

RYAN W. MATIKA, MD
Assistant Professor, Anesthesiology
Department of Anesthesiology
The University of Arizona COM
rmatika@anesth.arizona.edu

EDUCATION AND MEDICAL TRAINING

8/1995 – 12/1997	Elgin Community College , Elgin, IL	AS
8/1995 – 12/1997	Illinois State University , Normal, IL Magna Cum Laude	BS
9/1998 – 9/1999	Northwestern University , Evanston, IL Biotechnology in conjunction with Kellogg School of Management	MS
9/1999	MS Thesis, Northwestern University, Chicago, IL. “Blood Screening for <i>Trypanosoma cruzi</i> in the United States.” Adviser: David Engman, MD, PhD	
8/2002 – 5/2006	University of Illinois at Chicago , Chicago, IL	MD
7/2006 – 6/2007	Evanston Northwestern Healthcare , Evanston, IL Transitional Medicine	Internship
7/2007 – 6/2010	University of Arizona , Tucson, AZ Anesthesiology	Resident
9/2012 – 8/2013	University of Arizona , Tucson, AZ Critical Care Medicine	Fellowship

BOARD CERTIFICATIONS AND LICENSES

5/2010	Arizona Medical Board
4/15/2011(Certified)	American Board of Anesthesiology
9/7/2013 (Certified)	American Board of Anesthesiology – Critical Care Medicine

EMPLOYMENT

11/1991 – 1/1994	US Army , Fort Wainwright, AK E4, Supply Specialist Awarded the Army Achievement Medal and the Army Commendation Medal
1/1998 – 7/1998	Abbott Laboratories , Abbott Park, IL Technician
9/1999 – 8/2002	BioStrategies Group , Chicago, IL Consultant

Formulated strategies to market new pharmaceuticals and medical devices
Analyzed pharmaceutical markets to predict future trends

7/2010 – Present **University of Arizona, Tucson, AZ**
Assistant Professor, Anesthesiology
7/2013 – Present Director, Anesthesiology Residency Education
9/2011 – Present Director, Scheduling Committee
4/2012 – 9/2012 Assistant Residency Program Director - Not during CCM fellowship

11/2015 – Present **University of Arizona, Tucson, AZ**
Vice Chair, Education - Anesthesiology

HONORS/AWARDS

2012 Anesthesiology Resident Teacher of the Year
2014 University of Arizona Health Network Very Important Physician
2015 Certificate of Appreciation, MED 493A Spring
 The University College of Medicine

SERVICE/OUTREACH

National Committees:

10/2015 – 10/2017 American Society of Anesthesiology Committee on Residents and
 Medical Students

Department of Anesthesiology Committees:

2011 – Present Department of Anesthesia Scheduling Committee
2012 – Present Member, Compensation Committee
2013 – Present Department of Anesthesia Budget Committee
2014 Chair, Department of Anesthesiology Academic Program Review
 Committee
2015 – Present Member, Division Heads Committee

Anesthesiology Resident Education:

1. M5 Board Review
Contributed over 1,000 questions designed for anesthesiology board review
Each question is accompanied by a detailed explanation of both right and wrong answers
2. Matika & Mistry Oral Boards Book
2012 - Study source for Oral Board preparation, published for University of Arizona
anesthesiology residents

2015 – Study source for Oral Board preparation, published for University of Arizona
anesthesiology residents. 2nd Edition.
3. Annual ABA In-Training Exam Review Lectures
15 lectures, each more than 4 hours in length preparing residents for the ABA in-training
exam. All lectures performed on weekend at private residence without support for

University. Personalized study sessions and study plans for residents performing poorly on ITE

4. Weekly Anesthesiology and Surgery Resident ICU Lectures
5. Development and assigning didactic curriculum for Anesthesiology residency program
6. Development of monthly quizzes for anesthesiology didactic rotations and monthly 1-hour quiz review presentations
7. Development of surgical resident pre and post-test for CTICU rotation

College of Medicine Committees:

2013 – Present	Graduate Education Committee
2014 – Present	Clinical Learning Environment Review Subcommittee
2014	Pulmonology Fellowship Internal Review
2014	Neurosurgical Residency Internal Review
2015	OBGYN Residency Internal Review
2016	Longitudinal Subcommittee for the UME Curriculum Revision
2016	Continuing Medical Education Committee

Hospital Committee:

2014 – Present	Code Blue Committee
2015 – Present	Compensation Committee
2015 – Present	Change Champion

JOURNAL PUBLICATIONS

1. Zhang W, Patil S, Chauhan B, Guo S, Powell DR, Le J, Klotsas A, **Matika R**, Xiao X, Franks R, Heidenreich KA, Sajan MP, Farese RV, Stolz DB, Tso P, Koo SH, Montminy M, Unterman TG: FoxO1 regulates multiple metabolic pathways in the liver: effects on gluconeogenic, glycolytic, and lipogenic gene expression. *J Biol Chem*; 2006; Apr 14;281(15):10105-17. Epub 2006 Feb 21. PMID: 16492665
2. Nielsen VG, Ley MLB, Alger PW, **Matika RW**, Steinbrenner EB. Plasmatic Hypercoagulation in Patients with Breast Cancer: Role of Hemeoxygenase-1. *Blood Coagul Fibrinolysis*; 2013; Dec 24; (8) 809-13. Doi: 10.1097/MBC.0b013e3283658b00. PMID: 24145726
3. Nielsen VG, Gharagozloo F, **Matika RW**, Kim S, Zelman EA, Steinbrenner EB. Thoracic tumor effects on plasmatic coagulation: role of hemeoxygenase-1. *Lung Cancer*; 2014; Feb 83(2):288-91. doi: 10.1016/j.lungcan.2013.11.012. Epub 2013 Dec 1. PMID: 24355260.
4. Nielsen VG, **Matika RW**, Ley MLB, Waer AL, Gharagozloo F, Kim S, Nfonsam VN, Ong ES, Jie T, Warneke JA, Steinbrenner EB. Tissue Type Plasminogen Activator Induced Fibrinolysis is Enhanced in Patients with Breast, Lung, Pancreas and Colon Cancer. *Blood Coagul Fibrinolysis*; 2014; Apr; (25)3:248-53. doi: 10.1097/MBC.0000000000000040. PMID: 24674880.

5. Nielsen VG, Lemole Jr GM, **Matika RW**, Weinand ME, Hussaini S, Baaj AA, Steinbrenner EB. Brain Tumors Enhance Plasmatic Coagulation: Role of Hemeoxygenase-1. *Anesthesia & Analgesia*; 2014 May; 118(5):919-24. doi: 10.1213/ANE.0000000000000048. PMID 24413553.
6. Nielsen VG, Nfonsam VN, **Matika RW**, Ong ES, Jie T, Warneke JA, Steinbrenner EB. Colon and Pancreas Tumors Enhance Plasma Coagulation Kinetics: Role of Hemeoxygenase-1. *Blood Coagul Fibrinolysis*; 2014 Jul;25(5)435-8. doi: 10.1097/MBC.0000000000000075. PMID 24509340.
7. **Matika RW**, Nielsen VG, Steinbrenner EB, Sussman AN, Madhrira M. Hemodialysis Patients Have Plasmatic Hypercoagulability and Decreased Fibrinolytic Vulnerability: Role of Carbon Monoxide. *ASAIO J*; 2014 Nov-Dec;60(6):716-21. doi: 10.1097/MAT.0000000000000144. PMID: 25232771.
8. Nielsen VG, Galvani CA, Boyle PK, Steinbrenner EB, **Matika R**. Bariatric patients have plasmatic hypercoagulability and systemic upregulation of heme oxygenase activity. *Blood Coagul Fibrinolysis*; 2015 Mar; 26(2):200-4. doi: 10.1097/MBC.0000000000000194. PMID 25101516.
9. Nielsen VG, Kulin W, LaWall JS, MacFarland FN, Chen A, Hadley HA, DaDeppo AJ, Steinbrenner EB, **Matika RW**. Chronic Migraineurs Form Carboxyhemefibrinogen and Iron-Bound Fibrinogen. *CNS Neurol Disord Drug Targets*, 2015;14(8):1079-85. PMID: 26295816.
10. Nielsen VG, Boyer LV, **Matika RW**, Amos Q, Redford DT. Iron and Carbon Monoxide Attenuate Crotalus Atrox Venom-enhanced Tissue-type Plasminogen Activator-initiated Fibrinolysis. *Blood Coagul Fibrinolysis* 2015;26:511-516. PMID 26575491. Doi:10.1097/MBC.0000000000000439.

GRANTS

Project: Hemolysis-Mediated Hypercoagulability in Hemodialysis Patients: Role of Hemeoxygenase-1.
 Dialysis Clinics, Inc. extramural grant, 10/22/2013 to 8/14/2014
 \$9,762.53
 Ryan W. Matika, Primary Investigator
 Vance G. Nielsen, Mentor and Co-Investigator

SCHOLARLY PRESENTATIONS

American Society of Anesthesiologists Annual Meeting

- 10/2009 Matika R, Hameroff S, Gentz B. Use of ECMO for treatment of TRALI. New Orleans, LA
- 10/2014 Matika, RW, Nielsen VG, Steinbrenner EB. Hemolysis –mediated hypercoagulability in hemodialysis patients: Role of hemeoxygenase-1. New Orleans, LA

Arizona Society of Anesthesiologists Annual Meeting

5/2014 Matika, RW. Advanced Modes of Ventilation for the Anesthesiologist. Scottsdale, AZ .

Western Anesthesiology Resident Conference

5/2008 Matika R & Gerard. Anesthetic Considerations for Carotid Artery Stenting with Flow Reversal. Seattle, WA

5/2009 Matika R, Badal J, & Boyle P. Persistent Hemidiaphragmatic Paralysis Following Interscalene Brachial Plexus Block. Palm Springs, CA.

5/2010 Matika R, Hameroff S, Gentz B. Case of Profound Non-Cardiogenic Pulmonary Edema with Profound Hypoxemia. Anaheim, CA.

5/2011 Dillon H & Matika R. Retrieval of Unwound Spirals of guidewire: Case Report. Tucson, AZ.

5/2011 Saviolakis P & Matika R. Airway Complication after Unexpected Difficult Airway. Tucson, AZ.

5/2015 DaDeppo A, Hadley H, Chen A, Matika R, Nielsen V. Chronic Migraineurs Form Carboxyhemefibrinogen and Iron-Bound Fibrinogen. Seattle, WA.

Department of Anesthesiology Grand Rounds

9/2013 Exam Review: Cardiovascular Block

10/2013 Exam Review & Oral Board Prep

10/2013 Respiratory Physiology

10/2013 Cardiac Physiology

12/2013 Quiz Review: Monitors

2/2014 Quiz Review: Peds

4/2014 Matika Milestones

7/2014 Vent and Ventilator Modes
Treatment of Pain Simplified

9/2014 Exam Review: Cardiovascular Block

10/2014 Exam Review

12/2014 Quiz Review: Cardiovascular Physiology

12/2014 Quiz Review: Pulmonary Physiology

1/2015 Exam Review: Monitors

Department of Anesthesiology Block Lectures

11/2010 Patient OR Positioning

5/2011	O ₂ and CO ₂ Transport
8/2011	Hemostasis and Coagulation
9/2011	Hemostasis and Coagulation
11/2011	Anesthesia for Thoracic Surgery
2/2012	Renal Physiology/Pathophysiology
4/2012	Problem Based Learning Instruction (PBLI)
6/2012	Oral Board Review
1/2013	O ₂ and CO ₂ Transport
2/2013-4/13	PBLI
6/2013	Board Review
9/2013-12/13	PBLI
1/2014	PBLI Positioning Injuries PBLI
11/2014-1/15	PBLI
2/2015	ITE Prep
3/2015	Refractory Inpatient Pain

Department of Anesthesiology New Resident Lectures

7/2012	Inhaled Anesthetics
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Other Scholarly Invited Lectures

1/2014	Airway management in the ICU. Southern Arizona CCRN conference. Tucson, AZ.
3/2014	Management of Pain for the Critically Ill. Multidisciplinary Critical Care Conference. Tucson AZ.
4/2014	Treatment of Pain Simplified. Internal Medicine Grand Rounds, Tucson AZ.

Endocrine Society Annual Meeting

6/2004	<i>Award Winning Presentation:</i> FoxO transcription factors regulate multiple metabolic pathways in the liver. New Orleans, LA.
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