

Curriculum Vitae and Bibliography

Steven R Clendenen, MD

Personal Information

Place of Birth: Fort Wayne, IN
Citizenship: United States of America
Work Address: Mayo Clinic Jacksonville
4500 San Pablo Rd S
Jacksonville, FL 32224-1865
904-956-3327
Email Address: Clendenen.Steven@mayo.edu

Present Academic Rank and Position

Chair - Division of Regional Anesthesia, Department of Anesthesiology, Mayo Clinic, Jacksonville, Florida 2006 - Present
Consultant - Department of Anesthesiology and Perioperative Medicine, Mayo Clinic, Jacksonville, Florida 07/2008 - Present
Associate Professor of Anesthesiology - Mayo Clinic College of Medicine and Science 10/2014 - Present

Education

Parkview School of Nursing, Ft. Wayne, Indiana - RN 1978 - 1980
Mayo Clinic School of Health-Related Sciences, Mayo Clinic College of Medicine, CRNA 1981 - 1983
Sangamon State University, Springfield, Illinois - BS 1984 - 1986
Wright State University School of Medicine, Dayton, Ohio - MD 1990 - 1994
Kettering Medical Center, Wright State University School of Medicine - Internship 1994 - 1995
Mayo Graduate School of Medicine, Mayo Clinic College of Medicine - Resident 1995 - 1997
Mayo Graduate School of Medicine, Mayo Clinic College of Medicine - Chief Resident, Department of Anesthesiology 1997 - 1998

Certification

Board Certifications

American Board of Anesthesiology

Anesthesiology 1999 - Present

American Board of Pain Medicine

Pain Medicine 1999 - Present

American Heart Association (AHA)

Advanced Cardiovascular Life Support (ACLS) 1999 - Present

Basic Life Support (BLS) 1999 - Present

Licensure

Florida	ME70586 (Medical)	- 2013
Ohio	Inactive (Medical)	
Colorado	Inactive (Medical)	

Honors and Awards

Marie Colter Award, Outstanding Student Nurse - Parkview School of Nursing, Fort Wayne, IN	01/1980
Dean's Award - Sangamon State University, Springfield, IL	01/1986
Howard Magner Award, Academic Achievement - Medical School, Wright State University	01/1992
Janet Thompson Award, Outstanding Student in Obstetrics - Medical School, Wright State University	01/1993
Alpha Omega Alpha Honor Society - Medical School, Wright State University	01/1994
Richard A. Theye Award, Outstanding Achievement in Medical Literature - Department of Anesthesiology, Mayo Graduate School of Medicine, Mayo Clinic College of Medicine	01/1997
Teacher of the Year - Anesthesiology Residency Program, Department of Anesthesiology, Mayo Clinic, Jacksonville, Florida	01/2007 - 01/2008
Teacher of the Year - Anesthesiology Residency Program, Department of Anesthesiology, Mayo Clinic, Jacksonville, Florida	07/2009 - 06/2010

Military Service

Captain - United States Air Force Reserve	01/1990 - 01/1992
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Previous Professional Positions and Major Appointments

Registered Nurse - ICU, Parkview Memorial Hospital, Fort Wayne, Indiana	1980 - 1981
Staff Anesthetist - Wright Anesthesia Services, Miami Valley Hospital, Dayton, Ohio	1983 - 1985
Staff Anesthetist - Pediatric Anesthesia Associates, Children's Medical Center, Dayton, Ohio	1985 - 1990
Staff Anesthetist - Anesthesia Associates of Dayton, Miami Valley Hospital, Dayton, Ohio	1990 - 1995
Anesthesiologist - Anesthesia Associates of Colorado Springs, Colorado Memorial Hospital, Colorado Springs, Colorado	07/1998 - 10/2001
Anesthesiologist - Southern Colorado Anesthesia Associates, Inc., Colorado Springs, Colorado	10/2001 - 06/2005
Director of Anesthesia Research - Medical Research Center of Colorado, Colorado Springs, Colorado	2003 - 2005
Senior Associate Consultant - Department of Anesthesiology and Perioperative Medicine, Mayo Clinic, Jacksonville, Florida	07/2005 - 07/2008
Vice-Chair Practice - Department of Anesthesiology and Perioperative Medicine, Mayo Clinic, Jacksonville, Florida	01/2007 - 2011
Instructor in Anesthesiology - Mayo Clinic College of Medicine and Science	02/2007 - 07/2008
Assistant Professor in Anesthesiology - Mayo Clinic College of Medicine and Science	08/2008 - 09/2014

Professional and Community Memberships, Societies, and Services

Professional Memberships and Services

American Society of Anesthesiologists Member	10/1995 - Present
Educational Track Subcommittee on Regional Anesthesia and Acute Pain Member	10/2010
American Society of Pain Medicine Member	01/2004 - Present
American Society of Regional Anesthesia Member	01/2004 - Present
Communications Committee Member	01/2010 - Present
Colorado Society of Anesthesiologists Member	01/1998 - 12/2005
Florida Society of Anesthesiologists Member	01/2005 - Present
International Anesthesia Research Society Member	01/2004 - Present
Society for Ambulatory Anesthesia Member	01/1998 - Present
Society of Cardiovascular Anesthesiologists Member	01/1997 - Present

Journal Responsibilities

Journal Editorial Responsibilities

Anesthesia & Analgesia Reviewing Editor	2013 - 2017
Minerva Anesthesiologica Reviewing Editor	2014 - 10/2017

Journal Other Responsibilities

Ad Hoc Reviewer Journal Peer Reviewer	01/2008 - Present
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Educational Activities

Curriculum and Course Development

Business Administration Program American Society of Anesthesiologists The Woodlands, Texas	03/2005 - 01/2006
Guidelines for the Management of Severe Local Anesthetic Toxicity Developed and implemented guidelines for Quality Assurance Department of Anesthesiology, Mayo Clinic	01/2008
Physicians Communication Course - Module II Mayo Clinic Jacksonville, Florida	09/2010

Teaching Intramural

Regional Catheter Service Anesthesia Resident Core Curriculum Conference	07/25/2005
Obstructive Sleep Apnea Anesthesia Resident Subspecialty Conference	08/03/2005
Regional Anesthesia & Outpatient Surgery Anesthesia Resident Core Curriculum Conference	10/17/2005
Practice Management Anesthesia Resident Core Curriculum Conference	10/17/2005
Regional Anesthesia for Orthopedics Nurses/Faculty St. Luke's Hospital United States of America	11/19/2005
Regional Anesthesia for Orthopedics Nurses/Faculty St. Luke's Hospital United States of America	12/05/2005
Neurovascular Surgery: Cerebral Aneurysm Wednesday Morning Subspecialty Anesthesia Resident Core Curriculum Series	12/12/2005
Regional Anesthesia Anesthesia Resident Subspecialty Conference	01/18/2006

Perioperative Medicine Nurse Education United States of America	02/2006
Ultrasound and Regional Anesthesia MCJ Anesthesiology Grand Rounds United States of America	07/24/2006
Regional Catheter Service Anesthesia Resident Core Curriculum Conference United States of America	07/26/2006
Regional Anesthesia Anesthesia Resident Subspecialty Conference United States of America	08/02/2006
Local Anesthetics Anesthesia Resident Core Curriculum Conference United States of America	10/09/2006
Lower Extremity Blocks Anesthesia Resident Core Curriculum Conference United States of America	10/30/2006
Perioperative Medicine Nurse Education United States of America	02/2007
Regional Anesthesia Anesthesia Resident Subspecialty Conference United States of America	03/21/2007
Mock Oral Exam Presentation Anesthesia Resident Curriculum United States of America	06/18/2007
Mock Oral Exam Gutierrez, Mario - Mayo Clinic Anesthesia Resident United States of America	06/18/2007
Mock Oral Exam Hogan, William - Mayo Clinic Anesthesia Resident United States of America	06/18/2007
Mock Oral Exam Emerson, Brian - Mayo Clinic Anesthesia Resident United States of America	06/20/2007
Mock Oral Exam Presentation Anesthesia Resident Curriculum United States of America	06/20/2007
Mock Oral Exam Presentation Anesthesia Resident Curriculum United States of America	12/03/2007
Regional Anesthesia Anesthesia Resident Subspecialty Conference United States of America	12/12/2007
Ultrasound-Guided Peripheral Nerve Blocks Anesthesia Resident Core Curriculum Conference United States of America	01/14/2008

Ultrasound-Guided Peripheral Nerve Catheters Anesthesia Journal Club (Host) United States of America	02/18/2008
Regional Computerized Procedures Anesthesiology Grand Rounds Jacksonville, Florida	02/25/2008
Regional Computerized Procedures Anesthesia Resident Core Curriculum Conference United States of America	02/25/2008
Lipid Treatment for Local Anesthetic Toxicity Inservice Outpatient Service Center (OSC) staff United States of America	03/24/2008
Lower Extremity Nerve Blocks Anesthesia Resident Core Curriculum Conference United States of America	03/31/2008
Mock Oral Exam Presentation Anesthesia Resident Curriculum United States of America	06/16/2008
Mock oral board examination with feedback and evaluation on 6/16/2008. Stollendorf, Sarah - Mayo Clinic Anesthesia Resident United States of America	06/28/2008
Regional Anesthesia I Anesthesia Resident Subspecialty Conference United States of America	09/24/2008
Regional Anesthesia Anesthesia Resident Core Curriculum Conference Jacksonville, Florida	09/24/2008
Regional Anesthesia Regional Anesthesia Journal Club (Host) United States of America	09/24/2008
Faculty advisor 6/2009 - 7/2010. Advised on poster and lecture presentation at ASRA national meeting in San Antonio, November 2009. Bacani, Christopher - Senior Resident, Mayo Clinic, Department of Anesthesiology United States of America	2009 - 2010
Regional Anesthesia II Anesthesia Resident Subspecialty Conference United States of America	02/25/2009
Update on Regional Anesthesia Department/Division Chair Monthly Conference United States of America	07/21/2009
Use of Ultrasound for Regional Blocks Anesthesia Resident Core Curriculum Conference United States of America	08/17/2009
Lower Extremity Nerve Blocks Anesthesia Resident Core Curriculum Conference United States of America	08/17/2009
4-D Ultrasound in Regional Anesthesia Anesthesiology Grand Rounds United States of America	08/24/2009

Regional Anesthesia Anesthesia Resident Subspecialty Conference United States of America	09/02/2009
Regional Anesthesia Coding Update Patient Financial Services United States of America	12/15/2009
One-on-one instructions on Regional Anesthesia. Observership from May 24 - June 4, 2010. Practicing Regional Anesthesiologist in Brazil Farath-Gonzalez, Rodrigo - Visiting Physician United States of America	2010
Subdural Catheter Placement during Regional Anesthesia Anesthesia Resident Subspecialty Conference United States of America	01/13/2010
Propofol Shortage and Anesthetic Alternatives Anesthesiology Grand Rounds United States of America	02/08/2010
Anatomy of an Ultrasound Machine CA1 Anesthesia Resident Orientation - Introductory Course to Anesthesia Conference United States of America	07/21/2010
Regional Anesthesia III Anesthesia Resident Subspecialty Conference United States of America	10/22/2010
Update on Ultrasound-Guided Regional Anesthesia Regional Anesthesia Fellow Core Conference United States of America	10/28/2010
Spinal Imaging Regional Anesthesia Fellow Core Conference United States of America	01/11/2011
Mock oral board examination with feedback and evaluation Vickers, Jessica - Mayo Clinic Anesthesia Resident United States of America	01/24/2011
Ultrasound Mayo Clinic Anesthesiology Grand Rounds United States of America	08/08/2011
Ultrasound vs. Traditional Techniques for Acute Pain Mgmt - A Review of Outcomes Regional Anesthesia Clinical Conference(Host) United States of America	09/21/2011
Value of Single Injection or Continuous Sciatic Nerve Block in Addition to a Continuous Femoral Nerve Block in Patients Undergoing Total Knee Arthroplasty Regional Anesthesia Clinical Conference(Host) United States of America	10/19/2011
Anterior Approach to the Lumbar Plexus for Hip Surgery Regional Anesthesia Clinical Conference(Host) United States of America	04/18/2012
Ultrasound Imaging of the Spine Regional Anesthesia Fellow Conference United States of America	08/21/2012

Lipid Rescue - Management of Intravascular Injection of Local Anesthesia Regional Anesthesia Fellow Conference United States of America	08/21/2012
Local Anesthetics Anesthesia Resident Core Curriculum Conference United States of America	10/29/2012
Lower Extremity Blocks Anesthesia Resident Core Curriculum Conference United States of America	11/12/2012
Pharmacology - Methemoglobinemia Anesthesia CA1 Core Curriculum Lecture United States of America	10/28/2013
Anesthesia billing and job evaluation Anesthesia CA2-3 Core Curriculum Lecture United States of America	12/04/2013
Lipid Rescue: Are you Prepared? Perianesthesia Core Day Jacksonville, Florida	03/08/2014
Pharmacology - Side Effects and Toxicity Anesthesia CA1 Core Curriculum Lecture Florida	03/24/2014
AKT missed topics: • Symptoms of spinal stenosis • Adjuvant treatment in bone metastases pain • Allodynia • Anesthesia dolorosa • Hypesthesia • Parasthesia Anesthesia CA2-3 Core Curriculum Lecture United States of America	05/07/2014
Intro to Private Practice and Job Evaluation Anesthesia CA2-3 Core Curriculum Lecture Jacksonville, Florida	10/07/2014
US Guided Lower Extremity Regional Anesthesia Workshop My Must-do Anesthesiology Workshops Jacksonville, Florida	10/24/2014
US Guided Upper Extremity Regional Anesthesia Workshop My Must-do Anesthesiology Workshops Jacksonville, Florida	10/24/2014
b. Pharmacology i. Anticoagulants, anti-thrombotic, and anti-platelet drugs 1. Mechanism of Action 2. Comparison of Drugs 3. Drug Interaction 4. Monitoring of Effects 5. Side Effects and Toxicity Anesthesia CA1 Core Curriculum Lecture Jacksonville, Florida	01/12/2015
18. Pharmacology a. General Concepts i. Pharmacokinetics and Pharmacodynamics, Protein Binding; Partition Coefficients; PKA; Ionization, Tissue Uptake: Compartmentalization and Exponential Models 1. Pharmacokinetics of Neuraxial Drug Administration: Epidural and Subarachnoid b. Anesthetics - Local i. Uptake, Mechanism of Action ii. Biotransformation and Excretion iii. Comparison of Drugs and Chemical Groups iv. Prolongation of Action v. Side Effects and Toxicity 1. CNS: Seizures, Cauda Equ Anesthesia CA1 Core Curriculum Lecture Jacksonville, Florida	05/11/2015
Anesthesia jobs and billing - Intro into private practice Anesthesia CA2-3 Core Curriculum Lecture Jacksonville, Florida	09/08/2015

Regional Lecture 7* Anesthesia CA2-3 Core Curriculum Lecture Jacksonville, Florida	10/19/2016
Acute Pain Management: The Narcotic Crisis in America Mayo Clinic Department of Anesthesiology and Perioperative Medicine Grand Rounds United States of America	11/14/2016
Local Anesthetics Anesthesia CA1 Core Curriculum Lecture Jacksonville, Florida	12/05/2016
PONV Anesthesia CA1 Core Curriculum Lecture Jacksonville, Florida	02/20/2017
Update Regional Anesthesia for Orthopedic Surgery Mayo Clinic Department of Orthopedics, Grand Rounds United States of America	10/09/2017

Mentorship

Emerson, Brian (Anesthesia Resident) Description: Mentored in abstracts and presentations. Collaborated on an abstracts for Reg Anesth Pain Med (2007) and Anesthesiology (2008). Current Status: Anesthesiologist Outcome:	06/2004 - 06/2007
York, Jason (Anesthesia Resident) Description: Mentored in abstract, publication of original research and presentations. Wrote a peer-reviewed article for Acta Anaesthesiol Scand (2008). Presented and published an abstract in Reg Anesth Pain Med (2007) Current Status: Anesthesiologist Outcome:	06/2005 - 06/2008
Ladlie, Beth (Anesthesia Resident) Description: Primary Anesthesia Faculty Advisor to Resident (2007-2008). Served as senior advisor for research protocol (IRB #07-002759), as well as for poster presentation at World Congress of Anaesthesiologists (South Africa, 3/2008). Advised on two abstracts presented and published and a manuscript currently "in press" in Anesthesia & Analgesia. Faculty advisor for Dr. Ladlie during the Gulf Atlantic Anesthesia Residents Research Conference (GAARRC) in New Orleans, April 2007. Current Status: Senior Associate Consultant - Mayo Clinic, Jacksonville, FL (06/2009 - present) Outcome:	06/2006 - 06/2008
Rodriguez, Gabriel (Anesthesia Resident) Description: Anesthesia Faculty Advisor to Resident (2007-2009). Served as senior advisor for research protocols (IRB #07-002759, 06-006358, and 07-004716), as well as poster presentation at a national meeting (IARS), resulting in an abstract published. Current Status: Pain Medicine Fellowship, Mayo Clinic Florida, 07/2009 - 06/2010 Outcome:	06/2006 - 06/2008

- Riutort, Kevin (Anesthesia Resident) 06/2006 - 06/2009
Description: Mentored in abstract, publication of original research and presentations. Published peer-reviewed articles in J Anesth (2009), Anesth Analg (2009), and J Rom Anest Terap Intl (2011). Collaborated on abstracts for Anesthesiology (2007) and Reg Anesth Pain Med (2007, 2008)
Current Status: Anesthesiologist
Outcome:
- Clendenen, Nathan (Research Trainee) 05/2007 - 08/2007
Description: Assisted with research studies, posters, and presentations. Published article: "Applications of Real-Time 3D Ultrasound." Royal College of Surgeons Ireland Surgical Society. The Scalpel [newsletter], Vol 3, Issue 1, Feb 2009, pp 1-3.
Current Status: Anesthesiology Residency, Yale University
Outcome:
- Bietenholz, Kathryn (Anesthesiology Resident) 06/2007 - 06/2010
Description: Mentored in abstracts. Collaborated on an abstract for Anesthesiology (2007).
Current Status: Senior Associate Consultant - Mayo Clinic, Jacksonville, FL (07/2010 - present)
Outcome:
- Freidenstein, James (Anesthesia Resident) 06/2007 - 06/2010
Description: Anesthesia Resident Advisor (2007-2010). Mock oral board examination with feedback and evaluation on 11/9/2009 and 6/14/2010. Mentored in abstract, publication of original research and presentations. Published a peer-reviewed article in Anesthesiol Res Pract (2010).
Current Status:
Outcome:
- Ladlie, Beth (Regional Anesthesia Fellow) 06/2008 - 07/2009
Description: Dr. Beth Ladlie presented abstracts and workshops at various regional anesthetic meetings and she prepared manuscripts for acceptance in major anesthesiology journals. She progressed to independent practice of advanced regional anesthesia including all continuous catheter applications.
Current Status: Senior Associate Consultant - Mayo Clinic, Jacksonville, FL (07/2009 - present)
Outcome:
- Soberon, Jose (Regional Anesthesia Fellow) 06/2009 - 07/2010
Description: Dr. Soberon presented abstracts and workshops at various regional anesthetic meetings. He progressed to independent practice of advanced regional anesthesia including all continuous catheter applications. Mentored in presentations and research protocols.
Current Status: Faculty Member, Oschner Clinic, New Orleans, LA
Outcome:
- Rospigliosi, Kelly (Regional Anesthesia Fellow) 07/2010 - 07/2011
Description:
Current Status: Regional Anesthesiologist
Outcome:
- Day, Jonathan (Regional Anesthesia Fellow) 07/2011 - 07/2012
Description:
Current Status: Regional Anesthesiologist
Outcome:

Porter, Steven (Regional Anesthesia Fellow)	07/2011 - 07/2012
Description:	
Current Status: Regional Anesthesiologist	
Outcome: Assistant Professor of Anesthesiology, Mayo Clinic	
Candler, Shawn (Research Fellow)	01/2012 - 01/2013
Description: Mentored in publications. Collaborated on a peer-reviewed article in Pain Physicians (2013).	
Current Status: Research Fellow, Department of Pain Medicine, Mayo Clinic, Jacksonville, FL	
Outcome:	
Golbaba, Babak (Regional Anesthesia Fellow)	07/2012 - 07/2013
Description:	
Current Status: Regional Anesthesiologist	
Outcome:	
Isenhower, Matthew (Regional Anesthesia Fellow)	07/2012 - 07/2013
Description:	
Current Status: Regional Anesthesiologist	
Outcome:	
Ardon, Alberto (Regional Anesthesia Fellow)	07/2013 - 07/2014
Description:	
Current Status: Regional Anesthesiologist	
Outcome:	
Bhuria, Upasna (Regional Anesthesia Fellow)	07/2013 - 07/2014
Description:	
Current Status: Regional Anesthesiologist	
Outcome:	

Academic Career Development

Business Administration Program American Society of Anesthesiologists The Woodlands, Texas	03/2005 - 01/2006
Presentation Skills for Physicians Mayo Clinic Workforce Education & Development Jacksonville, Florida	05/2010

Institutional/Departmental Administrative Responsibilities, Committee Memberships and Other Activities

Mayo Clinic

Department of Education Administration
 Mayo Clinic College of Medicine
 Mayo Clinic School of Health-Related Sciences
 Subcommittee Member 2011 - Present

Mayo Clinic in Florida

Department of Anesthesiology
 Administrative Committee
 Member 01/2007 - Present

Anesthesia Practice Management
 Member 01/2007 - Present
 Chair 01/2007 - Present

Anesthesia Research Committee
 Member 01/2005 - Present

Finance Committee
 Member 01/2005 - 05/2007
 Member 01/2010 - Present

Performance Improvement Committee
 Member 01/2007 - Present

Presentations Extramural

National or International

Invited

Infections with Anaesthetic Implications Part 1 (Quiz): Ludwig's angina, epiglottitis, quinsy, croup, etc. 09/17/2005
 Panel Speaker for New Zealand Anaesthesia Education Committee in association with Mayo Clinic College of Medicine.
 Infection and the Anaesthetists/Anesthesiologist Symposium
 Nelson, New Zealand

Infections with Anaesthetic Implications Part 2: PBLD necrotizing fasciitis, meningococcaemia, influenza, resistant organisms, etc. 09/17/2005
 Panel Speaker for New Zealand Anaesthesia Education Committee in association with Mayo Clinic College of Medicine.
 Infection and the Anaesthetists/Anesthesiologist Symposium
 Nelson, New Zealand

Paravertebral Blocks 04/29/2006 -
 5th Annual Comprehensive Regional Anesthesia Workshop 04/30/2006
 Bethesda, Maryland

Regional Anesthesia and Home Analgesia 01/22/2007
 Anesthesia and Perioperative Medicine Conference Sponsored by Academic Hospital Affiliates / University of Alabama
 Vail, Colorado

Regional Anesthesia 04/2007
 6th Annual Comprehensive Regional Anesthesia Workshop
 Bethesda, Maryland

Femoral/Lateral Femoral/Obturator/Paravertebral 5th Annual Fireworks in Anatomy of Regional Blockade Louisville, Kentucky	05/2007
What's different about Ultra-Sound for Regional Anesthesia 5th Annual Fireworks in Anatomy of Regional Blockade Louisville, Kentucky	05/2007
Paravertebral and Thoracic Nerve Blocks 1st Annual NYSORA Europe Symposium London, United Kingdom	11/18/2007
Upper Extremity Regional Blocks 6th Annual Regional Anesthesia & Acute Pain Management Course New York, New York	12/16/2007
Neuromuscular Session Anesthesia and Perioperative Medicine Conference Sponsored by Academic Hospital Affiliates / Univ of AL Vail, Colorado	01/21/2008
Cutting Edge Ultrasound 3-Dimensional and Beyond Anesthesia and Perioperative Medicine Conference Sponsored by Academic Hospital Affiliates / Univ of AL Vail, Colorado	01/23/2008
Ultrasound Anatomy of the Neck and Upper Extremity and Needle Approaches for Successful Blockade. Part II: Below the Clavicle The USRA Skills Course. Sponsored by Institute for Advanced Medical Education Atlanta, Georgia	10/03/2008
Ultrasound Anatomy of the Neck and Upper Extremity and Needle Approaches for Successful Blockade. Part I. The USRA Skills Course. Sponsored by Institute for Advanced Medical Education Atlanta, Georgia	10/04/2008
Ultrasound: Future Applications, Controversies, and Wrap Up The USRA Skills Course. Sponsored by Institute for Advanced Medical Education Atlanta, Georgia	10/04/2008
Will Ultrasound Really Improve Regional Anesthesia? Myths, Truths, and Unknowns. Co-Moderator: Ultrasound Will Not Significantly Impact Safety American Society of Anesthesiologists Annual Meeting Orlando, Florida	10/18/2008
Ultrasound Anatomy of the Neck and Upper Extremity and Needle Approaches for Successful Blockade. Part I. The USRA Skills Course. Sponsored by Institute for Advanced Medical Education Chicago, Illinois	12/05/2008
Ultrasound Anatomy of the Neck and Upper Extremity and Needle Approaches for Successful Blockade. Part II: Below the Clavicle The USRA Skills Course. Sponsored by Institute for Advanced Medical Education Chicago, Illinois	12/05/2008
Ultrasound: Future Applications, Controversies, and Wrap Up The USRA Skills Course. Sponsored by Institute for Advanced Medical Education Chicago, Illinois	12/06/2008
Pros & Cons of Ultrasound-Guided Nerve Blocks Mayo Clinic Symposium on Anesthesia & Perioperative Medicine Phoenix, Arizona	02/19/2009

Regional Anesthesia Workshop Mayo Clinic Symposium on Anesthesia & Perioperative Medicine Phoenix, Arizona	02/19/2009
Regional Anesthesia Cadaver Workshop - Faculty Member 8th Annual Comprehensive Regional Anesthesia Workshop Bethesda, Maryland	04/26/2009
Workshop II: Ultrasound in Anesthesia Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Scottsdale, Arizona	05/14/2009
Workshop VII: Ultrasound in Anesthesia Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Scottsdale, Arizona	05/15/2009
Regional Blocks for Postoperative Analgesia in Ambulatory Surgery Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Scottsdale, Arizona	05/17/2009
Workshop I: Ultrasound-Guided Regional Blocks 2nd International Congress of the Society of Anesthesiology Reanimatology of the Republic of Moldova Chisinau, Moldova	08/29/2009
Ultrasound-Guided Regional Anesthesia Lecture 2nd International Congress of the Society of Anesthesiology Reanimatology of the Republic of Moldova Chisinau, Moldova	08/30/2009
Regional Anesthesia Block Workshop [instructor] 6th Annual International Symposium of Ultrasound and Regional Anaesthesia (ISURA) Schwetzingen, Germany	09/13/2009
2-D, 3-D, or 4-Dimensional Ultrasound Lecture 6th Annual International Symposium of Ultrasound and Regional Anaesthesia (ISURA) Schwetzingen, Germany	09/14/2009
Cadaver Workshop - Part I [instructor] 6th Annual International Symposium of Ultrasound and Regional Anaesthesia (ISURA) Innsbruck, Austria	09/15/2009
Cadaver Workshop - Part II [instructor] 6th Annual International Symposium of Ultrasound and Regional Anaesthesia (ISURA) Innsbruck, Austria	09/16/2009
Regional Anesthesia: Nerve Injury and Local Anesthesia Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	11/06/2009
Regional Anesthesia: Peripheral Nerve Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	11/06/2009

Regional Anesthesia: Nerve Injury and Local Anesthesia Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Miami, Florida	11/14/2009
Regional Anesthesia: Peripheral Nerve Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Miami, Florida	11/14/2009
Moderator for Morning Sessions 1/19/2010 and 1/21/2010 Anesthesia and Perioperative Medicine Conference Sponsored by Academic Hospital Affiliates / University of Alabama Vail, Colorado	01/19/2010
Regional Anesthesia Update Anesthesia and Perioperative Medicine Conference Sponsored by Academic Hospital Affiliates / University of Alabama Vail, Colorado	01/20/2010
Regional Anesthesia Workshop Mayo Clinic Symposium on Anesthesia & Perioperative Medicine Phoenix, Arizona	02/18/2010
New Techniques in Regional Anesthesia Mayo Clinic Symposium on Anesthesia & Perioperative Medicine Phoenix, Arizona	02/20/2010
Advanced Ultrasound-Guided Nerve Block (workshop) International Anesthesia Research Society (IARS) Annual Meeting Honolulu, Hawaii	03/20/2010
Psoas Compartment Block: Nerve Stimulator and Ultrasound Techniques International Anesthesia Research Society (IARS) Annual Meeting Honolulu, Hawaii	03/21/2010
Ultrasound-Guided Thoracic Paravertebral Block International Anesthesia Research Society (IARS) Annual Meeting Honolulu, Hawaii	03/22/2010
Regional Anesthesia: Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Chicago, Illinois	04/11/2010
Regional Anesthesia: Nerve Injury and Local Anesthetic Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Chicago, Illinois	04/11/2010
Advanced Regional Catheters with Ultrasound (Workshop I) Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Baltimore, Maryland	04/29/2010
Advanced Regional Catheters with Ultrasound (Workshop II) Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Baltimore, Maryland	04/30/2010
Regional Anesthesia Cadaver Workshop - Faculty Member 9th Annual Comprehensive Regional Anesthesia Workshop Bethesda, Maryland	05/01/2010 - 05/02/2010

Regional Anesthesia: Infraclavicular, Axillary, and Blocks at the Elbow The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	05/14/2010
Regional Anesthesia: Nerve Injury and Local Anesthesia Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	05/14/2010
Regional Anesthesia: Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Miami, Florida	05/22/2010
Regional Anesthesia: Nerve Injury and Local Anesthesia Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Miami, Florida	05/22/2010
4-Dimensional Ultrasound-Guided Femoral Nerve Block (UIA contest) Ultrasound and Regional Anesthesia 7th Annual International Symposium. Sponsored by ISURA. Toronto, Ontario, Canada	06/04/2010 - 06/06/2010
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	10/23/2010
Sciatic Nerve Blocks: Subgluteal & Popliteal The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	10/23/2010
Ambulatory Catheters: Who, What, When, Why, and How? The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	10/24/2010
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Chicago, Illinois	11/05/2010
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Chicago, Illinois	11/05/2010
Ambulatory Catheters: Who, What, When, Why, and How? The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Chicago, Illinois	11/06/2010
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	11/12/2010
Sciatic Nerve Blocks: Subgluteal & Popliteal The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	11/12/2010

Ambulatory Catheters: Who, What, When, Why, and How? The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	11/13/2010
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Vail, Colorado	02/10/2011
Ambulatory Catheters: Who, What, When, Why, and How? The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Vail, Colorado	02/12/2011
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	02/25/2011
Ambulatory Catheters: Who, What, When, Why, and How? The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	02/26/2011
Continuous Perineural Catheters: The Basics? The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	02/26/2011
Ambulatory Catheters: Who, What, When, Why, and How? The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Pensacola, Florida	03/26/2011
Continuous Perineural Catheters: The Basics? The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Pensacola, Florida	03/27/2011
Regional Anesthesia Cadaver Workshop - Faculty Member 9th Annual Comprehensive Regional Anesthesia Workshop Bethesda, Maryland	04/30/2011 - 05/01/2011
Advanced Regional Catheters with Ultrasound (Workshop I) Society for Ambulatory Anesthesia (SAMBA) Annual Meeting San Antonio, Texas	05/05/2011
Advanced Regional Catheters with Ultrasound (Workshop II) Society for Ambulatory Anesthesia (SAMBA) Annual Meeting San Antonio, Texas	05/06/2011
Advanced Regional Catheters with Ultrasound (Workshop III) Society for Ambulatory Anesthesia (SAMBA) Annual Meeting San Antonio, Texas	05/06/2011
Advanced Regional Catheters with Ultrasound (Resident Hands-On Workshop) Society for Ambulatory Anesthesia (SAMBA) Annual Meeting San Antonio, Texas	05/07/2011
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Vail, Colorado	02/09/2012

Nerve Injury and LA Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Vail, Colorado	02/09/2012
Ultrasound Guided Vascular Access and Management of Ambulatory Nerve Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Vail, Colorado	02/11/2012
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Dallas, Texas	03/03/2012
Nerve Injury and LA Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Dallas, Texas	03/03/2012
Ultrasound Guided Vascular Access and Management of Ambulatory Nerve Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Dallas, Texas	03/04/2012
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) New York, New York	04/14/2012
Nerve Injury and LA Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) New York, New York	04/14/2012
Ultrasound Guided Vascular Access and Management of Ambulatory Nerve Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) New York, New York	04/15/2012
Advanced Regional Ultrasound Techniques (Workshop) Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Miami, Florida	05/04/2012
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	05/05/2012
Nerve Injury and LA Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	05/05/2012
Ultrasound Guided Vascular Access and Management of Ambulatory Nerve Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	05/06/2012

Ambulatory Peripheral Nerve Catheters Society for Ambulatory Anesthesia (SAMBA)- Webinar Florida	07/11/2012
Nerve Injury and LA Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Miami, Florida	11/03/2012
TAP The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Miami, Florida	11/03/2012
Ambulatory Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Miami, Florida	11/04/2012
Interscalene & Supraclavicular Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Miami, Florida	11/04/2012
Ambulatory Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	11/09/2012
Nerve Injury and LA Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	11/09/2012
Infraclavicular, Axillary & Blocks at the Elbow The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	11/10/2012
6th International Conference of the Royal Medical Services Amman, Jordan	11/19/2012 - 11/22/2012
Ambulatory Catheters The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Chicago, Illinois	12/01/2012
Nerve Injury and LA Toxicity The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Chicago, Illinois	12/01/2012
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Chicago, Illinois	12/02/2012
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Vail, Colorado	02/08/2013

Ultrasound Guided Vascular Access The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Vail, Colorado	02/08/2013
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Vail, Colorado	02/09/2013
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	03/08/2013
Ultrasound Guided Vascular Access The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	03/08/2013
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Las Vegas, Nevada	03/09/2013
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	03/16/2013
Ultrasound Guided Vascular Access The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	03/16/2013
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) Atlanta, Georgia	03/17/2013
Femoral and Saphenous Blocks The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) New York, New York	04/06/2013
Ultrasound Guided Vascular Access The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) New York, New York	04/06/2013
Documentation & Billing: Getting Properly Paid for Your Labors The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) New York, New York	04/07/2013
Nerve Injury and LA Toxicity: Facts and Fiction The USRA Skills Course. Sponsored by Institute for Advanced Medical Education (IAME) New York, New York	04/07/2013
Ambulatory Continuous Regional Analgesia Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Scottsdale, Arizona	04/12/2013

Hands-On Workshop: Regional Ultrasound Techniques Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Scottsdale, Arizona	04/13/2013
Resident Hands-On Workshop: Regional Ultrasound Techniques Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Scottsdale, Arizona	04/13/2013
How Do I Set Up an Ambulatory Pain Service? What Do I Need? Is it Worth it? Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Baltimore, Maryland	04/24/2014
Hands-On Workshop: Advanced (Catheter Placement) Regional Ultrasound Workshop Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Baltimore, Maryland	04/25/2014
Hands-On Workshop: BASIC (Single Shot) Regional Ultrasound Workshop Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Baltimore, Maryland	04/25/2014
Resident Only Hands-On Workshop: Regional Ultrasound Techniques Society for Ambulatory Anesthesia (SAMBA) Annual Meeting Baltimore, Maryland	04/26/2014
Regional Anesthesia for Lower Limb: Surgery Update Anaesthesia and Critical Care Symposium Mayo, Ireland	09/10/2016
Whole- Exome Sequencing of a Family Quartet of Local Anesthesia Resistance ASA National Scientific Congress 2016 Melbourne, Australia	09/17/2016
Peripheral nerve blockade in a patient with Ehlers-Danlos Syndrome and local anesthetic resistance ASA National Scientific Congress 2016 Melbourne, Australia	09/18/2016
Local Anesthetic Resistance and Genomic Sequencing Clendenen SR. American Society of Anesthesiologists Annual Meeting Chicago, Illinois	10/23/2016
Pharmacogenomics to Pharmacogenomics to Pharmaco-omics: Implications for Regional Anesthesia and Pain Management (Moderator) Clendenen SR. American Society of Anesthesiologists Annual Meeting Chicago, Illinois	10/23/2016
Oral Ultrasound & Regional Anesthesia 4th Annual Symposium ISURA 2007 Schloss, Germany	03/2007
Thoracic Paravertebral, Intercostal Blocks 32nd annual Regional Anesthesia Meeting & Workshop Vancouver, British Columbia, Canada	04/2007
Regional Anesthesia Visiting Faculty 20th Annual Carolina Refresher Course, Wake Forest University, Winston-Salem, NC Kiawah, South Carolina	06/2007

Pros & Cons of Ultrasound-Guided Nerve Blocks Mayo Clinic Symposium on Anesthesia & Perioperative Medicine Phoenix, Arizona	02/19/2009
Regional Anesthesia Workshop Mayo Clinic Symposium on Anesthesia & Perioperative Medicine Phoenix, Arizona	02/19/2009
Regional Anesthesia Workshop Mayo Clinic Symposium on Anesthesia & Perioperative Medicine Phoenix, Arizona	02/18/2010
New Techniques in Regional Anesthesia Mayo Clinic Symposium on Anesthesia & Perioperative Medicine Phoenix, Arizona	02/20/2010
Ultrasound Detection of the Vasa Nervorum of the Popliteal Sciatic Nerve by Color Power Angio (Poster) International Anesthesia Research Society (IARS) annual meeting Vancouver, British Columbia, Canada	05/21/2011
Intraoperative Management of an Ischemic Hand After Radial Artery Catheterization (Poster) Authors: Maryak BN, Clendenen SR International Anesthesia Research Society (IARS) annual meeting Vancouver, British Columbia, Canada	05/22/2011
Billing For Ultrasound Guided Blocks 2011 Ultrasound Guided Regional Anesthesia And Vascular Access Workshop Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina	07/06/2011
Hands-On Demonstration and Practice Sessions with Various Ultrasound Machines as Provided by Vendors (Workshop Moderator) 2011 Ultrasound Guided Regional Anesthesia And Vascular Access Workshop Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina	07/06/2011
Ultrasound Anatomy of Neck and Upper Extremity 2011 Ultrasound Guided Regional Anesthesia And Vascular Access Workshop Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina	07/06/2011
Ultrasound Anatomy of the Lower Extremity 2011 Ultrasound Guided Regional Anesthesia And Vascular Access Workshop Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina	07/06/2011
Ultrasound 101: What's Different about Ultrasound for Regional Anesthesia? Anesthesia Update: Emphasis on Regional Anesthesia and Pain Management Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina	07/07/2011
Ultrasound Guided Vascular Access Anesthesia Update: Emphasis on Regional Anesthesia and Pain Management Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina	07/07/2011
Regional Anesthesia and Analgesia for Orthopedic Surgery Anesthesia Update: Emphasis on Regional Anesthesia and Pain Management Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina	07/08/2011

<p>Ultrasound Anatomy of the Lower Extremity and Needle Approaches for Successful Blockade Anesthesia Update: Emphasis on Regional Anesthesia and Pain Management Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina</p>	07/09/2011
<p>Ultrasound Anatomy of the Neck and Upper Extremity and Needle Approaches for Successful Blockade Anesthesia Update: Emphasis on Regional Anesthesia and Pain Management Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina</p>	07/09/2011
<p>Paravertebral and Thoracic Nerve Blocks Anesthesia Update: Emphasis on Regional Anesthesia and Pain Management Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina</p>	07/10/2011
<p>Regional Anesthesia Complication: Nerve Injury and Local Anesthesia Toxicity Anesthesia Update: Emphasis on Regional Anesthesia and Pain Management Northwest Anesthesia Seminars, Inc. (NWAS) Myrtle Beach, South Carolina</p>	07/10/2011
<p>3-Dimensional Ultrasound for Regional Anesthesia [Poster] Authors: Clendenen SR. American Society of Anesthesiologists Annual Meeting Chicago, Illinois</p>	10/15/2011 - 10/19/2011
<p>Principles of Clinical Ultrasound Use for Regional and Vascular Access Northwest Anesthesia Seminars, Inc. (NWAS) Dallas, Texas</p>	02/29/2012
<p>Ultrasound Anatomy of Neck and Upper Extremity Northwest Anesthesia Seminars, Inc. (NWAS) Dallas, Texas</p>	02/29/2012
<p>Ultrasound Anatomy of the Lower Extremity Northwest Anesthesia Seminars, Inc. (NWAS) Dallas, Texas</p>	02/29/2012
<p>Ultrasound facilitated epidurals and spinals in obstetrics The 5th International Symposium on Anesthesia and related fields: Update in Obstetrical Anesthesia B'nai Brak, Israel</p>	08/31/2012
<p>Ultrasound Guided Nerve Blocks - Workshop 3rd International Congress of the Society of Anesthesiology and Reanomatology of the Republic of Moldova in Conjunction with Congress on Emergency Medicine Chisinau, Moldova</p>	09/06/2012
<p>What patients and procedures should be considered for a regional anaesthetic technique. 3rd International Congress of the Society of Anesthesiology and Reanomatology of the Republic of Moldova in Conjunction with Congress on Emergency Medicine Chisinau, Moldova</p>	09/07/2012
<p>TAP Block, Paravertebral Block or Thoracic Epidural: Is there an ideal Truncal Block? American Society of Anesthesiologists Annual Meeting Washington, District of Columbia</p>	10/14/2012
<p>Perineural Catheter Infusion Management 1st Annual Acute Pain Medicine & Regional Anesthesia Course Baltimore, Maryland</p>	04/26/2013

Cadaver Dissection + Ultrasound Guided Cadaver Blocks (Workshops) 1st Annual Acute Pain Medicine & Regional Anesthesia Course Baltimore, Maryland	04/27/2013
Periprocedural Workshop (Femoral, Sciatic, Peroneal, P. Tibial, Saphenous, TAP) The American Academy of Pain Medicine Annual Conference Phoenix, Arizona	03/06/2014
Transversus Abdominis Plane Block, Paravertebral Block or Thoracic Epidural: Is There an Ideal Truncal Block? American Society of Anesthesiologists Annual Meeting New Orleans, Louisiana	10/12/2014
Infrapatellar Saphenous Neuralgia After TKA Can Be Improved With Ultrasound-guided Local Treatments American Society of Regional Anesthesia and Pain Medicine San Francisco, California	11/14/2014
Clinical Protocols in Regional Anesthesia and Acute Pain 3rd Annual Acute Pain Medicine & Regional Anesthesia Course Baltimore, Maryland	02/14/2015
Whole Exome Sequencing of a Family with Local Anesthetic Resistance Individualizing Medicine 2015 Conference Rochester, Minnesota	09/2015
Basic Lower Limb Workshop - Popliteal, Ankle 12th International Symposium of Ultrasound for Regional Anesthesia and Pain Medicine (ISURA) Rotterdam, Netherlands	10/03/2015
Different approaches to sciatic nerve, lumbar plexus, obturator nerve, and lateral femoral cutaneous nerve. Hip and Knee Advanced Workshop 12th International Symposium of Ultrasound for Regional Anesthesia and Pain Medicine (ISURA) Rotterdam, Netherlands	10/03/2015
Ultrasound 101: What's Different Ultrasound for Regional Anesthesia? Northwest Anesthesia Seminars, Inc. (NWAS) Wyoming	06/06/2016
Ultrasound Guided Vascular Access Northwest Anesthesia Seminars, Inc. (NWAS) Wyoming	06/06/2016
Peripheral Nerve Catheters and Home Management Northwest Anesthesia Seminars, Inc. (NWAS) Wyoming	06/07/2016
US Guided Central Neuraxial Block: Spinals, Thoracic Lumbar Epidurals Northwest Anesthesia Seminars, Inc. (NWAS) Wyoming	06/07/2016
Obstructive Sleep Apnea Northwest Anesthesia Seminars, Inc. (NWAS) Wyoming	06/09/2016
Enhanced Recovery Protocols and Anesthesia Northwest Anesthesia Seminars, Inc. (NWAS) Wyoming	06/10/2016
Mgmt of Cerebral Aneurysms: Interventional Radiology in the O.R. Northwest Anesthesia Seminars, Inc. (NWAS) Wyoming	06/10/2016

Perioperative Gabapentin (PRO/CON) (PBLD) Acute Pain Medicine & Regional Anesthesia Course Baltimore, Maryland	02/24/2017
Sciatic Ultrasound Guided Blocks Acute Pain Medicine & Regional Anesthesia Course Baltimore, Maryland	02/24/2017
Truncal Ultrasound Acute Pain Medicine & Regional Anesthesia Course Baltimore, Maryland	02/25/2017
Ultrasound 101: What's Different About Ultrasound for Regional Anesthesia? Northwest Anesthesia Seminars, Inc. (NWAS) Amelia Island, Florida	09/25/2017
Ultrasound Guided Vascular Access Northwest Anesthesia Seminars, Inc. (NWAS) Amelia Island, Florida	09/25/2017
Ultrasound-Guided Central Neuraxial Block: Spinals, Thoracic, and Lumbar Epidurals Northwest Anesthesia Seminars, Inc. (NWAS) Amelia Island, Florida	09/26/2017
Acute Pain Management in the Chronic Pain Patient Northwest Anesthesia Seminars, Inc. (NWAS) Amelia Island, Florida	09/27/2017
Enhanced Recovery Protocols and Anesthesia Northwest Anesthesia Seminars, Inc. (NWAS) Amelia Island, Florida	09/27/2017
Regional Anesthesia Complication: Nerve Injury and Local Anesthesia Toxicity Northwest Anesthesia Seminars, Inc. (NWAS) Amelia Island, Florida	09/27/2017
Poster	
Interscalene Brachial Plexus Block with Sparing of Phrenic Nerve by Interscalene Catheter (Poster) Authors: Clendenen SR, Rajendran S, Bauer P, Weinstein DM, Elias JJ. American Society of Regional Anesthesiologists (ASRA) Annual Meeting Toronto, Ontario, Canada	04/21/2005 - 04/25/2005
3D Ultrasound-Assisted popliteal Catheter Placement (Poster) Authors: Clendenen S, Feinglass NG, Greengrass RA. American Society of Regional Anesthesiologists (ASRA) 31st Annual Meeting Rancho Mirage, California	04/06/2006 - 04/09/2006
3D Ultrasound-Assisted popliteal Catheter Placement (Poster) Authors: Clendenen S, Feinglass NG, Greengrass RA. 5th Regional Anesthesia & Acute Pain Management Meeting. New York School of Regional Anesthesiologists (NYSORA) Annual Meeting New York, New York	12/16/2006 - 12/17/2006
The Role of Regional Anesthesia in Evaluating the Feasibility of Peripheral Sympathectomy in a Patient with Raynaud's Phenomenon (Poster) Authors: Emerson BR, Feinglass NG, Greengrass RA, Clendenen SR American Society of Regional Anesthesiologists 32nd Annual Meeting Vancouver, British Columbia, Canada	04/19/2007 - 04/22/2007
3D Ultrasound and Central Venous Catheter Insertion International Anesthesia Research Society Annual Meeting San Francisco, California	08/2007

Paravertebral Blocks for Pain Control in Patients Undergoing Hand-Assisted Laparoscopic Nephrectomy (Poster) Society of Laparoscopic Surgeons Annual Meeting San Francisco, California	09/07/2007
Paravertebral Blocks for Postoperative Analgesia Following Laparoscopic Nephrectomy for a Patient with Critical Aortic Stenosis (Poster) Authors: Clendenen SR, Harrison BA, Greengrass RA. American Society of Anesthesiologists Annual Meeting San Francisco, California	10/13/2007 - 10/17/2007
Percutaneous Localization of Nerves Using the Stimuplex Pen (Poster) American Society of Anesthesiologists Annual Meeting San Francisco, California	10/13/2007 - 10/17/2007
Real-Time 3-Dimensional Ultrasound for Continuous Interscalene Brachial Plexus Block (Poster) Authors: Clendenen SR, Greengrass RA, Riutort K, Brull SJ. American Society of Anesthesiologists Annual Meeting San Francisco, California	10/13/2007 - 10/17/2007
3-Dimensional Ultrasound-Guided Axillary Nerve Block (poster) Clendenen SR, Ladlie B, Greengrass RA (Authors) 14th World Congress of Anaesthesiologists Cape Town, South Africa	03/06/2008
Real-Time 3-Dimensional Ultrasound for Continuous Interscalene Brachial Plexus Blockade (poster) Clendenen SR, Greengrass RA, Riutort KT, Brull SJ (Authors) 14th World Congress of Anaesthesiologists Cape Town, South Africa	03/06/2008
3D Ultrasound and Central Venous Catheter Insertion (Poster) Authors: Harrison BA, Clendenen SR, Shine TS, Clendenen NJ, Aniskevich S International Anesthesia Research Society Annual Meeting San Francisco, California	03/29/2008 - 04/01/2008
A Case of Peripheral Nerve Blocks Aiding in the Diagnosis of Acute Myocardial Infarction (Poster) Authors: Noboa JA, Clendenen SR, Harrison BA International Anesthesia Research Society Annual Meeting San Francisco, California	03/29/2008 - 04/01/2008
Epidural versus Peripheral Nerve Catheters for Analgesia Post-Total Knee Arthroplasty (Poster) Authors: Harrison BA, Clendenen NJ, Clendenen SR, Blasser K, Greengrass R International Anesthesia Research Society Annual Meeting San Francisco, California	03/29/2008 - 04/01/2008
Real-Time 3-Dimensional Ultrasound for Continuous Infraclavicular Brachial Plexus Blockade (Poster) Authors: Clendenen SR, Freidenstein JE, Clendenen NJ International Anesthesia Research Society Annual Meeting San Francisco, California	03/29/2008 - 04/01/2008
Regional Anesthesia for Middle Fossa Craniotomy for Semicircular Canal Surgery (Poster) Authors: Rodriguez GA, Greengrass RA, Clendenen SR, Lundy L, Cucchiara RF International Anesthesia Research Society Annual Meeting San Francisco, California	03/29/2008 - 04/01/2008

- Femoral Catheter Placement Utilizing Ultrasound and a Needle Guidance System (Poster) 05/02/2008
 Authors: Plunkett A, Orallo P, Greengrass RA, Buckenmaier CC, Clendenen SA.
 American Society of Regional Anesthesiologists (ASRA) 33rd Annual Meeting
 Playa del Carmen, Cancun, Mexico, Mexico
- Pregabalin with Interscalene Block Does not Reduce the Opioid Requirement following Arthroscopic Rotator Cuff Repair (Poster) 05/02/2008
 Authors: Clendenen SR, Rajendran S, Greengrass RA, Weinstein D, Kopacz D.
 American Society of Regional Anesthesiologists (ASRA) 33rd Annual Meeting
 Playa del Carmen, Cancun, Mexico, Mexico
- Management of an emergent cerebral aneurysm with an anterior mediastinal mass [Poster]. 10/16/2008 - 10/20/2008
 Authors: Cartwright JA, Clendenen SR
 American Society of Anesthesiologists Annual Meeting
 San Diego, California
- Acute Pulmonary Edema with Multi-System Organ Failure During Right Total Shoulder Arthroplasty [Poster]. 10/18/2008 - 10/20/2008
 Authors: Freidenstein JE, Clendenen SR.
 American Society of Anesthesiologists Annual Meeting
 Orlando, Florida
- Popliteal catheter placement utilizing needle guidance system [Poster/Abstract A633]. 10/18/2008 - 10/20/2008
 Authors: Clendenen SR, Feinglass NG, Ladlie BL, Emerson B, Greengrass RA.
 American Society of Anesthesiologists Annual Meeting
 Orlando, Florida
- Real-Time 3-Dimensional Ultrasound for Continuous Infraclavicular Brachial Plexus Blockade (poster) 11/08/2008
 Authors: Clendenen SR, Freidenstein JE, Clendenen N
 2nd European NYSORA. Symposium on Regional Anaesthesia and Pain Medicine.
 London, United Kingdom
- Continuous Popliteal and Saphenous Block for Foot Surgery (Poster) 03/14/2009 - 03/17/2009
 Authors: Ladlie BL, Clendenen SR, Robards CB, Whalen JL, Greengrass RA
 International Anesthesia Research Society Annual Meeting
 San Diego, California
- Saphenous and Popliteal Sciatic Nerve Catheters for Analgesia following Foot Surgery (Electronic Poster) 07/16/2009 - 07/18/2009
 Authors: Clendenen S, Ladlie B, Whalen J, Robards C, Greengrass RA
 American Orthopaedic Foot & Ankle Society. 25th Annual Summer Meeting
 Vancouver, British Columbia, Canada
- Anesthetic Management for Emergent Below-Knee Amputation for Patient with Ischemic Cardiomyopathy, Respiratory Failure, Congestive Heart Failure, and Anticoagulation: Regional Anesthesia? [Poster] 10/17/2009 - 10/21/2009
 Authors: Clendenen SR.
 American Society of Anesthesiologists Annual Meeting
 New Orleans, Louisiana
- Ultrasound-Guided Neuroma Resection and Saphenous Nerve Catheter Placement (Poster) 11/19/2009
 Authors: Bacani CJ, Clendenen SR, Murray PM.
 Pain Medicine Meeting and Workshops -- American Society of Regional Anesthesiologists (ASRA)
 San Antonio, Texas

Real-Time Three-Dimensional Ultrasound-Assisted Placement of Intrathecal Catheter: Implications of New Technology (Poster - won award for Best Showing in Chronic Pain) Authors: Clendenen SR, Robards CB, Leone BJ International Anesthesia Research Society (IARS) Annual Meeting Honolulu, Hawaii	03/20/2010 - 03/23/2010
The Effects of Continuous Popliteal Sciatic and Saphenous Nerve Blocks on Arterial Blood Flow for Reconstructive Free Flap Graft to the Ankle: A Doppler Ultrasound Study (Poster) Authors: Clendenen SR International Anesthesia Research Society (IARS) Annual Meeting Honolulu, Hawaii	03/20/2010 - 03/23/2010
Real-Time Three-Dimensional Ultrasound-Assisted Placement of Intrathecal Catheter: Implications of New Technology (Poster) Authors: Clendenen SR, Robards CB, Leone BJ International Symposium on Spine and Paravertebral Sonography for Anaesthesia and Pain Medicine (ISSPS) Hong Kong	03/28/2010 - 03/30/2010
Posterior Knee Pain Control Improvement Following Total Knee Arthroplasty with Scheduled Nurse-Delivered Sciatic Nerve Catheter Boluses (Poster) Authors: Clendenen AM, Christopher-Smith K, Howe B, Ladlie B, Clendenen SR American Society of Regional Anesthesia (ASRA) Annual Meeting Toronto, Ontario, Canada	04/22/2010 - 04/25/2010
Symptomatic Post-Laminectomy Cerebrospinal Fluid Leak (Poster) Authors: Clendenen SR, Robards CB, Leone BJ American Society of Regional Anesthesia (ASRA) Annual Meeting Toronto, Ontario, Canada	04/22/2010 - 04/25/2010
Electromagnetic Navigation or Piriformis Injection (video and poster) Authors: Clendenen SR, Ghazi S, Palmer S, Osborne M. American Society of Regional Anesthesia (ASRA) Annual Meeting Phoenix, Arizona	11/18/2010 - 11/21/2010
Preoperative Ultrasound Findings in Patients Undergoing Brachial Plexus Repair Authors: Renew R, Clendenen SC American Society of Regional Anesthesia (ASRA) Annual Meeting San Diego, California	03/16/2012
Exome Sequencing of a Patient with Local Anesthetic Resistance Stanford Medicine X Annual Conference Palo Alto, California	09/05/2014
WHOLE EXOME SEQUENCING OF A FAMILY WITH LOCAL ANESTHETIC RESISTANCE IARS 2015 Annual Meeting and International Science Symposium Honolulu, Hawaii	03/2015
Ultrasound-guided radiofrequency ablation of the infrapatellar nerve in the poor surgical candidate: A case report of a patient with Milroy Disease and severe knee osteoarthritis. American Society of Regional Anesthesia and Pain Medicine Las Vegas, Nevada	05/2015
A Comparative Cadaver Study of Automated Pulsed Bolus Versus Continuous Basal Infusion on Distribution of Dye in Popliteal and Adductor Canal Nerve Block Catheters (poster) American Society of Regional Anesthesiology (ASRA) San Diego, California	11/18/2016

Regional Anesthesia for Rectus Abdominis Muscle Endometriosis Treated with Ethanol Injection SIMPAN - ISURA Meeting 2017 Florence, Italy	03/31/2017
A Comparative Cadaver Study of Automated Pulsed Bolus Versus Continuous Basal Infusion on Distribution of Dye in Interscalene Nerve Block Catheters (Poster) Authors: Budde B, Clendenen SR American Society of Regional Anesthesiologists South San Francisco, California	04/06/2017
Suprascapular Nerve Injury Following Ultrasound Guided Supraclavicular Brachial Plexus Block (Poster) American Society of Regional Anesthesiologists (ASRA) South San Francisco, California	04/06/2017
Regional	
Invited	
Anesthesia Equipment for ENT Surgery 6th Annual Equipment Meeting, Mayo Clinic Orlando, Florida	02/1998
Regional Anesthesia & Analgesia for Orthopedic Surgery 2nd Florida Hospital Peripheral Nerve Block Workshop Orlando, Florida	01/26/2008
Ultrasound Imaging and Regional Anesthesia 2nd Florida Hospital Peripheral Nerve Block Workshop Orlando, Florida	01/26/2008
Local Anesthetic Toxicity Florida Society of Anesthesiologists Annual Meeting Palm Beach, Florida	06/28/2008
Moderator: Resident Oral Board Review Session Florida Society of Anesthesiologists Annual Meeting Palm Beach, Florida	06/29/2008
Workshop: Ultrasound for Lower Extremity Florida Society of Anesthesiologists (FSA) Annual Meeting Palm Beach, Florida	06/25/2010
Workshop: Ultrasound for Upper Extremity Florida Society of Anesthesiologists (FSA) Annual Meeting Palm Beach, Florida	06/25/2010
Pro/Con: Ultrasound for Nerve Blocks Florida Society of Anesthesiologists (FSA) Annual Meeting Palm Beach, Florida	06/26/2010
Designing and Implementing an Acute Pain Service in a Community Hospital Administration Lecture, John C. Lincoln Health Network Phoenix, Arizona	08/11/2010
Role of an Acute Pain Service in a Community Hospital Trauma Grand Rounds, John C. Lincoln Health Network Phoenix, Arizona	08/12/2010
Ultrasound Workshop: 'Everything you Never Thought of Using Your Ultrasound For' Part 1 Florida Society of Anesthesiologists (FSA) Annual Meeting Palm Beach, Florida	06/10/2011

Ultrasound Workshop: 'Everything you Never Thought of Using Your Ultrasound For' Part 2 Florida Society of Anesthesiologists (FSA) Annual Meeting Palm Beach, Florida	06/10/2011
Acute Pain Management for the Chronic Pain Patient Yale University School of Medicine - All Residents Lecture New Haven, Connecticut	01/24/2012
Lipid Rescue: Are You Prepared? Annual Meeting - American Society of Perianesthesia Nurses (ASPAN) Orlando, Florida	04/18/2012
Regional Blocks for Ambulatory Care Annual Meeting - American Society of Perianesthesia Nurses (ASPAN) Orlando, Florida	04/19/2012
Common Paravertebral Nerve Blocks and Local Anesthesia Systemic Toxicity Jacksonville Area Society of Perioperative Nursing Jacksonville, Florida	10/2017
Oral	
Granuloma Tissue Formation After Short Term Transtracheal Intubation 22nd Annual Gulf Atlantic Anesthesia Residents Conference (GAARC) Tampa, Florida	04/1996
Complications of Tracheal Tubes and Tracheostomy Tubes 5th Annual Equipment Meeting, Mayo Clinic Orlando, Florida	02/1997
Anaphylactic Reaction Following Cisatracurium 23rd Annual Gulf Atlantic Anesthesia Residents Conference (GAARC) Tampa, Florida	05/1997
Regional Anesthesia vs. General Anesthesia for Lower Extremity Orthopedic Surgery in the Elderly Florida Society of Anesthesiologists Annual mtg Palm Beach, Florida	06/26/2009
Ultrasound vs. No Ultrasound for Regional Anesthesia Florida Society of Anesthesiologists Annual mtg Palm Beach, Florida	06/26/2009
Local Anesthetic Toxicity and Lipid Rescue Florida Society of Perianesthesia Nurses (FLASPAN) 40th Annual Seminar Orlando, Florida	10/24/2009
Regional Anesthesia and Acute Pain Medicine Mayo Clinic Symposium on Anesthesia and Perioperative Medicine Fort Lauderdale, Florida	03/10/2011
Regional Anesthesia Workshop - Upper Extremity Mayo Clinic Symposium on Anesthesia and Perioperative Medicine Fort Lauderdale, Florida	03/11/2011
Ultrasound-Guided Neuraxial Blocks Mayo Clinic Symposium of Anesthesia and Perioperative Medicine Fort Lauderdale, Florida	03/11/2011
Acute Pain Management for the Chronic Pain Patient Mayo Clinic Symposium of Anesthesia and Perioperative Medicine Scottsdale, Arizona	02/24/2012

Poster

A Comparative Cadaver Study of Automated Pulsed Bolus Versus Continuous Basal Infusion on Distribution of Dye in a Thoracic Paravertebral and Transversus Abdominus Plane Catheters
 American Society of Regional Anesthesiology (ASRA)
 San Diego, California 11/17/2016

Visiting Professorship**Visiting Professorships**

Diaphragm Paralysis with Interscalene Brachial Plexus Block
 Department of Anesthesiology, Mayo Clinic
 Jacksonville, Florida 01/10/2005

Regional Anesthesia
 Grand Rounds, Department of Anesthesiology, Wayne State University
 Detroit, Michigan 05/09/2007

Ultrasound for Regional Anesthesia
 Grand Rounds, Department of Anesthesiology, University of Miami School of Medicine
 Miami, Florida 06/09/2011

Ultrasound-Guided Neuraxial Blocks
 Grand Rounds, Department of Anesthesiology, University of Florida School of Medicine
 Jacksonville, Florida 08/03/2011

Ultrasound for the Anesthesiologist: Current Trends and Future Technology
 Grand Rounds, Department of Anesthesiology, West Virginia University School of Medicine
 Morgantown, West Virginia 08/31/2011

Ultrasound-Guided Neuraxial Blocks and Emerging Ultrasound Technology.
 Yale University School of Medicine - Grand Rounds
 New Haven, Connecticut 01/25/2012

Acute Pain Management for the Chronic Pain Patient
 Ochsner's Grand Rounds - Dept. of Anesthesiology
 New Orleans, Louisiana 04/08/2014 - 04/09/2014

Failure of Regional Anesthesia: Whole Exome Sequencing of a Family Quartet with Local Anesthesia Resistance
 Anesthesia Grand Rounds, Royal Perth Hospital
 Perth, Australia 09/29/2016 - Present

Clinical Practice, Interests, and Accomplishments

Regional anesthesia / Ambulatory anesthesia - utilization of perineural catheters for postoperative pain management. Use of 2-Dimensional (2-D),(3-D)and (4-D) ultrasound-guided regional anesthesia. 2008 - developed "Guidelines for the Management of Severe Local Anesthetic Toxicity" for quality assurance project.

Research Interests

US Patent Number: US 43820 - (filed, but currently not issued) System and Method for Detecting Vascular Contamination of Surgical Anesthetic by Non-Invasive IR Spectrophotometry - Inventors: Steven R. Clendenen, M.D., Barry K. Gilbert, Ph.D., Clifton R. Haider, Ph.D. IRB # 07-001891 Exempt. Title: 3 D Ultrasound Imaging of the Sciatic Nerve. Principal Investigator. 2007 IRB # 07-002104 Exempt. Title: Percutaneous localization of nerves using the B Braun Stimuplex Pen. Co-Investigator. 2007 IRB # 08-002290 Exempt. Title: Peripheral Nerve Blockade Facilitates Early Diagnosis of Post-operative AMI. Co-Investigator. 2008 IRB # 08-007278 Exempt. Title: TEE a new window into the spine. Co-Investigator. 2008 IRB # 09-000132 Exempt. Title: Retrospective review of patients who received continous saphenous and continuous popliiteal nerve block for foot and ankle surgery. Co-Investigator. 2009 IRB # 09-001723 Exempt. Title: Transversus abdominus plane block versus conventional pain control modalities for laparoscopic living donor nephrectomies. Co-Principal Investigator. 2009 IRB # 10-001813 Exempt. Title: Performance improvement project and epidural analgeisa. Co-Investigator. 2010 IRB # 13-000118 Exempt. Title: Chart Review of Aspiration of Ultrasound Guided Apiration Lumbar Pseudomeningocele and Epidural Blood Patch. Principal Investigator. 2013

Research Grants Awarded

Active Grants

Industry

Program Director / Principal Investigator	Ultrasound Image Fusion. Funded by Medtronic Incorporated	02/2010 - 12/2010
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Completed Grants**Industry**

Program Director / Principal Investigator	Onyx 1.0. Funded by Phillips Ultrasound, Inc.	03/2011
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Mayo Clinic

Principal Investigator	Postoperative Nausea and Vomiting (PONV) Associated with Manual Ventilation at Anesthesia Induction. Funded by Mayo Clinic Jacksonville	09/1996 - 08/1997
Principal Investigator	PONV Associated with Ventilation at Anesthesia Induction - Budget for 2nd Yr. Funded by Mayo Clinic Jacksonville	09/1997 - 08/1998
Principal Investigator	Pregabalin as an adjunct for postoperative analgesia to achieve opioid sparing in patients undergoing rotator cuff repair. Funded by Mayo Clinic Jacksonville	07/2006 - 07/2009
Principal Investigator	Use of Pregabalin as an Opioid-sparing Co-analgesic for Total Knee Arthroplasty - TKA Pregabalin. Funded by Mayo Clinic Jacksonville	08/2006 - 08/2007
Principal Investigator	PVB: Pilot Study to Compare Nerve Stimulation vs. Anatomic Landmark for Hernia Repair. Funded by Mayo Clinic Jacksonville	01/2008 - 12/2009
Principal Investigator	Paravertebral Blocks Techniques. Funded by Mayo Clinic Jacksonville	01/2008 - 01/2009
Program Director / Principal Investigator	Paravertebral Blocks Techniques. Funded by Mayo Clinic Jacksonville	01/2008 - 01/2010
Program Director / Principal Investigator	DNA analysis of a patient with total resistance to local anesthetic. Funded by Clinical Research Subcommittee	03/2012 - 01/2013

Other

Pilot Study: Hemidiaphragm Paresis with Interscalene Brachial Plexus Block. Med Research Institute of Colorado; Colorado Springs, CO	11/2004
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Peer-reviewed Articles

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2. Feinglass NG, **Clendenen SR**, Torp KD, Wang RD, Castello R, Greengrass RA. Real-time three-dimensional ultrasound for continuous popliteal blockade: a case report and image description. *Anesth Analg*. 2007 Jul; 105: (1)272-4. PMID: 17578987 DOI: 10.1213/01.ane.0000265439.02497.a7
3. Robards C, **Clendenen S**, Greengrass R. Intravascular injection during ultrasound-guided axillary block: negative aspiration can be misleading. *Anesth Analg*. 2008 Nov; 107(5):1754-5. PMID: 18931244 DOI: 10.1213/ane.0b013e31818454ec
4. **Clendenen SR**, Kostick DA. Ocular globe luxation under general anesthesia. *Anesth Analg*. 2008 Nov; 107 (5):1630-1. PMID: 18931223 DOI: 10.1213/ane.0b013e3181839262
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7. **Clendenen SR**, Riutort K, Ladlie BL, Robards C, Franco CD, Greengrass RA. Real-time three-dimensional ultrasound-assisted axillary plexus block defines soft tissue planes. *Anesth Analg*. 2009 Apr; 108: (4)1347-50. PMID: 19299811 DOI: 10.1213/ane.0b013e3181981e79
8. Robards C, Wang RD, **Clendenen S**, Ladlie B, Greengrass R. Sciatic nerve catheter placement: success with using the Raj approach. *Anesth Analg*. 2009 Sep; 109(3):972-5. PMID: 19690275 DOI: 10.1213/ane.0b013e3181ae0ee7
9. **Clendenen SR**, Wehle MJ, Rodriguez GA, Greengrass RA. Paravertebral block provides significant opioid sparing after hand-assisted laparoscopic nephrectomy: an expanded case report of 30 patients. *J Endourol*. 2009 Dec; 23: (12)1979-83. PMID: 19919257 DOI: 10.1089/end.2009.0095
10. **Clendenen SR**, Robards CB, Greengrass RA. Popliteal catheter placement utilizing ultrasound needle guidance system. *Local Reg Anesth*. 2010; 3:45-8. Epub 2010 Jul 29. PMID: 22915868 PMCID: 3417947
11. **Clendenen SR**, Rajendran S, Kopacz DJ, Greengrass RA, Robards CB, Weinstein DM, Brodersen MP, Ortiguera CJ, Crook J, Logvinov II. Pregabalin as an adjunct to a multimodal analgesic regimen to achieve opioid sparing in arthroscopic rotator cuff repair. *J Rom Anesth Terap Int*. 2010; 17:5-10.
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Forthcoming

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2. * Golbaba B, Isenhower M, **Clendenen S**. Revision Total Shoulder Arthroplasty with Unrecognized Subclavian Artery Aneurysm Rupture 2014.
3. * Riutort K, Wang RD, **Clendenen SR**, Robards CB, Porter SB, Greengrass RA. The lumbar plexus block: predicting the location of landmarks in adult patients with scoliosis of the spine. 2014.

* Indicates that the primary author was a mentee of this author.