas, September 2015) "Experimental Design and Statistics"
- 21. McGovern Medical School at UTHealth, Case Western/ Anesthesiology Assistant Program Lecture Series (Houston, Texas, September 2015) "Advanced BIS Interpretation"
- 22. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, June 2016) "Neuromuscular Blockade"
- 23. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, July 2016) "Neuromuscular Blockade"
- 24. McGovern Medical School at UTHealth, Dept. of Anesthesiology Junior Seminar (Houston, Texas, March 2017) "OR Safety and Statistics"
- 25. McGovern Medical School at UTHealth, Dept. of Anesthesiology Senior Seminar (Houston, Texas, May 2017) "Pharmacologic Principles"
- 26. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, June 2017) "Neuromuscular Blockade"
- 27. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, July 2017) "Neuromuscular Blockade"
- 28. McGovern Medical School at UTHealth, Dept. of Anesthesiology Junior Seminar

- (Houston, Texas, September 2017) "Opioids"
- 29. McGovern Medical School at UTHealth, Dept. of Anesthesiology Grand Rounds (Houston, Texas, October 2017) "Anesthetic Management of Endovascular Therapy for Ischemic Stroke"
- 30. McGovern Medical School at UTHealth, Dept. of Anesthesiology Senior Seminar (Houston, Texas, November 2017) "Experimental Design and Statistics"
- 31. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, May 2018) "Neuromuscular Blockade"
- 32. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, June 2018) "Neuromuscular Blockade"
- 33. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, July 2018) "Neuromuscular Blockade"
- 34. McGovern Medical School at UTHealth, Dept. of Anesthesiology Junior Seminar (Houston, Texas, October 2018) "Pharmacology of IV Anesthetics"
- 35. McGovern Medical School at UTHealth, Dept. of Anesthesiology Junior Seminar (Houston, Texas, December 2018) "Mathematics and Pharmacology"
- 36. McGovern Medical School at UTHealth, Dept. of Anesthesiology Senior Seminar (Houston, Texas, March 2019) "Anesthesia for Neurosurgery"
- 37. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, May 2019) "Neuromuscular Blockade"
- 38. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, June 2019) "Neuromuscular Blockade"
- 39. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas, July 2019) "Neuromuscular Blockade"
- 40. McGovern Medical School at UTHealth, Dept. of Anesthesiology Junior Seminar (Houston, Texas, October 2019) "Pharmacology of IV Anesthetics"
- 41. McGovern Medical School at UTHealth, Dept. of Anesthesiology Resident Didactics (Houston, Texas, December 2019) "Neuroanesthesia Oral Boards"
- 42. McGovern Medical School at UTHealth, Dept. of Anesthesiology Resident Didactics (Houston, Texas, December 2019) "Operating Room Management"
- 43. McGovern Medical School at UTHealth, Dept. of Anesthesiology Resident Didactics (Houston, Texas, March 2020) "Mathematics and Pharmacology"
- 44. McGovern Medical School at UTHealth, T-Mode Lecture Series (Houston, Texas,

- June 2020) "Neuromuscular Blockade"
- 45. McGovern Medical School at UTHealth, Dept. of Anesthesiology Resident Didactics (Houston, Texas, October 2020) "Pharmacology of IV Anesthetics"
- 46. McGovern Medical School at UTHealth, Dept. of Anesthesiology Clinical Research in Progress Seminar (Houston, Texas, December 2020) "What is QI and Can It Be Published?"
- 47. McGovern Medical School at UTHealth, Dept. of Anesthesiology Resident Didactics (Houston, Texas, December 2020) "Neuroanesthesia Oral Boards"
- 48. McGovern Medical School at UTHealth, Dept. of Anesthesiology Resident Didactics (Houston, Texas, December 2020) "Operating Room Management"
- 49. McGovern Medical School at UTHealth, Dept. of Anesthesiology Resident Didactics (Houston, Texas, December 2020) "Experimental Design and Statistics"

Workshops/Courses

- 1. Texas Society of Anesthesiologists Annual Meeting (San Antonio, Texas, September 2011) Airway Workshop: "Computer-based Fiberoptic Simulation"
- 2. Texas Society of Anesthesiologists Annual Meeting (Lost Pines, Texas, September 2013) Airway Workshop: "Computer-based Fiberoptic Simulation"
- 3. Texas Society of Anesthesiologists Annual Meeting (San Antonio, Texas, September 2015) Airway Workshop: "Fiberoptic Intubation"
- 4. Texas Society of Anesthesiologists Annual Meeting (San Antonio, Texas, September 2017) Airway Workshop: "Supraglottic Airway Exchange Techniques"
- 5. Franklin Dexter Operating Room Management Training Course (Houston, Texas, March 2018): Course Proctor
- 6. Society for Neuroscience in Anesthesia and Critical Care Annual Meeting (San Francisco, California, October 2018) Airway Workshop: "Supraglottic Airways"
- 7. Texas Society of Anesthesiologists Annual Meeting (San Antonio, Texas, September 2019) Airway Workshop: "Supraglottic Airway Exchange Techniques"