

Board Certifications

**American Medical Informatics Association (AMIA) via
American Board of Preventive Medicine (ABPM)**

Diplomate Clinical (Medical) Informatics, January 1, 2015
Certificate No. 071384

American Board of Medical Specialties (ABMS) Member
Accreditation Council of Graduate Medical Education (ACGME)
Recognized

United Council for Neurologic Subspecialties (UCNS)

Diplomate Neurocritical Care, December 31, 2013
Certificate No. NCC01018-13

Society of Neurological Surgeons (SNS)

Committee on Accreditation of Subspecialty Training (CAST)

Diplomate Neurocritical Care, October 2013.
(One of the Inaugural Six Diplomates of the specialty)

American Board of Neurological Surgeons (ABNS)

Diplomate, Neurosurgery, November 2012
Certificate No. 32144

American Board of Medical Specialties (ABMS) Member
Accreditation Council of Graduate Medical Education (ACGME)
Recognized

**National Board of Medical Examiners / Federation of State Medical
Boards United States Medical Licensing Examination (USMLE)**

Diplomate, August 2000
USMLE ID# 50238013

Fellow Memberships

Fellow Society of Critical Care Medicine (F.C.C.M.)
January 2017

Fellow American Heart Association (F.A.H.A.)
October 2016

Fellow Neurocritical Care Society (F.N.C.S.)
July 2015

Fellow American College of Surgeons (F.A.C.S.)
October 2013

Fellow American Association of Neurological Surgeons (F.A.A.N.S.)
March 2013

Current Positions

Trauma and Neurocritical Care Neurosurgeon July 2015 – present
Medical Director of Neurocritical Care
Neurocritical Care Course Director (UWSMPH 2019)
CAST Neurocritical Care Fellowship Director
UCNS Neurocritical Care Fellowship Director (NCC1054)
Quality Improvement Chair for Department of Neurosurgery
Associate Professor of Neurosurgery, Pathology and Biomedical
Engineering (Tenured)
University of Wisconsin School of Medicine and Public Health

University of Wisconsin Hospital and Clinics
Department of Neurosurgery Rm. K4/822
600 Highland Ave.
Madison, WI 53792

Chief Medical Technology Officer July 2014 – present
Integrated Vital Medical Dynamics
Middleton, WI

Previous Positions

Trauma / Critical Care Neurosurgeon July 2008 – June 2015
Medical Director of Neurocritical Care
Quality Improvement Chair for Department of Neurosurgery
Assistant Professor of Neurosurgery and Biomedical Engineering
University of Wisconsin School of Medicine and Public Health

University of Wisconsin Hospital and Clinics
Department of Neurosurgery Rm. K4/822
600 Highland Ave.
Madison, WI 53792

Trauma / Critical Care Neurosurgeon July 2006 – June 2008
 Clinical Instructor of Neurosurgery
 University of Wisconsin School of Medicine and Public Health

University of Wisconsin Hospital and Clinics
 Department of Neurosurgery Rm. K4/822
 600 Highland Ave.
 Madison, WI 53792

Education

- B.S., Kinesiology (Biomechanics) August 1991 – May 1995
Highest Honors with High Distinction in the Curriculum
 University of Illinois
 College of Applied Life Studies
 Urbana – Champaign, IL
- M.D., University of Illinois College of Medicine August 1995 – May 1999
 Chicago, IL
- M.S., Clinical investigation July 2007–December 2010
 University of Wisconsin School of Medicine and Public Health
 Madison, WI
- Physician Leadership Development Program
 University of Wisconsin Medical Foundation April 2012–December 2013
 Madison, WI
- PhD., Clinical investigation – Informatics June 2017 – May 2018
 University of Wisconsin School of Medicine and Public Health Defense March 15th 2019
 Madison, WI

Committee Chair: **Eneida Mendonca MD, PhD** Associate Professor
 Department of Biostatistics and Medical Informatics

Committee Members:

David DeMets PhD Professor Emeritus Department of Biostatistics and Medical Informatics
 Robert Dempsey MD Professor and Chairman Department of Neurosurgery
 David Page PhD Professor Department of Biostatistics and Medical Informatics
 Christine Sorkness PharmD Professor of Pharmacy and Senior Associate

Executive Director ICTR
Umberto Tachincardi MD Associate Dean and Professor of Biomedical
Informatics
Elliot Williams MD, PhD Professor of Medicine, Hematology Section

Internship

Internship in General Surgery	July 1999 – June 2000
Department of General Surgery	
University of Wisconsin Hospital and Clinics	
Room H4/710	
600 Highland Ave.	
Madison, WI 53792	
Chairman: Layton F. Rikkers, MD	

Residency

Resident in Neurosurgery	July 1999 – June 2006
Department of Neurosurgery	
University of Wisconsin Hospital and Clinics	
Room K4/822	
600 Highland Ave.	
Madison, WI 53792	
Chairman: Robert J. Dempsey, MD	

Infolding Fellowship in Critical Care Medicine

Department of Medicine Division of Critical Care
University of Wisconsin Hospital and Clinics
Room A7/305
600 Highland Ave.
Madison, WI 53792
Comprehensive Critical Care Services Director: Dr. Kenneth Wood

Fellowship in Endovascular Neurosurgery and Neuroradiology

Fellow in Endovascular Neurosurgery	July 2006 – June 2008
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Departments of Neurosurgery and Neuroradiology
 University of Wisconsin Hospital and Clinics
 Room K4/822
 600 Highland Ave.
 Madison, WI 53792
 Neurosurgery Chairman: Robert J. Dempsey, MD
 Radiology Chairman: Thomas M. Grist, MD
 Chief of Neuroradiology: Howard A. Rowley, MD

Hospital Privileges

University of Wisconsin – Hospital and Clinics Medical Staff Affairs H4/831 CSC 600 Highland Ave. Madison, WI 53792 (608) 263-6601	2006 – present
William S. Middleton Memorial VA Hospital Medical Staff Affairs Room A5053 2500 Overlook Terrace Madison, WI 53705	2006 – present
Meriter Hospital Meriter Hospital Medical Staff Office 202 South Park Street Madison, WI 53715 (608) 267-6103	2006 – present
UW Health Rehab Hospital 5115 N Biltmore Ln Madison, WI 53718 (608) 592-8100	2018 – present

Certificates and Licensure

AMIA via ABPM Clinical (Medical) Informatics Written Exam	2015
Emergency Neurological Life Support (ENLS)	2014
NIH Stroke Scale (NIHSS) Certification	2014

NIH Office of Extramural Research Protecting Human Research Participants Certificate #: 1476241	2014
UCNS Neurocritical Care Written Exam	2013
ABNS Oral Board Exam	2012
Advanced Trauma Life Support (ATLS) Instructor	2012 – present
Collaborative Institutional Training Initiative (CITI)	
UW IRB Member/Staff (Human Subjects Research)	2008 – 2012
UW Biomedical Course (Human Subjects Research)	2008 – present
UW Good Clinical Practice for Drug/Device Researchers	2008 – present
UW Social and Behavioral Course (Human Subjects Research)	2008 – present
UW The Basics of Effort Reporting for SMPH – UWM	2017
Adult Conscious Sedation Certification	
UW Hospital and Clinics	2006 – present
Meriter Hospital	2008 – present
Middleton VA Hospital	2008 – present
ABNS Written Board Exam	2002 / 2003
UW Animal Responsible Care and Use of Laboratory Animals Certification	2002 – 2017
Advanced Trauma Life Support (ATLS)	2002 – present
USMLE Diplomate	2000
Step 3 Test: 6/29/2000 Result: 7/26/2000	
Step 2 Test: 8/25/1998 Result: 10/6/1998	
Step 1 Test: 6/10/1997 Result: 7/22/1997	
Wisconsin State Board Exam	2000
Wisconsin Licensure (current)	2000 – present
DEA (current)	2000 – present
Basic Life Support (BLS)	1998 – April 2018
Training Center: Wisconsin Middleton VA #W104574	
Instructor: Tess Handel, RN #06110569692	
Advanced Cardiovascular Life Support (ACLS)	1998–October 2020
Training Center: Wisconsin Middleton VA #W104574	
Instructor: Tess Handel, RN #06110569692	

Other Positions Held

Neurocritical Care Course Director	July 2019 – present
CAST Neurocritical Care Fellowship Director	Nov 2013 – present
UCNS Neurocritical Care Fellowship Director (NCC1054)	Dec 2014 – present
Speakers Bureau Abbott Laboratories	2014 – 2017
Computer Software Developer, G.D. Searle Pharmaceuticals	1993 – 1995
Multimedia Software Designer, College of Life Sciences, University of Illinois Urbana – Champaign	1992

Honors and Awards

Neurosurgery Certificate Of Accomplishment	2019	Award for completing an additional professional degree during a full clinical load.
University of Wisconsin Block Grant	2018	Award selected by medical school senior leadership given to faculty for outstanding achievement and exceptionally high performance
Neurosurgery Research Day Best Poster Award	2016	Award for best research project “RFID Based Smart Shunt System”
Neuroscience Teaching Citation	2017 2015 2013 2012 2011 2010	For excellence in clinical teaching of medical students during their 3 rd and 4 th year neuroscience rotation at the University of Wisconsin
Shapiro Research Award	2015	Jake Lescher Student Research Project on Teaching of Neurosurgical Procedures Through Video Clips
Madison Top Docs Award Neurosurgery Instruction/Clinical	2014	Madison area’s best physicians—as chosen by their peers in the local medical community

Simulation

Shapiro Research Award	2014	Benjamin Irvine Student Research Project on Automated Ventilator Testing Design
Best of Show Award	2013	UW Health Quality Week – Controlling Medication Costs in Neurocritical Care
Best of Show Award	2013	UW Health Quality Week – Improving Catheter Associated Urinary Tract Infections in Neurocritical Care
Extra Mile Award	2013	Awarded to a faculty member outside of the Department of Medicine who has made significant contributions to the department through teaching and clinical work.
Alpha Omega Alpha	2013	Medical Student Honor Society For Excellence in Teaching Medical Students
Dietetic Internship Special Thanks Award	2012	Dietetic Graduating Interns Award University of Wisconsin Hospital and Clinics
Dean's Teaching Award	2012	For excellence in teaching, curriculum development, and educational leadership. University of Wisconsin, Madison – School of Medicine and Public Health.
Best of Show-Poster	2011	Award for <i>Discharge Status Board</i> poster presentation at UW Health Quality Week 2011: Transitions of Care. University of Wisconsin, Hospital and Clinics
Physician Excellence Award	2011	Rising Star Clinical Excellence (physician of the year). University of Wisconsin – Hospital and Clinics
Clinical Teaching Award	2010	Honor given by medical school students to a chosen faculty whose teaching in Year 4 was exceptional. University of Wisconsin – School of Medicine and Public Health.
Eclipse Award UWHC – Neuro ICU	2010	Recognition of extraordinary leadership and contributions to the development and success of the University of Wisconsin – Hospital and Clinics. Neuro Intensive Care, from patients, family, and staff.
Tong Undergraduate	2009	Best biomedical engineering undergraduate

BME Award.		project award.
UW School of Medicine Poster Scholarship	2008	Excellence in research. University of Wisconsin And Public Health Institute for Clinical and Translational Research-Showcase.
Outstanding Neurosurgery Resident Award	2006	Granted to the resident who has contributed greatest to the education of University of Wisconsin - Medical Students.
Department of Medicine Special Achievement Award	2005	Granted to Faculty / Resident with the greatest contribution to the education of residents and patient care outside the department of internal Medicine.
UWHC Gold Star Award	2004	Excellence in health care award to hospital employees as reported through the Press Ganey Survey
Resident Research Award (two times)	2004 2003	UW neurosurgery resident with best research throughput
Kenneth Shulman Award (two times)	2004 2003	Best paper presented at the annual meeting of the Joint Section on Pediatric Neurological Surgery
Hydrocephalus Award	2002	Best presentation award for hydrocephalus related topic at the AANS / CNS Joint Section on Pediatric Neurosurgery
C.M. Craig Medical Research Fellowship	1996	Granted to top 12 medical student research proposals at University of Illinois
Medical Biochemistry Honors Program	1996	Medical biochemistry thesis
General Assembly Scholarship Recipient (two times)	1996 1995	Academic and community service award
Alpha Sigma Nu	1995	Kinesiology national honors society
ALS High Distinction	1995	Based on senior research project
ALS Highest Honors	1995	Based on cumulative college GPA
ALS Leadership Award	1995	Leadership in university and local endeavors
ALS Research Award	1995	Research award for best research project

University Honors / Bronze Tablet	1995	Awarded to top 3% of graduating class at the University of Illinois
Graduation Senior Speaker	1995	University of Illinois College of Applied Life Studies
Helga Deutsch Award	1995	Academic scholarship
Kinesiology Honors Thesis	1995	Senior research thesis
Kinesiology Senior Honorary	1995	Academic excellence award
Valedictorian Department of Kinesiology	1995	Based on cumulative college GPA
Alpha Epsilon Delta	1994	Pre-medical honors society for academic excellence and community service
ALS Library Award	1994	Awarded to top 3 students in each college at the University of Illinois
Golden Key National Honors Society (two times)	1994 2010	Academic honors society (undergraduate) (graduate school master's degree program)
Phi Kappa Phi	1994	Academic honors society
Phi Eta Sigma	1992	Academic honors society
Alpha Lambda Delta	1992	Academic honors society
Minolta Five Plus Award	1991	Academic scholarship

Professional Associations

The Alliance Leadership in Organ Donation and Transplantation	2017 – 2019
American Heart Association International Stroke Subcommittee	2013 – present
Society of Critical Care Medicine	2013 – present

American Medical Association	2010 – present
Society of Neurological Surgeons Neurocritical Task Force Member	2010 – present
Hydrocephalus Association	2010 – present
Jewish Association for Medical Professionals	2010 – present
Wisconsin American Trauma Society President	2009 – present
Wisconsin American Trauma Society Board of Directors	2009 – present
Wisconsin American Trauma Society President	2009 – present
Neurocritical Care Society Member	2008 – present
Wisconsin Neurological Society Member	2007 – present
American Heart Association Member Section on Stroke Section on Critical Care	2013 – present
Congress of Neurological Surgeons Member	2002 – present
Education Committee	2010 – present
Section on Tumors	2002 – 2008
Section on Trauma and Critical Care	2003 – present
Section on Pediatric Neurosurgery	2010 – present
Trauma Executive Committee	2011 – present
American Association of Neurological Surgeons	2001 – present
Section on Pediatric Neurosurgery	2010 – present
Section on Neurotrauma and Critical Care	2010 – present
Trauma Executive Committee	2011 – present

Leadership and Service

Congress of Neurological Surgeons Meeting Moderator Luncheon Seminar: Neurocritical Care:	2019
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A Multidisciplinary Collaboration

The Alliance Donor Management Summit Moderator Brain Death Plenary Session	2019
The Alliance Donor Meeting Planning Committee	2018
University of Wisconsin Health – Clinical Policy Committee	2018 – present
University of Wisconsin Health – Documentation of Explants within the OR Committee	2018
University of Wisconsin Health – Practitioner Excellence Committee	2018 – present
University of Wisconsin Health – Innovation, Industry Disruption, and Revolution in Health Care Delivery Focus Group for East Campus Development (Chartis Mediated)	2018
University of Wisconsin Hospital – Disclosure and Reporting Unanticipated Clinical Outcomes Committee	2018
University of Wisconsin Medical Foundation – Interactions With Industry Committee	2018 – present
University of Wisconsin Hospital – Value Based Care Committee	2018 – present
University of Wisconsin School of Medicine and Public Health - Transfusion Committee	2017 – present
The Alliance Donor Management Leadership Council	2017 – present
University of Wisconsin School of Medicine and Public Health - Translational Research and Innovation Steering Committee	2017 – present
University of Wisconsin Madison – Conflict of Interest Committee	2017 – present
RSO (Registered Student Organization) Advisor	2017 – present
University of Wisconsin Hospital and Clinics Pressure Ulcer Prevention/Guideline Committee	2017
Neurosurgical Portal Knowledge Base	2017
University of Wisconsin School of Medicine and	2017

Public Health - Operation: Education	
University of Wisconsin School of Medicine and Public Health - Department of Neurosurgery Executive Committee	2016 – present
University of Wisconsin School of Medicine and Public Health - Technology, Entrepreneurship Changing Healthcare	2016 – present
University of Wisconsin Hospital and Clinics Patient Blood Management Committee	2016 – present
University of Wisconsin Hospital and Clinics Dyad Planning Committee	2016 – present
University of Wisconsin Hospital and Clinics ECMO Guideline Committee	2016
University of Wisconsin Hospital and Clinics Improvement of Consult Communication Committee	2016 – 2017
University of Wisconsin Hospital and Clinics Spinal Cord Injury Management Standardization Workgroup	2016 – 2017
University of Wisconsin Hospital and Clinics C. Diff Infection Workgroup	2015 – 2016
University of Wisconsin Hospital and Clinics Therapy Readiness Workgroup	2015 – 2016
Neurocritical Care Society – Workshop Director	2016 – 2018
Neurocritical Care Society – Annual Meeting Planning Committee	2016 – 2018
Neurocritical Care Society – Anticoagulation Reversal Guidelines Committee	2015 – 2016
University of Wisconsin Hospital and Clinics Inpatient Operations Council	2015 – present
University of Wisconsin Hospital and Clinics Cleveland Medical Hackathon	2015
University of Wisconsin Hospital and Clinics Surgical Supply Chain Project	2015 – 2016

University of Wisconsin School of Medicine and Public Health Medical School Admissions Committee	2015 – 2016
University of Wisconsin Hospital and Clinics Adult and Pediatric/Neonatal Blood Transfusion Clinical Guideline Committee	2015 – 2016
University of Wisconsin Hospital and Clinics Critical Care Operations Committee	2014 – present
University of Wisconsin Hospital and Clinics Hospital Acquired Infection Steering Committee	2014 – 2016
University of Wisconsin Hospital and Clinics Comprehensive Stroke Program Endovascular / Endarterectomy Orderset Committee	2014 – 2015
University of Wisconsin Hospital and Clinics Comprehensive Stroke Program Admissions Team	2014 – present
AANS Neurosurgeon Peer Review Editorial Director	2014 – 2017
AANS Neurosurgeon InfoTech Editorial Director	2014 – 2017
University of Wisconsin Discharge Collaborative Committee	2014 – present
University of Wisconsin Cost and Quality Academy	2014 – 2016
NIH/CSR SBIR/STTR Study Section ETTN(10) (NIBIB)	2014 – 2015
American Heart Association Moderator Monitoring Techniques in the Neuroscience ICU	2014
University of Wisconsin Hospital and Clinics Comprehensive Stroke Program Improvement Team	2014 – present
University of Wisconsin Hospital and Clinics Comprehensive Stroke Center Business Committee	2014 – present
American Board of Neurological Surgeons, Extra Mural Subspecialty Item Writing Committee (ABNS Written Board Exam)	2013 – 2017
University of Wisconsin, School of Medicine and Public Health, Director of Neurocritical Care Fellowship UCNS and CAST	2013 – present
University of Wisconsin Hospital and Clinics Value Analysis Executive Oversight Committee	2013 – 2015

University of Wisconsin Hospital and Clinics CCKM Orderset Review Committee	2013 – present
University of Wisconsin Hospital and Clinics Level of Care Committee	2013 – 2014
University of Wisconsin, School of Medicine and Public MOCAL Committee	2013 – 2016
University of Wisconsin Medical Foundation Finance Committee	2013 – 2015
University of Wisconsin Hospital and Clinics Comprehensive Stroke Committee	2012 – present
University of Wisconsin, School of Medicine and Public Health, Director of Neurocritical Care Clerkship	2012 – present
University of Wisconsin, Hospital and Clinics, Medical Staff Board, Nominating Committee	2012 – 2013
University of Wisconsin, School of Medicine and Public Health, IRB Committee	2012 – 2013
University of Wisconsin, Hospital and Clinics, PCC Guideline and Hyponatremia Committee	2012
University of Wisconsin, Hospital and Clinics, Joint Commission Comprehensive Stroke Team	2012 – present
University of Wisconsin, Hospital and Clinics, Technology Assessment Committee.	2012 – present
University of Wisconsin, Hospital and Clinics, Trauma Ops Committee	2012 – present
Advanced Trauma Life Support (ATLS) Instructor	2013 – present
University of Wisconsin, Hospital and Clinics Organ Donation Committee	2012 – present
University of Wisconsin, School of Medicine and Public Health, Neurosurgery Course Director	2012 – 2016
University of Wisconsin, Respiratory Care Department Respiratory Care Committee Protocol Focus Group	2008 – present

University of Wisconsin, School of Medicine and Public Health, the Hartwell Foundation Application Review Committee	2011 – 2015
University of Wisconsin Hospital and Clinics Peer Review Committee	2011 – 2018
University of Wisconsin Hospital and Clinics Medical Board	2011 – 2013
University of Wisconsin – Eligible Provider Meaningful Use Advisory Committee	2011 – present
University of Wisconsin – e-Care Advisory Committee	2011 – present
University of Wisconsin – Hand Hygiene Workgroup	2011 – 2013
University of Wisconsin – Clinical Knowledge Management Council	2010 – present
University of Wisconsin – Clinical Knowledge Management Council – Orderset Subcommittee	2010 – present
University of Wisconsin Interdisciplinary Model of Care 1. Leadership Committee 2. Advisory Committee 3. Administrative Committee	2010 – present
Neurotrauma and Critical Care Executive Committee Congress of Neurological Surgeons	2010 – present
University of Wisconsin- E-Care Clinical Implementation Committee	2010 – present
University of Wisconsin Swallow/Speech Pathology Committee	2010 – 2012
University of Wisconsin – Peer Review Committee	2010 – present
University of Wisconsin – CLABSI Policy Subcommittee	2010 – present
University of Wisconsin – Barb Como Protocol Committee	2010 – 2011
University of Wisconsin – Neuromuscular Agent Protocol Committee	2010 – 2011
University of Wisconsin – Department of Medicine Integrative Neural Systems Underlying Vital	2010

Aerodigestive Tract Functions Program –
Panel Member

University of Wisconsin End-of-Life Committee Chair	2009 – 2010
University of Wisconsin End-of-Life Committee a. Policy b. Guideline	2009 – 2010
University of Wisconsin Vasoactive Continuous Infusions Committee	2009 – 2010
University of Wisconsin Interdisciplinary Model of Care Committee	2009 – present
University of Wisconsin Pharmacy and Therapeutics Committee	2009 – present
University of Wisconsin – EMR Ordersets & Protocols 1. Hypothermia Guideline 2. ECMO Guideline 3. Albumin Guideline 4. Adult Blood Transfusion Guideline 5. Clostridium Difficile Infection Initiative 6. Endocarditis Guideline 7. Stroke Navigator Build Group (Stanford Build Project) 8. Neurology Stroke Orderset Build Group 9. Neurontin based alcohol withdrawal orderset/protocol 10. Enteric ethanol related alcohol withdrawal orderset/protocol 11. Spinal cord injury orderset/protocol 12. Intraparenchymal hemorrhage orderset/protocol 13. Subarachnoid hemorrhage orderset/protocol 14. Nonhemorrhagic neurosurgery stroke orderset/protocol 15. Traumatic brain injury orderset/protocol 16. Electrolyte orderset/protocol 17. Post-craniotomy steroid taper orderset/protocol. 18. End-of-life sustaining measures orderset/protocol 19. Delayed cardiac death donor orderset/protocol a. Ventilator wean/maintenance algorithm b. Vasoactive Algorithm c. Free water/volume/blood correction algorithm d. Blood product correction algorithm 20. Brain death donor orderset/protocol a. Ventilator wean/maintenance algorithm b. Vasoactive Algorithm c. Free water/volume/blood correction algorithm d. Blood product correction algorithm 21. Neuro-storming orderset/protocol	2008 – present

22. Enteral nutrition orderset/protocol	
23. Vasoactive drug protocol	
24. Barbiturate coma protocol	
25. Nitroprusside / Thiosulfate protocol	
University of Wisconsin – Stroke Quality and Regulatory Committee (SQRC)	2015 – present
University of Wisconsin – Inpatient Dyad Initiative	2012 – present
University of Wisconsin – Health Link, Signout/Census (Real-time Process/flow Assessment of Patient Data)	2011 – 2013
University of Wisconsin – Health Link, Discharge Status Board (Real-time Process/flow Metrics & Assessment)	2010 – 2013
University of Wisconsin – Health Link, ICU Process/flow sheet navigator	2008 – present
University of Wisconsin Nutrition Committee	2008 – present
University of Wisconsin Trauma Committee	2008 – 2017
University of Wisconsin Critical Care Committee	2008 – present
University of Wisconsin Capacity Management Committee	2008 – 2016
University of Wisconsin Hospital Quality Assurance Committee	2008 – 2014
Biomedical Engineering Translational Research Clinician Focus Groups	2006 – present
a. BME 301 Extraventricular Drain Valve	
b. BME 301 Multimodality Ventilator	
c. BME 301 Surgical Instrument Autofocusing Microscopy	
d. BME 301 Endoscopic Infusion Pump	
e. BME 201 Transcutaneous Inductive Pressure Monitor	
f. BME 201 Controlled Cervical Spine Rotational Device for fluoroscopic imaging	
University of Wisconsin Performance Improvement Coordination Committee	2005 – 2006
University of Wisconsin Hospital Medical Software Implementation Committee	2005

Computer Assisted Exhibit Attendant – ASNR	2004
Neurosurgery as a Career – University of Wisconsin School of Medicine and Public Health	2004
Think First (Head injury Prevention)	2003 – 2012
RUNN Course Reporter	2002
Career Development Speaker, Deforest H.S.	2002
Tumor Section, Congress of Neurological Surgeons	2002
Sergeant at Arms, Congress of Neurological Surgeons	2002
Member, UW Hospital Quality Assurance Committee	2002 – 2006
Treasurer, UW House Staff Affairs Committee	2000 – 2002
Member, UW House Staff Affairs Committee	1999 – 2006
Panelist, National Youth Leadership Forum	1998
Vice President, University Medical Student Council	1998 – 1999
Treasurer, University Medical Student Council	1997 – 1998
College of Medicine Board of Admissions	1997 – 1999
Interviewer, College of Medicine Board of Admissions	1996 – 1999
Tour Coordinator, College of Medicine	1996 – 1997
Representative, College of Medicine M1 orientation	1996
Coordinator, Medical Student - Chicago Housing Authority Outreach Program	1997
Member, Scouts (Organization for institutionalized children with severe mental and physical disabilities)	1995 – 1999
President, Scouts	1996 – 1997
Co-Founder, Student Humane Society	1995
Editor, Alpha Epsilon Delta Newsletter	1994 – 1995

Medical Assistant, Illini Emergency Medical Service	1993 – 1994
Strong Athletes Against Steroids – Powerlifting Member & Competitor	1991

Local Teaching Experience

UW School of Medicine and Public Health Unanticipated Outcomes Core Day Facilitator	2015, 2016, 2018
UW School of Medicine and Public Health Trauma Case Medium Group Course	2017
UW School of Medicine and Public Health Simulation Center, Neurosurgery Intern Course	2016 – present
Advanced Trauma Life Support (ATLS) Instructor	2012 – present
UW School of Medicine and Public Health Patient, Doctor, Society 3 Course	2009 – 2010
UW Neurocritical Care Multidisciplinary Teaching Rounds	2008 – present
UW Neurocritical Care Multidisciplinary Hands On Didactic Sessions	2008 – 2013
UW Neurocritical Care Multidisciplinary Journal Club	2008 – 2012
UW Biomedical Engineering 201/301	2008 – present
UW Medical Students, Neurosciences Rotation	2002 – present
UW Neurosurgery Medical Student Rotation	2000 – 2002
UW General Surgery Medical Student Rotation	1999 – 2000
Medical Tutor, Urban Health Program, College of Medicine (genetics, microbiology, physiology)	1996 – 1999
Teaching Assistant, General Chemistry	1994
Tutor, Physiology	1994

Online Courses / Webinars

1. **Medow JE.** APP e-Module on *The Treatment of Intracranial Hypertension*. AANS Education Committee. www.aans.org. January 2020.
2. Cooke J, **Medow JE**, Zacko JC. *Cervical Spine Clearance in the Obtunded Patient*. www.aans.org. April 2015.
3. Cooke J, **Medow JE**, Zacko JC. *Penetrating Brain and Spine Injury*. www.aans.org. July 2014.
4. **Medow JE**, Zacko JC. *Providing Value in Neurocritical Care*. American Association of Neurological Surgeons. www.aans.org. July 2013.
5. **Medow JE**, Zacko JC. *ARDS and Head Injury: Management Strategies*. American Association of Neurological Surgeons. www.aans.org. Aug 2013.
6. **Medow JE**, Zacko JC. *Hypertonic Therapy for the Treatment of Elevated Intracranial Pressure*. American Association of Neurological Surgeons. www.aans.org. Sept 2013.
7. **Medow JE**, Zacko JC. *Coagulopathy Reversal Strategies*. American Association of Neurological Surgeons. www.aans.org. Nov 2013.
8. **Medow JE**, Zacko JC. *DVT Prophylaxis in Neurosurgical Patients*. American Association of Neurological Surgeons. www.aans.org. Nov 2013.

Virtual Professor Lectures

- | | |
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| 1. University of Wisconsin School of Medicine and Public Health – <i>Management Strategies of ARDS</i> . | April 9, 2020 |
| 2. University of Wisconsin School of Medicine and Public Health – BMI 773: <i>An Exploration of How and When Machine Learning Can Be a Beneficial Clinical Decision Support Tool to Significantly Improve Quality and Resource Utilization by Adapting to the Individual Patient's Needs</i> | April 22, 2020 |
| 3. University of Wisconsin School of Medicine and | May 21, 2020 |

Public Health – *Fiber Tract Anatomy Using
Diffusion Tensor Imaging with Dissection
Correlates.*

Visiting Professor

- | | |
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| 1. University of Texas Dell Seton Medical Center
Dell School of Medicine
1500 Red River St
Autsin, TX 78701 | March 3, 2020 |
| 2. Penn State Milton S. Hershey Medical Center
500 University Dr
Hershey, PA 17033 | June 23, 2017 |
| 3. University of Chicago / Northshore University
Evanston Hospital Campus.
2650 Ridge Avenue
Evanston, IL 60201 | May 20, 2011 |

National Course Director

- | | |
|------------------------------------------------------------------------------------|----------------------------------------|
| 1. Neurocritical Care Society Annual Meeting
Intracranial Multimodality Session | September 18, 2016
October 10, 2017 |
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National Course / Panelist / Faculty

AANS

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|-----------------------------------------------------------|---------------------------------------------------------------|
| 1. Advances in Neurotrauma Care | April 29, 2013
April 8, 2014
May 3, 2016
May 1, 2018 |
| 2. Advanced Practice Provider Course | September 4, 2014
August 9, 2018 |
| 3. Advanced Practice Provider Plenary Session | April 6, 2014
April 29, 2018 |
| 4. Breakfast Seminar Cerebral Trauma State of
the Art. | April 16, 2011
April 30, 2013 |

	May 3, 2016
5. Monitoring Techniques in the Neuroscience ICU AHA Stroke Meeting	February 12, 2014
6. Practical Clinic Current Treatments and Controversies in Trauma and Neurocritical Care	May 1, 2016
7. Practical Clinic Head Trauma	April 6, 2011 April 28, 2013 April 14, 2016
8. Practical Clinic Neurotrauma Critical Care Review and Update	April 5, 2014 April 29, 2018
9. Practical Clinic Neurotrauma and Neurotrauma Care for the Practicing Provider	April 30, 2016 April 23, 2017 April 29, 2018 April 13, 2019
<i>CNS</i>	
10. Neurocritical Care: A Multidisciplinary Collaboration	October 21, 2019
11. The Essentials of Neurosurgical ICU Management	October 6, 2012
12. Guidelines for Neurocritical Care Management for Patients with Severe Traumatic Brain Injury	October 22, 2013 October 21, 2014
13. Guidelines for Neurocritical Care Management	September 29, 2015 September 27, 2016
14. Neurocritical Care and Neurosurgical Emergencies Update	October 18, 2017
15. Case Based Discussion Session: Challenging Cases in Traumatic Brain Injury	October 8, 2018
16. Luncheon Seminar Neurocritical Care: A Multidisciplinary Collaboration	October 21, 2019
<i>NCS</i>	
17. Neurocritical Care Society Annual Meeting Intracranial Multimodality Session	September 18, 2016 October 10, 2017 September 25, 2018

Other

- | | |
|---------------------------------------------------------------------------------------------------------------------------|-------------------|
| 18. Neurocritical Care Management Strategies
Goodman Campbell Brain and Spine –
Acute Care in Neurotrauma Symposium | October 15, 2015 |
| 19. Organ Donation and Transplant Summit
Protocol Sharing Session | April 25, 2019 |
| 20. Alliance Brain Death Plenary Session | September 5, 2019 |

Thesis Committees*Master Thesis Faculty Advisor*

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|----------------------------------------------------------------------------------------------|-------------|
| 1. Xuan Zhang – Dual Coil ICP Monitor | 2013 – 2016 |
| 2. Deborah Ankowicz – Informed Consent Capstone
Project & Master's Degree | 2012 |
| 3. Elena Bezrukova – <i>Wireless transmission of
Power to an Implantable ICP Device.</i> | 2011 – 2012 |

PhD Thesis Advising Committee

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1. Chenxiao Guan – <i>Algorithm Design for ICP Valve
Actuation</i> | 2018 – present |
| 2. Zhe Yang – <i>Charging and Communications
System for Implanted Devices</i> | 2018 – present |
| 3. Xuan Zhang – <i>Implantable Intracranial Pressure
Sensor to Control Hydrocephalus (ICP
Capacitance Sensor)</i> | 2016 – 2018 |
| 4. Fa Wang – <i>Implantable ICP device</i> | 2014 – 2017 |
| 5. Hung Luyen – <i>Miniaturization of Microwave
Ablation Antennas</i> | 2015 – 2017 |
| 6. Kelli Pointer – <i>Predictive biomarkers in the
investigation into glioblastoma heterogeneity:
collagen and hERG.</i> | 2013 – 2015 |
| 7. Xin Zhou – <i>Multimodality self tuning ventilator</i> | 2011 – 2016 |
| 8. Aadhavi Sridharan – <i>The Effect of Calorie
Restriction on Brain Structure and Function in
Aging Rhesus Monkeys</i> | 2010 – 2012 |
| 9. Earl Zastrow – <i>Development of Tools and
Techniques For Non-Invasive Microwave-Induced
Hyperthermia Treatment of Breast and Brain
Tumors</i> | 2008 – 2010 |

Formal Student Mentorship Program

Doris Duke Charitable Foundation Mentor for Underserved
And Underrepresented High School Students

- Faith Ocoko 2018
- Sai Likhith Mallannagari 2019

Faculty Mentor CHS Track

Raheel Ahmed, MD PhD	(committee chair)	2018 – present
Joseph Roche, MD	(committee chair)	2017 – present
Marin Darsie, MD		2016 – present
Mike Steuerwald, MD		2015 – present

Manuscript Peer Reviewer

Neurosurgical Focus	2017
AANS Neurosurgeon	2014
Journal of Medical Devices: Evidence and Research	2014
Clinical Medicine and Research	2014
Journal of Neurotrauma	2013
BioMedical Engineering Online	2012
Neurosurgery	2012

Guest Editor

Neurosurgical Focus	2017
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Research Experience

Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics Platelet Utilization Calculator	2016 – present
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Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics Plasma Utilization Calculator	2016 – present
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics Blood Utilization Calculator	2016 – present
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>MISTIE III Minimally Invasive Surgery Plus rt-PA for Intracerebral Hemorrhage Evacuation</i>	2014 – 2018
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>High-frequency microwave ablation for targeted, minimally invasive cancer therapy</i>	2013 – 2018
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Radiofrequency Excited Bone Growth Stimulator And Sensor</i>	2012 – 2016
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>The Digital Intern Project</i>	2010 – present
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Unconstrained Lens System Real-time Digital Focus System</i>	2010 – 2013
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Surgical Instrument Autofocus Microscopy</i>	2009 – 2012
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Multimodality Ventilator</i>	2009 – present
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics Neurocritical Care Quality Improvement Measure	2008 – present
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Endoscope Infusion Pump</i>	2008 – 2010

Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Filter Vac – Bone Dust Recovery System</i>	2005 – 2006
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Injected Air Prevention Device</i>	2004 – 2007
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Mannitol vs. 3% Hypertonic Sodium Solution In the Treatment of Elevated ICP</i>	2004 – 2013
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Sodium Nitroprusside for the Treatment of Cerebral Vasospasm</i>	2004 – 2010
Investigator, Departments of Neurosurgery, and Physics, University of Wisconsin Hospital and Clinics <i>Radially Aligned Microwave Surgery</i>	2004 – 2014
Investigator, Departments of Neurosurgery and Pharmacy, University of Wisconsin Hospital and Clinics <i>pH Balanced Hypertonic Sodium Solutions</i>	2004 – 2005
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Porous Proximal Catheter Project</i>	2004 – 2005
Investigator, Department of Neurosurgery, University of Wisconsin Hospital and Clinics <i>Backprojection Limited Anisotropic Construction Kernel (BLACK)</i>	2004 – present
Investigator, Department of Neurosurgery, University of Wisconsin Hospital and Clinics <i>Decay Rate Integrated Voxel Engine (DRIVE CT)</i>	2004 – present
Investigator, Department of Neurosurgery, University of Wisconsin Hospital and Clinics <i>Range Adjusted Dynamic Image Construction Algorithm (RADICAL)</i>	2003 – present
Investigator, Departments of Neurosurgery	2003 – present

University of Wisconsin Hospital and Clinics <i>Transcutaneous Inductive Pressure Monitor</i>	
Investigator, Departments of Neurosurgery and Neuroradiology, University of Wisconsin Hospital and Clinics <i>Spinal Cord Perfusion in the Development of Hydrosyrinx</i>	2003 – 2006
Investigator, Departments of Neurosurgery and Neuroradiology, University of Wisconsin Hospital and Clinics <i>Diffusion Tensor Imaging in Correlative Anatomy</i>	2003 – 2007
Investigator, Departments of Neurosurgery and Neurology, University of Wisconsin Hospital and Clinics <i>Siphon Equilibration Valve</i>	2003 – 2004
Investigator, Departments of Neurosurgery and Neurology, University of Wisconsin Hospital and Clinics <i>Posture Independent Piston Valve</i>	2003 – 2004
Investigator, Departments of Neurosurgery, Medical Physics, and Neuroradiology University of Wisconsin Hospital and Clinics <i>High Definition Computed Topography</i>	2003 – 2004
Investigator, Departments of Neurosurgery, Medical Physics, and Neuroradiology University of Wisconsin Hospital and Clinics <i>Joint Angiographic Cardioperformance Scan</i>	2003 – 2004
Investigator, Departments of Neurosurgery, Medical Physics, and Neuroradiology University of Wisconsin Hospital and Clinics <i>Digital Subtraction Topography</i>	2003 – 2004
Investigator, Departments of Neurosurgery, and Medical Physics, University of Wisconsin Hospital and Clinics <i>RF Heating in MRI</i>	2003 – 2004
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>The Folate Pathway in Neuronal Regeneration</i>	2002 – 2003

Investigator, Department of Neurosurgery and Medical Genetics, University of Wisconsin Hospital and Clinics <i>Adenoviral GAD 65/67 (GABA) purification and production</i>	2002 – 2003
Investigator, Departments of Neurosurgery and Pathology, University of Wisconsin Hospital and Clinics <i>Gross Anatomy of the Human Brain in Dissection</i>	2001 – present
Investigator, Department of Neurosurgery University of Wisconsin Hospital and Clinics <i>Spinal Cord Spasticity Neural Regeneration / Folic Acid Interaction</i>	2001 – 2003
Investigator, Departments of Neurosurgery and Neuroradiology, University of Wisconsin Hospital and Clinics <i>“Quick Brain” MRI in the Evaluation of Shunted Hydrocephalus</i>	2001 – 2004
Investigator, Departments of Neurosurgery and Neuroradiology, University of Wisconsin Hospital and Clinics <i>CSF Flow Patterns Through the Foramen Magnum CT Perfusion of the Spinal Cord</i>	2001 – 2003
Research Assistant, Department of Physiology and Biophysics, University of Illinois at Chicago, College of Medicine <i>Interaction of Tubulin with Ga and the effects on cell signaling in Alzheimer's Disease</i>	1996 – 1997
Honors Research Project, Department of Biochemistry University of Illinois at Chicago College of Medicine <i>Review of literature: I-Cell Disease</i>	1996
Research Assistant, Department of Kinesiology University of Illinois at Urbana – Champaign <i>Neuromuscular Coordination of Muscles in the Upper Extremity</i>	1994 – 1995
Research Assistant, Department of Physiology University of Illinois at Urbana – Champaign <i>Review of Literature: Cushing's Disease</i>	1994

Research Assistant, Department of Chemistry 1993
 University of Illinois at Urbana – Champaign
Extraction of Anti-microbial Compounds from Ink

Grants / Fellowships Awarded

1. WARF/ UW Accelerator COVID-19 Challenge Grant 2020
 Patient Management Tool (Digital Intern) (PI) \$10,000
2. The Batterman Foundation Grant. "Wisconsin 2017 – 2018
 Hydrocephalus Project "(Co-PI) \$431,128.
3. UW Department of Pediatrics Research and 2016
 Development Grant Medow/Hagen (Co-PIs)
 Cardiac Pacemaker Trainer Device. \$8100
4. Madworks Accelerator Program Innovation Grant 2014
 Medow (PI) Digital Intern Project. \$8,000
5. NSF ELECT, PHOTONICS, & MAG DEV 2014 – 2017
 1406090 Bedhad (PI) Medow (Co-PI) Hagness
 (Co-PI) ECCS (Division of Electrical, Communications,
 and Cyber Systems) "High-frequency microwave
 ablation for targeted, minimally invasive cancer
 therapy." \$390,000
6. MISTIE III *Minimally Invasive Surgery Plus rt-PA for* 2014 – 2018
Intracerebral Hemorrhage Evacuation (Local CO-I)
 NIH: 1U01NS080824-01A1
7. National Institutes of Health (NINDS) 2013-2018
 Dempsey (PI), Medow (Co-I), et al
 "UW Regional Coordinating Center (RCC) For Stroke"
 \$1,881,250
 NIH: U10NS086533
8. The Batterman Foundation Grant. "Wisconsin 2013 – 2016
 Hydrocephalus Project "(CO-I) \$406,808.
9. The Hartwell Foundation Grant. "Implantable 2011 – 2014
 Intracranial Pressure Monitor". (PI) \$300,000.
10. The Institute for Clinical and Translational Research 2011 – 2012
 Grant. "MR Spectroscopic Imaging System for
 Stroke Assessment". (CO-I) \$50,000.

11. Medow JE. The Tommy Kuehn Memorial Foundation Grant. "Medical Device Development" (PI) \$2,000. 2011
12. Academic Staff Professional Development Grant Institute for Healthcare Improvement 23rd Annual Meeting. (PI) \$995.00 2011
13. "PROTECT Trial: A Randomized, Double-Blind, Placebo-Controlled Study to Investigate the Efficacy and Safety of Progesterone in Patients with Severe Traumatic Brain Injury". (Local PI) \$125,000 2010 – 2013
14. Coulter Grant for "Multi Nuclear Imaging Coil in MRI" (CO-PI) \$100,000 2009 – 2010
15. C.T.S.A. NIH K12 \$300,000 2007 – 2009
 - 1KL2RR025012-01 Drezner (PI) 9/17/2008 – 7/1/2010 NIH/NCRR Institutional Clinical and Translational Science Award (UW-Madison) (KL2).
16. T.E.A.M. NIH K12 Grant \$50,000 2007
 - K12 RR023268 Carnes (PI) 7/1/2007- 9/16/2007 NIH/NCRR Roadmap K12 Program
17. UW Comprehensive Cancer Center Grant "Non-invasive Microwave Hyperthermia Project" (PI) \$30,000 2005
18. Mueller Foundation Grant "Bone Reclamation project" (PI) \$10,000 2005
19. UW Neurosurgery R&D Grant (x 3) \$1200, \$3000, \$1500 2002,2005,2007
20. CNS Fellowship in Syringomyelia and Chiari \$10,000 2003

Patents Awarded

1. Microwave Hyperthermia System 2015
 Method for Delivering Non-invasive Hyperthermia in Patients.
 Zastrow E, Hagness S, Van Veen B,
Medow JE.
 Awarded July 14, 2015.

United States Patent No. US 9,079,011

2. Method for Suppressing Streak Artifacts in Images Produced with an X-ray Imaging System. **Medow JE**. 2012
Awarded August 28, 2012.

United States Patent No. US 8,244,016

3. Medical Shunt Valve for Regulation of Bodily Fluids **Medow JE**, Luzzio CC. 2011
Awarded May 31, 2011.

United States Patent No. US 7,951,105

Patent Applications

- | | |
|-----------------------------------------------------------|------|
| Computer Controlled Management System for Medical Illness | 2014 |
|-----------------------------------------------------------|------|

Peer Reviewed Journal Publications

1. Connor J, Raife T, Ehlenfeldt BD, Rose A, **Medow JE**. *Electronic Clinical Decision Support to Facilitate a Change in Clinical Practice: Small Details Can Make or Break Success*. Accepted for publication Jun 2020 Transfusion.
2. Wang F, Zhang X, Shokoueinejad M, Iskandar BJ, Webster JG, **Medow JE**. *Spiral Planar Coil Design for the Intracranial Pressure Sensor*. Medical Devices and Sensors. December 2018.
3. Webster JG, Iskandar B, **Medow JE**, Zhang X, Guan C, Yang Z *Chronic intracranial pressure sensor to assist with control of hydrocephalus*. IEEE Sensors Journal / IEEEExplore. November 2018.
4. Moheet A, Livesay S, Abdelhak T, Bleck T, Human T, Karanjia N, Lamer-Rosen A, **Medow JE**, Nyquist P, Rosengart A, Smith W, Torbey M, Chang C. *Standards for Neurologic Critical Care Units: A Statement for Healthcare Professionals from the Neurocritical Care Society*. Neurocrit Care. 2018 Oct;29(2):145-160. doi: 10.1007/s12028-018-0601-1. Erratum in: Neurocrit Care. 2019 May 22;.:PMID: 30251072
5. González-Briceño, **Medow JE**, Ortega S, Lorias D, Minor A, Webster J. *Design and Evaluation of a USB Isolator for Medical Instrumentation*. IEEE Transactions on Instrumentation & Measurement. IEEE

- Transactions on Instrumentation and Measurement. 2018 August. PP. 1-10. 10.1109/TIM.2018.2853319.
6. Baidya NB, van der Kolk AG, **Medow JE**, Hall LT. *Brain Death Scintigraphy Using 99mTc-DTPA: Does Equivocal Cerebral Flow Matter?* Journal of Nuclear Medicine. Submitted March 2018.
 7. Webster JG, Iskandar B, **Medow JE**, Zhang X, Guan C, Yang Z. *Intracranial pressure sensor and valve to control hydrocephalus.* Conf Proc IEEE Eng Med Biol Soc. 2018 Jul;2018:1-7
 8. Connor J, Raife T, Ehlenfeldt BD, Sipsma K, **Medow JE**. *The Blood Utilization Calculator (BUC), a Target-Based Electronic Decision Support Algorithm, Increases the Use of Single Unit Transfusions in a Large Academic Medical Center.* Transfusion. 2018 Jul;58(7):1689-1696. doi: 10.1111/trf.14637. Epub 2018 May 1. PMID: 29717482
 9. Connor J, Raife T, **Medow JE**. *Outcomes of Red Blood Cell Transfusions Prescribed in Organ Donors by the Digital Intern, an Electronic Decision Support Algorithm.* Transfusion. 2018 Feb;58(2):366-371. doi: 10.1111/trf.14424. Epub 2017 Dec 1. PMID: 29194652
 10. Zhang X, **Medow JE**, Iskandar BJ, Wang F, Shokouejinejad M, Koueik J, Webster JG. *Invasive and noninvasive means of measuring intracranial pressure: a review.* Physiological Measurement Vol 38(8). R142-R182 July 2017.
 11. Connor J, Cunningham A, Raife T, Rose W, **Medow JE**. *Standardization of Transfusion Practice in Organ Donors Using the Digital Intern, an Electronic Decision Support Algorithm.* Transfusion 57(6): 1369–1375 June 2017. PMID 28266049
 12. Li Yiping, Parmar Vikas, Dempsey Robert, **Medow JE**. *Traumatic Brain Injury - Management Principles of Raised Intracranial Pressure and the Emergence of Hypertonic Saline.* J Neurol Neurophysiol 6:331. doi: 10.4172/2155-9562.1000331
 13. **Medow JE**, Sanghvi S, Hofmann RM. *Using CRRT Dialysis to Control Intracranial Pressure by Causing Hypernatremia in Renal Failure.* Clinical Medicine and Research. 2015 Jul. Vol 13(2) 89-93. Epub 2014 Dec 8. PMID 25487240.
 14. **Medow JE**, Dierks M, Williams E, Zacko JC. *The Emergent Reversal of Coagulopathies Encountered in Neurosurgery and Neurology: A technical note.* Clinical Medicine and Research. 2015 Mar Vol 13(1) 20-31. Epub 2014 Nov 7. PMID 25380610.
 15. Johnson M, Rocque BG, Kamps T, **Medow JE**. *Reduction of Ventilator Associated Pneumonia in the Neuroscience Intensive Care Unit: A*

- Multimodality Prevention and Testing Protocol. *Journal of Neurosurgical Science* Vol 57, 2013.
16. Witek A, Isaacson L, Rocque BG, Sandoval C, **Medow JE**. Evaluating the Cause and Impact of Caloric Deficits in Neurocritical Care. *Support Line* Vol35 No 4. 23-27. August 2013
 17. **Medow JE**, Bouchard C. *Identifying and Controlling High Medication Costs in the Neuroscience Intensive Care Unit*. AANS Neurosurgeon. 2013 Feb.
 18. Nickele C, Kamps T, **Medow JE**. *Safety of a DVT Chemoprophylaxis Protocol Following Traumatic Brain Injury: A Single Center Quality Improvement Initiative*. *Neurocrit Care*. 2012 Oct. 26 PMID: 23099845.
 19. Bouchard C, Norgaard G, Frey T, Segersten D, Schultz F, Erickson G, Wittwer W, Lues S, **Medow JE**. *Improving the Efficiency of Hospital Discharge by Utilization of the Electronic Medical Record*. *The Journal of the Pharmacy Society of Wisconsin* 2012 May/June; 15(3).
 20. **Medow JE**, Luzzio C. *The Posture Independent Piston Valve: A Novel Valve Mechanism that Actuates Based on ICP Alone. Laboratory Investigation*. *J Neurosurg Pediatr*. 2012 Jan; 9 (1): 64-8. PMID: 22208323.
 21. **Medow JE**, Bouchard C. *Identifying and Controlling Exorbitant Costs in the Neuroscience Intensive Care Unit*. *American Journal of Medical Quality Supplement*. 2011.
 22. O'Horo J, Mak R, **Medow JE**, Safdar N. *Agreement Between the Clinical Pulmonary Infection Score and CDC Criteria for Surveillance of Ventilator-Associated Pneumonia*. *American Journal of Infection Control*. September 2011.
 23. Micic D, Williams E, **Medow JE**. *Cerebellar hemorrhage as a first presentation of acquired Hemophilia A*. *Neurocrit Care*. 2011 Aug; 15 (1): 170-4. PMID 21713596.
 24. Zastrow E, Hagness S, Van Veen B, **Medow JE**, *Time-multiplexed beam forming for non-invasive microwave hyperthermia treatment*. National Science Foundation under grant CMMI 0625054. *IEEE Trans Biomed Eng*. 2011 Jun;58 (6): 1574-84. Epub 2011 Jan. 6 PMID: 21216700.
 25. **Medow JE**, Rocque B, Micic D. *Cost Containment Protocol That Reduces Length of Stay and Improves Outcomes for Neurosurgical Patients*. AANS Neurosurgeon: Peer-reviewed research. Volume 20, Number 3, 2011.
 26. Burfeindt M, Zastrow E, Hagness, Van Veen B, **Medow JE**. *Microwave*

- beamforming for non-invasive patient-specific hyperthermia treatment of pediatric brain cancer.* Phys Med Biol. 2011 May 7; 56 (9): 2743-54. Epub 2011 Apr 5. PMID 21464536.
27. Isaacson L, **Medow JE**. *Multidisciplinary Approach to Nutritional Care in the Neuro ICU.* Medical Nutrition Matters. Nov/Dec. 2010; 30(1):14-17.
 28. Schulz L, Edmund E, Jones K, Vijayan A, Johnson B, **Medow JE**, Vermeulen L. *Stability of Sodium Nitroprusside and Sodium Thiosulfate 1:10 Intravenous Mixture.* Hosp Pharm 2010; 45(10): 779-784. PMID: 21625332.
 29. **Medow JE**, Agrawal B, Baskaya M. *Ischemic Cerebral Edema.* Neurosurgery Quarterly. 2009 Sept Vol 19(3) pp 147-155.
 30. **Medow JE**, Johnson BD. *Continuous Vancomycin Tops Intermittent Infusion for Meningitis.* ASHPVancoPracPearPPN0209. April 1, 2009.
 31. Izci Y, Seckin H, **Medow JE**, Turnquist C, Baskaya MK. *"Sulcal and gyral anatomy of the orbitofrontal cortex in relation to the recurrent artery of Heubner: an anatomical study"* Surg Radiol Anat. 2009 Feb. 4 PMID: 19190845
 32. **Medow JE**, Agrawal BM, Resnick DK. *Polyostotic fibrous dysplasia of the cervical spine: case report and review of the literature.* 2007 Spine J Feb Vol 2 pp. PMID: 17434805
 33. **Medow JE**, Sandin J, Trost GR. *Surgical management of cervical myelopathy: indications and techniques for surgical corpectomy.* Spine J. 2006 Nov-Dec Vol 6 (6 Suppl) pp 233 - 241. PMID: 17097543
 34. Jellison BJ, Field AS, **Medow JE**, Lazar M, Salamat MS, Alexander AL. *Diffusion Tensor Imaging of Cerebral White Matter: Review of Fiber Tract Anatomy and Tumor Imaging Patterns.* AJNR, Mar 2004 Vol 25 pp 356-369. PMID: 15037456
 35. Tolakanahalli R, **Medow JE**, Hsieh J, Chen GH, Mistretta CA. *Reduction of Metal Artifacts Using Subtracted CT Projection Data.* SPIE Press, August 2004.
 36. Iskandar BJ, Sansone J, **Medow JE**, Rowley H. *The Use of "Quick Brain" MRI in the Evaluation of Shunted Hydrocephalus.* J Neurosurg Nov 2004, Vol 101 (2 Suppl) pp 169 - 178. PMID: 1583510
 37. Haughton V, Korosek F, **Medow JE**, Dolar MT, Iskandar B. *Peak systolic CSF velocity in patients with Chiari malformations and in normal subjects.* AJNR, February 2003 Vol 24 pp169-176 (with AJNR cover) PMID 12591629.

38. Carlton LG, **Medow JE**, Ichiyama, R, Christou, E, & Golden, N *Human motor output variability: The generalization of force variability predictive equations*.
39. **Medow JE** *Accuracy of Force Production for Forces Produced by Proximal and Distal Muscles of the Upper Limb*. Honors Thesis Department of Kinesiology Press. University of Illinois, May 14, 1995.
40. Carlton LG, **Medow JE**. *Accuracy of Force Production for Forces Produced by Proximal and Distal Muscles of the Upper Limb*. Journal of Exercise and Sport Psychology, 17, S37. (Supplement). 1995.

Abstracts

1. Connor J, Juckett M, Mattison R, Raife T, **Medow JE**. *The Hematology Blood Utilization Calculator; An Adaptive (Learning) Algorithm for management of the Transfusion Dependent Patient*. American Association of Blood Banks. October 13, 2018.
2. Webster JG, Iskandar B, **Medow JE**, Zhang X, Guan C, Yang Z. *Intracranial pressure sensor and valve to control hydrocephalus*. IEEE Engineering in Medicine and Biology Society. July 17, 2018. Honolulu, HI.
3. Connor J, Raife T, Ehlenfeldt B, Sipsma K, **Medow JE**. *Implementation of a Target Based Red Blood Cell Dose Calculator within the Electronic Medical Record Blood Orders Reduces the Use of Non-Surgical Transfusion in an Academic Medical Center*. AABB Annual Meeting October 7-10, 2017. San Diego, CA.
4. **Medow JE**. *The Digital Intern: An automated tool designed to improve organ donation rates and reduce management variability*. United Network for Organ Sharing Annual Meeting April 4-6, 2016. Indianapolis, IN.
5. **Medow JE**. *The Digital Intern: Maximizing Practice Efficiency in Organ Donation*. Association of Organ Procurement Organizations Annual Meeting June 8-11, 2015. Phoenix, AZ.
6. **Medow JE**. *The Digital Intern: Evaluation of computer controlled algorithms in the neurocritical care unit*. The Neurocritical Care Society Annual Meeting September 11-14, 2014. Seattle WA.
7. **Medow JE**, Endres C, Steffenhagen A. *Controlling Medication Costs in the Neurosciences ICU*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.

8. Stoll E, Atwell J, Schnepf J, **Medow JE**. *A Cost Containment Protocol that Reduces Neurosurgical Patient Length of Stay and Is Associated with Improved Patient Outcomes*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
9. Isaacson L, **Medow JE**. *Nutrition Protocols Improve Care in the Neurosciences ICU*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
10. Kunder T, Frey T, Breihan P, Nickle C, Hunter C, Chesmore P, Tanke W, **Medow JE**. *The Digital Intern Project: Using the Electronic Medical Record to Maximize Practice Efficiency in Organ Donation*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
11. Chesmore P, Alexander A, Marx J, **Medow JE**. *Reducing Catheter-Associated Urinary Tract Infections (CAUTI) in the Neuro ICU*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
12. Frey T, **Medow JE**. *Interactive Health Link Census Designed to Optimize Rapid Patient Chart Review on Rounds and at Sign-out, Facilitates Order Entry Efficiency, and Improves Communication*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
13. Schaefer K, Krupp A, Tanke W, Hunter C, Ehlenbach W, **Medow JE**. *Optimizing Comfort in Critically Ill End of Life Situations*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
14. Murray MA, Blabbaum J, Johnson M, Kohmoto T, Lozonschi L, **Medow JE**. *Risks vs. Benefits of Reversal of Anticoagulation After Intracerebral Hemorrhage in Patients with Ventricular Assist Devices*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
15. Musgrave P, Frey T, Sanderfoot M, Lavrenz D, Segersten D, Butts S, Liegel B, Wittwer W, Lues S, **Medow JE**. *The discharge Status Board: A Communication Tool to Improve Discharge Satisfaction and Efficiency*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
16. Nickle C, **Medow JE**. *Safe Early Deep Venous Thrombosis Chemoprophylaxis in Closed Head Injury*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
17. **Medow JE**. *Quality Improvement Initiatives in Neurocritical Care*. The Congress of Neurological Surgeons Annual Meeting, Chicago, Illinois. October, 2012.
18. **Medow JE**. *Implantable intracranial pressure monitor phase 1 animal trials*. The Hartwell Foundation Annual Meeting. Durham, North Carolina. October 2012.

19. Schmitz M, Ircink J, Flaten A, Kundinger T, Chesmore P, Alexander A, **Medow J**, Safdar N. *Preventing Ventilator-Associated Pneumonia in the Neuroscience Intensive Care Unit: A Multidisciplinary Approach*. Wisconsin State Association for Professionals in Infection Control and Epidemiology Conference. Pewaukee, Wisconsin. May 2012.
20. Isaacson L, Witek A, Rocque B, Sandoval-Garcia C, **Medow JE**. *Caloric Deficits in the Neurosciences ICU*. 2012 University of Wisconsin Hospital and Clinics / University of Wisconsin, Madison School of Nursing Poster Fair. Madison, Wisconsin. April 25, 2012.
21. Isaacson L, Witek A, Rocque B, Sandoval-Garcia C, **Medow JE**. *Caloric Deficits in the Neurosciences ICU*. Wisconsin Dietetic Association Conference. April 2012.
22. Nickele C, **Medow J**. *Using the Electronic Medical Record to Maximize Practice Efficiency: An Example in the Neurosurgery ICU*. American Association of Neurological Surgeons Annual Meeting, Socioeconomic Section Session. Miami, Florida. April 17, 2012.
23. Isaacson L, Witek A, Rocque B, Sandoval-Garcia C, **Medow JE**. *Caloric deficits in the neurosciences ICU*. University of Wisconsin Hospital and Clinics and University of Wisconsin School of Nursing Leadership Forum. December 2011.
24. **Medow JE**. *Identifying and Controlling Costly Medications*. 23rd Annual National Forum on Quality Improvement in Health Care. Orlando, Florida, December, 2011.
25. **Medow JE**. *DVT Chemoprophylaxis in Traumatic Brain Injury*. 23rd Annual National Forum on Quality Improvement in Health Care. Orlando, Florida. December 2011.
26. **Medow JE**. *A Protocol for Providing Quality End-of-Life Care*. 23rd Annual National Forum on Quality Improvement in Health Care. Orlando, Florida. December 2011.
27. **Medow JE**. *Reducing Length of Stay While Improving Outcomes*. 23rd Annual National Forum on Quality Improvement in Health Care. Orlando, Florida. December, 2011.
28. **Medow JE**. *Introduction to the Development and Treatment of Cerebral Aneurysms*. South Central Wisconsin Society Meeting. October 10, 2011. Madison, WI.
29. **Medow JE**. *Implantable Intracranial Pressure Monitor*. The Hartwell Foundation 2011 Annual Meeting. October 4, 2011. Memphis Tennessee.

30. **Medow JE.** *Discharge Status Board.* University of Wisconsin, Hospital and Clinics Health Quality Week 2011: Transitions of Care. October 3 – 7, 2011.
31. **Medow JE.** *Identifying and Controlling Exorbitant Medication Costs in the Neuroscience Intensive Care Unit.* University Health System Annual Conference, Chicago, IL. September 22, 2011.
32. **Medow JE.** Cerebral State-of-the-Art Treatment Seminar. American Association of Neurological Surgeons Annual Meeting, Denver, Colorado. April 13, 2011.
33. **Medow JE,** Hunter C, Chesmore P, Tanke W, Cleary J, Ketzler J. *A Successful Protocol to Provide Comfort During the End of Life Sustaining Measures.* American Association of Neurological Surgery Annual Meeting. April 2011.
34. Nickele CM, **Medow JE,** Kamps TK. *DVT Prophylaxis After Head Trauma: UW QI Experience.* American Association of Neurological Surgery Annual Meeting. April 2011.
35. Rocque B, Sandoval-Garcia C, Isaacson L, Gierach L, Ketzler J, **Medow JE.** *Adequate Nutrition in the Neuroscience ICU: Results of a Quality Improvement Study.* American Association of Neurological Surgery Annual Meeting. April 2011.
36. **Medow JE.** Vermulen L, Johnson B, Angelini G, Zahed C, Baskaya M, Ketzler J. *Identifying and Controlling Exorbitant Medication Costs in the Neuroscience Intensive Care Unit.* Congress of Neurological Surgeons Annual Meeting. October 2010. **Top 10 Abstract.**
37. **Medow JE.** Stoll E, Atwell J, Schnepf J, Angelini G, Zahed C. *A Cost Containment Protocol that Reduces Neurosurgical Patient Length of Stay and is Associated with Improved Patient Outcomes.* Congress of Neurological Surgeons Annual Meeting. October 2010. **Top 10 Abstract.**
38. **Medow JE.** Lemrise A, Safdar N, Angelini G, Zahed C, Baskaya M. *Protocol Driven Ventriculostomy Placement and Management Results in Zero Infections over a 1-Year Period.* Congress of Neurological Surgeons Annual Meeting. October 2010.
39. **Medow JE.** Chesmore P, Safdar N, Zahed C, Angelini G, Ketzler J, Baskaya M. *Significant Reduction in Ventilator Associated Pneumonia Using Multimodality Prevention and Testing.* Congress of Neurological Surgeons Annual Meeting. October 2010.
40. **Medow JE.** Osterby K, Kamps T, Zahed C, Angelini G, Baskaya K, Ketzler J. *Safe Early Deep Venous Thrombosis Chemoprophylaxis in Close Head Injury.* Congress of Neurological Surgeons Annual Meeting.

October 2010.

41. **Medow JE.** Vermulen L, Johnson B, Angelini G, Zahed C, Baskaya M, Ketzler J. *Identifying and Controlling Exorbitant Medication Costs in the Neuroscience Intensive Care Unit.* Neurocritical Care Society Annual Meeting. September 2010.
42. **Medow JE.** *Transcutaneous Inductive Pressure Monitor: Evolution of a Permanently Implanted ICP Development.* Functional Neurosurgery Research Symposium. University of Wisconsin – School of Medicine and Public Health. July 2010.
43. **Medow, JE,** Angelini G, Chesmore P, Johnson B, Isaachson L, Stoll E, Kudinger T, Robbins J, Johnson C, Wenk S. *Favorable Outcomes of Neurologically Ill Patients in a Neurosurgeon Directed Multidisciplinary Neuro Critical Care Unit.* American Association of Neurological Surgeons Annual Meeting. May 2010.
44. Safdar N, **Medow JE,** Mak R, Wood KE. *Using the Clinical Pulmonary Infection Score for Surveillance of Ventilator-associated Pneumonia.* International Conference of Healthcare-Associated Infections. March 2010.
45. **Medow JE,** Fain S, Kupad K. *Rapid Multinuclear Proton, pH, and Na²³ MR Stroke Imaging.* Neurocritical Care Society Annual Meeting. November 2009.
46. **Medow JE,** *Transcutaneous Inductive Intracranial Pressure Monitor: An Implantable Wireless Device for Diagnosing Shunt Malfunction.* American Academy of Neurological Surgery 71st Annual Meeting. November 2009.
47. **Medow JE.** *Transcutaneous inductive monitor: Development of permanently implanted ICP device* Biomedical Engineering Seminar- Department of Biomedical Engineering, University of Wisconsin. February 2009..
48. **Medow JE.** *Transcutaneous Inductive Pressure Monitor.* Neurocritical Care Society Annual Meeting. October 2008.
49. Rizk E, Meier B, Unlu A, Iskandar B, **Medow, JE,** Moftakhar R, Hariharan N. Vemunaganti R, Sun D. *The Na⁺, K⁺ATPase Pump is Essential for Regeneration of the Injured Adult Central Nervous System.* Congress of Neurological Surgeons Annual Meeting. September 2008.
50. **Medow JE.** *Permeable Proximal CSF Shunt Catheter.* University of Wisconsin – School of Medicine and Public Health – Institute for Clinical and Translational Research. April 2008.
51. **Medow JE.** *Transcutaneous Inductive Pressure Monitor: Evolution of a*

- Permanently Implanted ICP Device*. University of Wisconsin – School of Medicine and Public Health – Institute for Clinical and Translational Research. April 2008.
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 53. Boumeester A, Brendel K, Britson M, Finney A, Strohm P, **Medow JE**, Haughton V. *Facilitation of Dynamic Flexion & Extension of the Neck During Fluoroscopy*. University of Wisconsin – Department of Biomedical Engineering Poster Event. December 2007.
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 55. **Medow JE**, Turk A, Baskaya M. *Endovascular and Surgical Treatment of Vertebrobasilar Ectasia*. Boston Scientific Fellows Conference. November 2007.
 56. **Medow JE**. *Transcutaneous Inductive Pressure Monitor: Follow-up Development of a Permanently Implanted ICP Device*. American Association of Neurological Surgeons/Congress of Neurological Surgeons -Section on Pediatric Neurosurgery. November 2007.
 57. Sanghvi S, **Medow JE**, Hoffman RM. *Use of High-Flow Continuous Venovenous Hemofiltration with Citrate Anticoagulation for Maintaining Hyponatremia in a Patient with Acute Brain and Kidney Injury*. Continuous Renal Replacement Therapies Conference. March 2007.
 58. Moftakhar R, Patel N, **Medow JE**, Chan K. *Retrospective Study of 141 Patients With Anterior Microforaminotomy for Cervical Radiculopathy*. American Association of Neurological Surgeons annual meeting. April, 2006.
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 60. Rizk E, Moftakhar R, **Medow JE**, Hariharan N, Iskandar BJ. *Phenytoin Decreases the Ability of the CNS to Repair After Injury*. American Association of Neurological Surgeons / Congress of Neurological Surgeons -Section on Pediatric Neurosurgery. December 2005.
 61. **Medow JE**. *Permeable Proximal Catheter Project*. American Association of Neurological Surgeons Annual Meeting. April 2005. Shulman Lecture.

62. **Medow JE**. *Permeable Proximal Catheter Project*. American Association of Neurological Surgeons / Congress of Neurological Surgeons - Section on Pediatric Neurosurgery. December 2004.
63. **Medow JE**, Turk A, Tolakanahalli R, Mistretta C, Hsieh J. *Digital Subtraction Topography: High Definition CT Angiography that Eliminates Metal Artifact*. American Society of Neuroradiology Annual Meeting. June 2004.
64. Tolakanahalli R, **Medow JE**, Hsieh J, Chen GH, Mistretta CA. *Reduction of Metal Artifacts Using Subtracted CT Projection Data*. SPIE Annual Meeting. August 2004.
65. **Medow JE**, Resnick DK, Iskandar BJ, Rowley H, Haughton V, Field A. *CT Analysis of Spinal Cord Perfusion*. American Association of Neurological Surgeons Annual Meeting. April 2004.
66. **Medow JE**, Luzzio CC. *Posture Independent Piston Valve: A Practical Solution to Maintaining Stable Intracranial Pressure in Shunted Hydrocephalus*. American Association of Neurological Surgeons/Congress Neurological Surgeons Annual Meeting. May 2004. Shulman Lecture.
67. **Medow JE**, Luzzio CC. *Posture Independent Piston Valve: A Practical Solution to Maintaining Stable Intracranial Pressure in Shunted Hydrocephalus*. American Association of Neurological Surgeons/Congress of Neurological Surgeons – Section on Pediatric Neurosurgery. December 2003.
68. Dempsey RJ, Varghese T, Sailor KA, **Medow JE**. *Elastography as a Potential Non-Invasive Measurement of Carotid Plaque Stability*. Neurosurgical Society of America. June 2003.
69. Dempsey RJ, Vemuganti R, Dhodda V, Varghese T, Sailor K, **Medow JE**. *Predicting Carotid Artery Plaque Symptoms*, Neurosurgical Society of America. June 2003.
70. Thiel J, Hughes R, Iskandar B, **Medow JE**, Diamond C, Rowley H. *Fast MR as an Alternative to CT in the Evaluation of Shunted Hydrocephalus*. American Society of Neuroradiology. March 2003.
71. **Medow JE**, Iskandar BJ, Rowley H. *“Quick Brain” MRI in the Evaluation of Shunted Hydrocephalus*. American Association of Neurological Surgeons / Congress of Neurological Surgeons - Section on Pediatric Neurosurgery. December 2002.
72. **Medow JE**, Haughton V, Korosek F, Dolar M, Iskandar B, *Peak Systolic and Diastolic CSF Velocity in the Foramen Magnum of Normal and Chiari I*

- Adult Subjects. Congress of Neurological Surgeons Annual Meeting, September 2002.*
73. Dolar MTV, Haughton VM, Korosec FR, **Medow JE**, Iskandar BJ. *Effect of Suboccipital Craniectomy on CSF Flow Velocity in Patients with Chiari Malformations.* American Society of Neuroradiology Annual Meeting. May 2002.
 74. Haughton V, Dolar M, Korosek F, **Medow JE**, Iskandar B. *Peak Systolic CSF Velocity in Patients with Chiari Malformations and in Normal Subjects.* Nordic Neurological Society Meeting. October 2001
 75. Lapsiwala, S. Rusy, D. **Medow, JE**. Iskandar, B. *Use of intra-operative monitoring in tethered cord release surgery in children.* Congress of Neurological Surgeons Annual Meeting. September 2001.
 76. **Medow JE**, Iskandar BJ. *Cerebellar Astrocytomas.* Caring for Children with Brain Tumors Regional Conference. Madison, Wisconsin, September 2000.
 77. Roychowdhury S, **Medow JE**, Rasenick MM G *Proteins Alpha Subunits Inhibit Microtubule Assembly and Form Polymers In Vitro.* Society for Neuroscience, Chicago Chapter. May 1997.
 78. Roychowdhury S, **Medow JE**, Rasenick MM G *Proteins Alpha Subunits inhibit Microtubule Assembly and Form Polymers in Vitro.* Chicago Signal Transduction Symposium. Chicago, Illinois. May 1997.
 79. Carlton LG, **Medow JE**, *Accuracy of Force Production for Forces Produced by Proximal and Distal Muscles of the Upper Limb.* Conference of the North American Society for the Psychology of Sport and Physical Activity .Pacific Grove, California. June 1995.

Scientific Oratory Presentations

1. Webster JG, Iskandar B, **Medow JE**, Zhang X, Guan C, Yang Z. *Intracranial pressure sensor and valve to control hydrocephalus.* IEEE Engineering in Medicine and Biology Society. July 17, 2018. Honolulu, HI.
2. **Medow JE.** *The Digital Intern: Developing Algorithms to Automate Patient Care in Organ Donation.* Association of Organ Procurement Organizations Annual Meeting June 10, 2015. Phoenix, AZ.
3. **Medow JE**, Hamilton S, Hunter C, Kundinger T, Frey T, Raife T. *The Digital Intern: Evaluation of computer controlled patient management.*

- University of Wisconsin Hospital and Clinics Quality Week. October 16th 2013.
4. **Madow JE**, Frey T. *Interactive Health Link Census: A Design that Optimizes Rapid Patient Chart Review on Rounds and at Sign-Out, Facilitates Order Entry Efficiency, and Improves Communication.* University of Wisconsin Hospital and Clinics Quality Week. October 16th 2013.
 5. **Madow JE**, Musgrave PJ, Frey T, Sanderfoot M, Lavrenz D, Segersten D, Butts S, Liegel B, Wittwer W, Lues S. *The Discharge Status Board: A Communication Tool to Improve Discharge Satisfaction and Efficiency.* University of Wisconsin Hospital and Clinics Quality Week. October 16th 2013.
 6. **Madow JE.** *Quality Improvement Initiatives in Neurocritical Care.* The Congress of Neurological Surgeons Annual Meeting, Chicago, Illinois, October, 2012.
 7. **Madow JE.** *Implantable intracranial pressure monitor phase 1 animal trials.* The Hartwell Foundation Annual Meeting. Durham, North Carolina, October 2012.
 8. Schmitz M, Ircink J, Flaten A, Kundinger T, Chesmore P, Alexander A, **Madow J**, Safdar N. *Preventing Ventilator-Associated Pneumonia in the Neuroscience Intensive Care Unit: A Multidisciplinary Approach.* Wisconsin State Association for Professionals in Infection Control and Epidemiology Conference. Pewaukee, Wisconsin, May 2012.
 9. Nickele C, **Madow J.** *Using the Electronic Medical Record to Maximize Practice Efficiency: An Example in the Neurosurgery ICU.* American Association of Neurological Surgeons Annual Meeting, Socioeconomic Section Session. Miami, Florida, April 17, 2012.
 10. **Madow JE.** *Introduction to the Development and Treatment of Cerebral Aneurysms.* South Central Wisconsin Society Meeting. October 10, 2011, Madison, WI.
 11. **Madow JE.** *Implantable Intracranial Pressure Monitor.* The Hartwell Foundation 2011 Annual Meeting. Memphis Tennessee. October 4, 2011.
 12. **Madow JE.** *Identifying and Controlling Exorbitant Medication Costs in the Neuroscience Intensive Care Unit.* University Health System Annual Conference, Chicago, IL. September 22, 2011.
 13. **Madow JE.** *Cerebral State-of-the-Art Treatment Seminar.* American Association of Neurological Surgeons Annual Meeting, Denver, Colorado. April 13, 2011.

14. Nickele CM, **Medow JE**, Kamps TK. *DVT Prophylaxis After Head Trauma: UW QI Experience*. American Association of Neurological Surgery Annual Meeting. April 2011.
15. Rocque B, Sandoval-Garcia C, Isaacson L, Gierach L, Ketzler J, **Medow JE**. *Adequate Nutrition in the Neuroscience ICU: Results of a Quality Improvement Study*. American Association of Neurological Surgery Annual Meeting. April 2011.
16. **Medow JE**. Vermulen L, Johnson B, Angelini G, Zahed C, Baskaya M, Ketzler J. *Identifying and Controlling Exorbitant Medication Costs in the Neuroscience Intensive Care Unit*. Congress of Neurological Surgeons Annual Meeting. October 2010.
17. **Medow JE**. Stoll E, Atwell J, Schnepf J, Angelini G, Zahed C. *A Cost Containment Protocol that Reduces Neurosurgical Patient Length of Stay and is Associated with Improved Patient Outcomes*. Congress of Neurological Surgeons Annual Meeting. October 2010.
18. **Medow JE**. Lemrise A, Safdar N, Angelini G, Zahed C, Baskaya M. *Protocol Driven Ventriculostomy Placement and Management Results in Zero Infections over a 1-Year Period*. Congress of Neurological Surgeons Annual Meeting. October 2010.
19. **Medow JE**. Vermulen L, Johnson B, Angelini G, Zahed C, Baskaya M, Ketzler J. *Identifying and Controlling Exorbitant Medication Costs in the Neuroscience Intensive Care Unit*. Neurocritical Care Society Annual Meeting. September 2010.
20. **Medow, JE**, Angelini G, Chesmore P, Johnson B, Isaachson L, Stoll E, Kudinger T, Robbins J, Johnson C, Wenk S. *Favorable Outcomes of Neurologically Ill Patients in a Neurosurgeon Directed Multidisciplinary Neuro Critical Care Unit*. American Association of Neurological Surgeons Annual Meeting. May 2010.
21. Rizk E, Meier B, Unlu A, Iskandar B, **Medow, JE**, Moftakhar R, Hariharn N. Vemunaganti R, Sun D. *The Na⁺, K⁺ATPase Pump is Essential for Regeneration of the Injured Adult Central Nervous System*. Congress of Neurological Surgeons Annual Meeting. September 2008.
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24. **Medow JE**, Iskandar BJ. *Transcutaneous Inductive Pressure Monitor: Prototype for a Permanently Implanted ICP Device*. American Association of Neurological Surgeons / Congress of Neurological Surgeons - Section on Pediatric Neurosurgery. December 2005.
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26. **Medow JE**. *Permeable Proximal Catheter Project*. American Association of Neurological Surgeons Annual Meeting. April 2005. Shulman Lecture.
27. **Medow JE**. *Permeable Proximal Catheter Project*. American Association of Neurological Surgeons / Congress of Neurological Surgeons - Section on Pediatric Neurosurgery. December 2004.
28. **Medow JE**, Turk A, Tolakanahalli R, Mistretta C, Hsieh J. *Digital Subtraction Topography: High Definition CT Angiography that Eliminates Metal Artifact*. American Society of Neuroradiology Annual Meeting. June 2004.
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32. Dempsey RJ, Vemuganti R, Dhodda V, Varghese T, Sailor K, **Medow JE**. *Predicting Carotid Artery Plaque Symptoms*, Neurosurgical Society of America. June 2003.
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34. **Medow JE**, Iskandar BJ, Rowley H. *“Quick Brain” MRI in the Evaluation of Shunted Hydrocephalus*. American Association of Neurological

Surgeons / Congress of Neurological Surgeons - Section on Pediatric Neurosurgery. December 2002.

35. Dolar MTV, Haughton VM, Korosek FR, **Medow JE**, Iskandar BJ. *Effect of Suboccipital Craniectomy on CSF Flow Velocity in Patients with Chiari Malformations*. American Society of Neuroradiology Annual Meeting. May 2002.
36. Haughton V, Dolar M, Korosek F, **Medow JE**, Iskandar B. *Peak Systolic CSF Velocity in Patients with Chiari Malformations and in Normal Subjects*. Nordic Neurological Society Meeting. October 2001.

Scientific Poster Presentations

1. Connor J, Raife T, **Medow JE**, Mattison R, Juckett M, Nazeef M, Winkelhake M, Frey T. *The Hematology Blood Utilization Calculator; An Adaptive (Learning) Algorithm for Management of the Transfusion Dependent Patient*. AABB Annual Meeting October 13-16, 2018. Boston, MA.
2. Ocoko F, Rehani P, **Medow JE**. *To What Extent Does Feedback and Machine Learning Actually Work?* Doris Duke High School Student Researcher Program. UW School of Medicine and Public Health. July 17th, 2018.
3. Connor J, Raife T, Ehlenfeldt B, Sipsma K, **Medow JE**. *Implementation of a Target Based Red Blood Cell Dose Calculator within the Electronic Medical Record Blood Orders Reduces the Use of Non-Surgical Transfusion in an Academic Medical Center*. AABB Annual Meeting October 7-10, 2017. San Diego, CA.
4. Chen Q, Bower Z, Von Bergen N, **Medow JE**, Hagen S. *Integrated Rhythm and Pacemaker Simulation System: A Configurable Tool For Real World Training of Healthcare Personnel*. Spring Research Week, Department of Pediatrics, UW School of Medicine and Public Health. May 8-12, 2017
5. Raife T, Lawler D, Grimes R, Lind J, Sipsma Kristen, Vermeulen L, Ehlenfeldt B, Wilson S, Wilke N, Tilson, Z, **Medow JE**. *Blood Utilization Calculator (BUC) Implementation*. UW Health Quality and Safety Week October 10-13th 2016.
6. **Medow JE**. *The Digital Intern: An automated tool designed to improve organ donation rates and reduce management variability*. United Network for Organ Sharing Annual Meeting April 4-6, 2016. Indianapolis, IN.

7. **Medow JE.** *The Digital Intern: Maximizing Practice Efficiency in Organ Donation.* Association of Organ Procurement Organizations Annual Meeting June 8-11, 2015. Phoenix, AZ.
8. **Medow JE,** Hamilton S, Hunter C, Kundering T, Frey T, Raife T. *The Digital Intern: Evaluation of computer controlled patient management.* University of Wisconsin Hospital and Clinics Quality Week. October 12 - 17th 2013.
9. **Medow JE,** Frey T. *Interactive Health Link Census: A Design that Optimizes Rapid Patient Chart Review on Rounds and at Sign-Out, Facilitates Order Entry Efficiency, and Improves Communication.* University of Wisconsin Hospital and Clinics Quality Week. October 12 - 17th 2013.
10. **Medow JE,** Musgrave PJ, Frey T, Sanderfoot M, Lavrenz D, Segersten D, Butts S, Liegel B, Wittwer W, Lues S. *The Discharge Status Board: A Communication Tool to Improve Discharge Satisfaction and Efficiency.* University of Wisconsin Hospital and Clinics Quality Week. October 12 - 17th 2013.
11. **Medow JE,** Brooks NP. *Technology in Neurosurgical Care.* UW Dept of Neurosurgery Research Night. September 5, 2014.
12. Iskandar BJ, Hsu D, Luzzio C, Kraemer M, Webster J, Zhang X, Aloqalaa Z, Hsu M, Bragg T, Medow **JE.** *Building a Smarter CSF Shunt.* UW Dept of Neurosurgery Research Night. September 5, 2014.
13. **Medow JE.** *The Digital Intern: Evaluation of computer controlled algorithms in the neurocritical care unit.* The Neurocritical Care Society Annual Meeting September 11-14, 2014, Seattle Washington.
14. **Medow JE,** Endres C, Steffenhagen A. *Controlling Medication Costs in the Neurosciences ICU.* University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
15. Stoll E, Atwell J, Schnepf J, **Medow JE.** *A Cost Containment Protocol that Reduces Neurosurgical Patient Length of Stay and Is Associated with Improved Patient Outcomes.* University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
16. Isaacson L, **Medow JE.** *Nutrition Protocols Improve Care in the Neurosciences ICU.* University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
17. Kundering T, Frey T, Breihan P, Nickle C, Hunter C, Chesmore P, Tanke W, **Medow JE.** *The Digital Intern Project: Using the Electronic Medical Record to Maximize Practice Efficiency in Organ Donation.* University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.

18. Chesmore P, Alexander A, Marx J, **Medow JE**. *Reducing Catheter-Associated Urinary Tract Infections (CAUTI) in the Neuro ICU*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
19. Frey T, **Medow JE**. *Interactive Health Link Census Designed to Optimize Rapid Patient Chart Review on Rounds and at Sign-out, Facilitates Order Entry Efficiency, and Improves Communication*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
20. Schaefer K, Krupp A, Tanke W, Hunter C, Ehlenbach W, **Medow JE**. *Optimizing Comfort in Critically Ill End of Life Situations*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
21. Murray MA, Blabaum J, Johnson M, Kohmoto T, Lozonschi L, **Medow JE**. *Risks vs. Benefits of Reversal of Anticoagulation After Intracerebral Hemorrhage in Patients with Ventricular Assist Devices*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
22. Musgrave P, Frey T, Sanderfoot M, Lavrenz D, Segersten D, Butts S, Liegel B, Wittwer W, Lues S, **Medow JE**. *The discharge Status Board: A Communication Tool to Improve Discharge Satisfaction and Efficiency*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
23. Nickele C, **Medow JE**. *Safe Early Deep Venous Thrombosis Chemoprophylaxis in Closed Head Injury*. University of Wisconsin Hospital and Clinics Quality Week. October 8th 2013.
24. Schmitz M, Ircink J, Flaten A, Kunding T, Chesmore P, Alexander A, **Medow J**, Safdar N. *Preventing Ventilator-Associated Pneumonia in the Neuroscience Intensive Care Unit: A Multidisciplinary Approach*. Wisconsin State Association for Professionals in Infection Control and Epidemiology Conference. Pewaukee, Wisconsin. May 2012.
25. Isaacson L, Witek A, Rocque B, Sandoval-Garcia C, **Medow JE**. *Caloric Deficits in the Neurosciences ICU*. 2012 University of Wisconsin Hospital and Clinics / University of Wisconsin, Madison School of Nursing Poster Fair. Madison, Wisconsin. April 25, 2012.
26. Isaacson L, Witek A, Rocque B, Sandoval-Garcia C, **Medow JE**. *Caloric Deficits in the Neurosciences ICU*. Wisconsin Dietetic Association Conference, April 2012.
27. Isaacson L, Witek A, Rocque B, Sandoval-Garcia C, **Medow JE**. *Caloric deficits in the neurosciences ICU*. University of Wisconsin Hospital and Clinics and University of Wisconsin School of Nursing Leadership Forum. December 2011.

28. **Medow JE.** *Identifying and Controlling Costly Medications.* 23rd Annual National Forum on Quality Improvement in Health Care. Orlando, Florida. December 2011.
29. **Medow JE.** *DVT Chemoprophylaxis in Traumatic Brain Injury.* 23rd Annual National Forum on Quality Improvement in Health Care. Orlando, Florida. December 2011.
30. **Medow JE.** *A Protocol for Providing Quality End-of-Life Care.* 23rd Annual National Forum on Quality Improvement in Health Care. Orlando. Florida, December 2011.
31. **Medow JE.** *Reducing Length of Stay While Improving Outcomes.* 23rd Annual National Forum on Quality Improvement in Health Care. Orlando, Florida. December, 2011.
32. **Medow JE.** *Discharge Status Board.* University of Wisconsin, Hospital and Clinics Health Quality Week 2011: Transitions of Care. October 3 – 7, 2011. **Best of Show.**
33. **Medow JE,** Hunter C, Chesmore P, Tanke W, Cleary J, Ketzler J. *A Successful Protocol to Provide Comfort During the End of Life Sustaining Measures.* American Association of Neurological Surgery Annual Meeting. April 2011.
34. **Medow JE.** Chesmore P, Safdar N, Zahed C, Angelini G, Ketzler J, Baskaya M. *Significant Reduction in Ventilator Associated Pneumonia Using Multimodality Prevention and Testing.* Congress of Neurological Surgeons Annual Meeting. October 2010.
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- permanently implanted ICP device* Biomedical Engineering Seminar- Department of Biomedical Engineering, University of Wisconsin. February 2009.
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 48. Tolakanahalli R, **Medow JE**, Hsieh J, Chen GH, Mistretta CA. *Reduction of Metal Artifacts Using Subtracted CT Projection Data.* SPIE Annual Meeting. August 2004.
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51. Lapsiwala, S. Rusy, D. **Medow, JE**. Iskandar, B. *Use of intra-operative monitoring in tethered cord release surgery in children*. Congress of Neurological Surgeons Annual Meeting. September 2001.
52. **Medow JE**, Iskandar BJ. *Cerebellar Astrocytomas*. Caring for Children with Brain Tumors Regional Conference. Madison, Wisconsin. September 2000.
53. Roychowdhury S, **Medow JE**, Rasenick MM G *Proteins Alpha Subunits Inhibit Microtubule Assembly and Form Polymers In Vitro*. Society for Neuroscience, Chicago Chapter. May 1997.
54. Roychowdhury S, **Medow JE**, Rasenick MM G *Proteins Alpha Subunits inhibit Microtubule Assembly and Form Polymers in Vitro*. Chicago Signal Transduction Symposium. Chicago, Illinois. May 1997.
55. Carlton LG, **Medow JE**, *Accuracy of Force Production for Forces Produced by Proximal and Distal Muscles of the Upper Limb*. Conference of the North American Society for the Psychology of Sport and Physical Activity. Pacific Grove, California. June 1995.

Editorials

1. **Medow JE**, Darsie M, Tarula E. *Neurocritical Care at the University of Wisconsin*. Currents: The International News Magazine of the Neurocritical Care Society. December, 2017.
2. Hawryluk, GW, Ball, PA, **Medow JE**. *Introduction, Critical Care*. Neurosurgical Focus. November 2017.
3. **Medow JE**. *Waste Not Want Not*. Neurosurgical Focus. November 2017.

Letter to the Editor Publications

1. Zhang X, **Medow JE**, Iskandar BJ, Wang F, Shokouinejad M, Koueik J, Webster JG. *Invasive and noninvasive means of measuring intracranial pressure: a review*. Physiological Measurement. May 2018.

2. **Medow JE**, Luzzio CC. *Posture-independent piston valve: a novel valve mechanism that actuates based on intracranial pressure alone.* J Neurosurg Pediatr. July 2012.
3. Zacko J, **Medow JE**. *How we chose a career in the neurosciences ICU.* AANS Neurosurgeon: Feature. Volume 21, Number 3, 2012. August 2012.
4. **Medow JE**, Luzzio CC. *Posture-independent piston valve: a novel valve mechanism that actuates based on intracranial pressure alone.* J Neurosurg Pediatr. Feb 2013.

Non – Peer Reviewed Publications

1. **Medow JE**. *The Digital Intern Project.* AANS Neurosurgeon: InfoTech Impact Volume 23, Number 2, 2014.
2. **Medow JE**. *HCAHPS Counterpoint Argument to the Use of a Survey With an Ill Defined Purpose.* AANS Neurosurgeon: Counterpoint Volume 24, Number 3, 2015.

Cover Art

1. **Medow JE**. Syllabus Cover Design for ASNR Annual Meeting June 2004.

TV Interviews

1. **Medow JE**. CBS WISC TV. Baby named after doctor who saved mother from stroke. November 16, 2017.
2. **Medow JE**. CBS WISC TV. UW Hospital Neuro ICU Reunion Brings Lives Full Circle. July 28, 2016.
3. **Medow JE**. Big Ten Network *Forward Motion*. October 14, 2012.

Chapters

1. Hanna A, Li Y, **Medow JE**. Neurosurgical Fundamentals Review Questions – Hanna ed, *Neurobiology and Critical Care*. 2018.
2. Hanna A, Li Y, **Medow JE**. Neurosurgical Fundamentals Review Explanations – Hanna ed, *Neurobiology and Critical Care*. 2018.
3. **Medow JE**, Resnick DK. An Anatomic Approach to Minimal Access Spine Surgery, Perez – Cruet ed, *Anatomy of the Spine: An Overview*. 2018.
4. Li Y, Hamilton K, **Medow JE**. Neurotrauma Management for the Severely Injured Polytrauma Patient Ecklund JM and Moores LE. *Evidence Based Review of the Use of Steroids in Neurotrauma*. 2015 (accepted)
5. Iskandar B, Rocque B, **Medow JE**. Principles and Practice of Pediatric Neurosurgery, Albright ed, *Syringomyelia and Hydromyelia*. 2012
6. Regner MF, Baggott CD, Fox BF, **Medow JE**. Neurosurgical Infectious Disease: Surgical and Nonsurgical Management, Hall ed, *Diagnosis and Management of Systemic Infections in the Neurological Intensive Care Unit*. 2012.
7. **Medow JE**, Resnick DK. Neurosurgical Emergencies, Loftus ed, *Intensive Care Management of Spinal Cord Injuries*. 2008.
8. **Medow JE**, Iskandar BJ. Principles and Practice of Pediatric Neurosurgery, Albright ed, *Syringomyelia*. 2007.
9. **Medow JE**, Sandin J. AANS Neurosurgical Operative Atlas, Wolfla ed, *Cervical Corpectomy*. 2007.
10. **Medow JE**, Resnick DK. An Anatomic Approach to Minimal Access Spine Surgery, Perez – Cruet ed, *Anatomical Spine Overview*. 2006.
11. **Medow JE**, Trost GR. AANS Neurosurgical Operative Atlas, Badie ed, *Spinal Schwannoma*. 2006.
12. **Medow JE**, Brooks N, Trost GR. Spinal Instrumentation, Kim ed, *Premier Anterior Cervical Plate*. 2005.
13. **Medow JE**, Resnick DK. UW Trauma Manual, Mann ed, *Introduction to head Trauma*. June 2002 UW Board of Regents.

Key Note Speaker

1. Northern Regional Respiratory Care Conference April 17, 2018

Rochester, MN

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|--------------------------------------------------------------------------------------------------|------------------|
| 2. Goodman Campbell Brain and Spine –
Acute Care in Neurotrauma Symposium
Indianapolis, IN | October 16, 2015 |
| 3. UW Resident Quality Improvement Symposium
Madison, WI | April 17, 2014 |
| 4. AOA Induction Ceremony
Madison, WI | April 12, 2013 |

Invited Lectures

1. **Medow, JE.** Procedure Related Management of Cerebral Aneurysms. Neurocritical Care Nurse Resident Course. UW School of Nursing. Madison, WI. May 12th 2020.
2. **Medow, JE.** *Quality in Neurocritical Care: Management Strategy Nuts and Bolts.* Visiting Professor Neurosurgery & Neurology Departments. UT Austin Austin, TX. March 3rd 2020.
3. **Medow, JE.** *Engineering a Career in Innovation in Medicine.* TECH – The UWSMPH Engineering Interest Group. UW HSLC Rm 2248 Madison, WI. January 14th, 2020
4. **Medow, JE.** *CT Imaging of Traumatic Brain Injury.* Madison Area American Association of Neurological Nurses Conference. Bolz Auditorium Meriter Hospital Madison, WI. August 8th, 2019.
5. **Medow, JE.** *Imaging and Management of Traumatic Brain Injury.* University of Wisconsin Pulmonary Critical Care Lecture Series. August 8th, 2019.
6. **Medow, JE.** *Trauma with CNS Injury.* Dane County ALS Consortium 2018-2019 Continuing Education Biennium. Middleton, WI. July 1st, 2019.
7. **Medow, JE.** *Trauma with CNS Injury.* Dane County ALS Consortium 2018-2019 Continuing Education Biennium. Middleton, WI. July 2nd, 2019.
8. **Medow, JE.** *Neurosurgery as a Career Choice.* Doris Duke Clinical Research Continuum Lecture Series. University of Wisconsin – Madison, WI. June 25th, 2019.

9. **Medow, JE.** *Innovation Strategies for Clinical Donor Management.* Organ Donation and Transplant Summit. Philadelphia, PA. April 25th, 2019.
10. **Medow, JE.** *Protocol Sharing: Pathways for Optimizing Donor Care.* Organ Donation and Transplant Summit. Philadelphia, PA. April 25th, 2019.
11. **Medow, JE.** *Complex Case Management in Neurocritical Care.* American Association of Neurological Surgeons Annual Meeting. San Diego, CA. April 13th, 2019.
12. **Medow, JE, Faucher L.** *Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. March 7th, 2019.
13. **Medow, JE.** *An Exploration of How and When Artificial Intelligence can be a Beneficial Clinical Decision Support Tool to Significantly Improve Quality and Resource Utilization by Adapting to Individual Patients' Needs.* The Alliance National Critical Issues Forum Innovation in Action Meeting Pittsburgh, PA. November 2nd, 2018.
14. **Medow, JE, Faucher L.** *Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. October 25th, 2018.
15. **Medow, JE.** *The Digital Intern: Algorithms for Physicians and Associated Health Professionals.* Upland Hills Hospital Medical Service Meeting, Dodgeville WI. October 22nd, 2018.
16. Merenda A, Berlin T, **Medow JE**, Emanuel B, Ayodele, M. *Intracranial Monitoring Modalities and Placement.* Neurocritical Care Society. Boca Raton, FL. September 25th, 2018.
17. **Medow, JE.** *The Digital Intern: Algorithm Implementation and Workflow.* Upland Hills Hospital Medical Executive Council Meeting, Dodgeville WI. September 14th, 2018.
18. Connor PJ, **Medow, JE.** *Electronic Decision Support of Patient Blood Management.* Wisconsin Association of Blood Banks, Madison WI. September 12th, 2018.
19. **Medow, JE.** *Traumatic Brain Injury: Basic Concepts in Imaging and Management.* Wisconsin Association of Rehabilitation Nurses, Pewaukee WI. September 6th, 2018.
20. **Medow, JE.** *Traumatic Brain Injury: Basic Concepts in Anatomic and Physiologic Correlates.* University of Wisconsin Pulmonary Critical Care Lecture Series. August 14th, 2018.

21. **Medow, JE.** *Critical Care Pharmacology.* AANS Advanced Practice Provider Course, Los Angeles CA. August 9th, 2018.
22. **Medow, JE.** *The Digital Intern: Algorithms, Design, and Capability.* Regional Medical Center, Manchester IA. July 25th, 2018.
23. **Medow, JE.** *Innovation, Entrepreneurship, and Business Development.* University of Wisconsin Dept of Ophthalmology Grand Rounds. Madison, WI July 13th, 2018.
24. **Medow, JE.** *The Digital Intern: Algorithms and Design Philosophy.* Upland Hills Hospital, Dodgeville WI. July 10th, 2018.
25. **Medow, JE.** *Doris Duke Lecture Series: Engineering and Neurosurgery as a Career.* Doris Duke Student Program Lecture. University of Wisconsin Madison, WI. July 9th, 2018.
26. **Medow, JE.** *Quality Improvement in Neurocritical Care: A Nuts and Bolts Approach.* American Association of Neurological Surgeons Annual Meeting. New Orleans, LA. May 1st, 2018.
27. **Medow, JE.** *Advancement in Neurotrauma Care.* American Association of Neurological Surgeons Annual Meeting. New Orleans, LA. May 1st, 2018.
28. **Medow, JE.** *Complex Case Management in Neurocritical Care.* American Association of Neurological Surgeons Annual Meeting. New Orleans, LA. April 29, 2018.
29. **Medow, JE.** *Neurosurgery as a Career.* Verona Area High School Career Days. Verona, WI. April 18, 2018.
30. **Medow, JE.** *Complex Case Management in Neurocritical Care.* Northern Regional Respiratory Care Conference. Rochester, MN. April 17, 2018.
31. **Medow, JE, Faucher L.** *Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. March 1, 2018.
32. **Medow, JE.** *Cerebral Edema, Herniation, Compression, and Hydrocephalus.* University of Wisconsin Clinical Documentation Seminar. December 13th, 2017.
33. **Medow, JE.** *The Digital Intern: Development of a Complex Real-Time Medical Management Decision Support Tool.* University of Wisconsin Computation and Informatics in Biology and Medicine Seminar. November 21st, 2017.
34. **Medow, JE.** *Career Paths 101: Tenure Track Integrating Science, Service, and Education.* University of Wisconsin Planning for Promotion Fall Seminar. November 10th, 2017.

35. **Medow, JE.** *Neurocritical Care Prophylaxis.* Wisconsin Neurological Society Annual Meeting. Elkhart Lake, WI. October 28, 2017.
36. **Medow, JE.** *Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. October 26, 2017.
37. **Medow, JE.** *Intracranial Monitoring Modalities and Placement.* Neurocritical Care Society. Kona, HI. October 10th, 2017.
38. **Medow, JE.** *Seizures and Status Epilepticus.* Congress of Neurological Surgeons Annual Meeting. Boston, MA. October 8th, 2017.
39. **Medow, JE.** *ICP / Valve Smart Shunt Project.* University of Wisconsin Dept of Neurosurgery Research Day. October 3rd, 2017.
40. **Medow, JE.** *Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. September 26, 2017.
41. **Medow, JE.** Faucher L. *Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. August 17, 2017.
42. **Medow, JE.** *Bench to Bedside B2B Tech Forum Key Note Address.* University of Wisconsin School of Medicine and Public Health. August 23, 2017.
43. **Medow, JE.** *Complex Case Management.* UW Critical Care Lecture Series. August 1st 2017.
44. **Medow, JE.** *Neurosurgery as a Career: Front to Back and Everything in Between.* Doris Duke Student Symposium. Wisconsin Institutes for Medical Research. July 17, 2017.
45. **Medow, JE.** *Automating Realtime Decision Support from the Electronic Medical Record.* Visiting Professor Program Penn State Milton S. Hershey Medical Center. June 23, 2017.
46. **Medow, JE.** *Biomedical Engineering of Hydrocephalus Diagnostics and Therapeutics.* Wisconsin Hydrocephalus Conference. June 17th, 2017.
47. **Medow, JE.** *Complex Case Management.* American Association of Neurological Surgeons Annual Meeting. Chicago, IL. April 23, 2017.
48. **Medow, JE,** Tevis, S. *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. April 13, 2017.

49. **Medow, JE**, Tevis, S, Faucher, L. *Approaches to Nurse-Physician Communication*. University of Wisconsin School of Nursing – Nurse Residents Lecture. March 2, 2017.
50. **Medow, JE**. *Development and Implementation of the Digital Intern*. University of Wisconsin School of Medicine and Public Health UW TECH Talk. January 11, 2017.
51. **Medow, JE**. *Building an Idea. Development and Scaling for implementation*. University of Wisconsin Dept of Neurosurgery Research Day. November 10, 2016.
52. **Medow, JE**. *Approaches to Nurse-Physician Communication*. University of Wisconsin School of Nursing – Nurse Residents Lecture. October 27, 2016.
53. **Medow, JE**. *Prophylaxis, Preventing Complications in the Neurocritical Care Unit*. Congress of Neurological Surgeons Annual Meeting. San Diego, CA. September 27, 2016.
54. **Medow, JE**, Faucher L. *Approaches to Nurse-Physician Communication*. University of Wisconsin School of Nursing – Nurse Residents Lecture. September 22, 2016.
55. **Medow, JE**, Emanuel, B. *Intracranial Monitoring Modalities and Placement*. Neurocritical Care Society. National Harbor, MD. September 18, 2016.
56. **Medow, JE**. *The Bionic Neurocritical Care Patient: ECMO Function and Application in Neurocritical Care Patients*. Neurocritical Care Society. National Harbor, MD. September 18, 2016.
57. **Medow, JE**, Faucher L. *Approaches to Nurse-Physician Communication*. University of Wisconsin School of Nursing – Nurse Residents Lecture. August 18, 2016.
58. **Medow JE**. *Understanding the Management of Cerebral Aneurysms*. University of Wisconsin – Hospital and Clinics Neuroscience Nursing Stroke Review Core Day. July 28, 2016.
59. **Medow JE**. *Providing Value Based Neurocritical Care*. University of Wisconsin – Hospital and Clinics Critical Care Lecture Series. July 21, 2016.
60. **Medow JE**, Schnittke N, Kraut A, Ford C. *Ask the Expert: Clinical Cases in Neurotrauma Management*. University of Wisconsin – Hospital and Clinics Department of Emergency Medicine Didactic Series. July 21, 2016.

61. **Medow, JE.** *Imaging of Traumatic Brain Injury.* 48th Annual Emergency Care and Trauma Symposium. Wisconsin Dells, WI. June 20th, 2016.
62. **Medow, JE.** *Neurosurgical Adventures: Management of a Train Wreck.* 48th Annual Emergency Care and Trauma Symposium. Wisconsin Dells, WI. June 20th, 2016.
63. **Medow, JE.** *Complex Case Management in Neurological Emergencies.* Surgical Critical Care Series. University of Wisconsin Trauma Surgery Division. May 31st, 2016.
64. **Medow, JE,** Galgon, R. *The Digital Intern: Review of Application Design and Implementation Considerations.* US Food and Drug Administration Silver Spring, MD. May 23rd, 2016.
65. **Medow, JE.** *ARDS in the Setting of Severe Traumatic Brain Injury.* American Association of Neurological Surgeons Annual Meeting. Chicago, IL. April 30th, 2016.
66. **Medow, JE.** *Coagulopathy Reversal Strategies.* American Association of Neurological Surgeons Annual Meeting. Chicago, IL. April 30th, 2016.
67. **Medow, JE.** *DVT and VTE Prophylaxis in Traumatic Brain Injury.* American Association of Neurological Surgeons Annual Meeting. Chicago, IL. April 30th, 2016.
68. **Medow, JE.** *Complex Critical Care Case Management.* American Association of Neurological Surgeons Annual Meeting. Chicago, IL. April 30th, 2015.
69. **Medow, JE,** Faucher L. *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. April 28th, 2016.
70. **Medow, JE.** *The Digital Intern: Complex Case Management Algorithms to Assist the Organ Procurement Coordinator.* Southwest Transplant Alliance. Dallas, Tx. April 26, 2016.
71. **Medow, JE.** *Procedural Related Management of Intracranial Aneurysms.* South Central Wisconsin Ultrasound Society, March 14, 2016.
72. **Medow, JE,** Faucher L. *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. March 3rd, 2016.
73. **Medow, JE,** Dempsey RJ, Brooks NP. *Neurosurgery Resources and Capabilities.* University of Wisconsin / Bellin Healthcare Lecture. February 26, 2016.

74. **Medow JE.** *Epidemiology and Medical Management of Subarachnoid Hemorrhage.* University of Wisconsin – Hospital and Clinics Advanced Radiation Technologists Lecture Series. December 24, 2015
75. **Medow JE.** *Autonomic Dysreflexia and Neurostorming.* University of Wisconsin – Hospital and Clinics Advanced Palliative Lecture Series. December 7, 2015
76. **Medow JE.** *Medical Innovation: A Primer for the Clinician and Researcher.* University of Wisconsin – Hospital and Clinics Department of Neurosurgery Research Symposium. November 19, 2015.
77. **Medow JE.** *Quality Improvement Initiatives in Neurosurgery.* University of Wisconsin – Hospital and Clinics. November 13, 2015.
78. **Medow JE.** *Anatomy and Imaging of Traumatic Brain Injury.* University of Wisconsin – Hospital and Clinics. Nursing Education. November 11, 2015.
79. **Medow, JE.** *Quality Improvement in Neurocritical Care.* Goodman Campbell Brain and Spine – Acute Care in Neurotrauma Symposium October 16, 2015.
80. **Medow JE.** *Guidelines for Neurocritical Care Management – Complex Pulmonary Physiology and its Impact on Brain Parameter Management.* Congress of Neurological Surgeons Annual Meeting. New Orleans LA. September 29, 2015.
81. **Medow, JE,** Carter J. Doc Talk: iVMD and product development of the Digital Intern. Madison, WI September 10, 2015.
82. **Medow, JE,** Faucher L. *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. August 20, 2015.
83. **Medow, JE.** *Managing Intracranial Pressure on the Basis of Basic Human Physiology and Anatomy.* UW Critical Care Medicine Lecture Series. August 18, 2015.
84. **Medow, JE.** *Managing a Train Wreck in the Emergency Department.* St. Agnes Emergency Department Grand Rounds, Fond du Lac WI. August 7, 2015.
85. **Medow, JE.** *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. July 9, 2015.
86. **Medow JE.** *AVM and Aneurysm Related Stroke.* 47th Annual Emergency Care and Trauma Symposium Wisconsin Dells, WI. June 23rd, 2015.
87. **Medow JE.** *CT Anatomy and Imaging of Traumatic Brain Injury.* University

of Wisconsin – Hospital and Clinics. Nursing Education. May 13th, 2015.

88. **Medow JE.** *Cerebral Trauma State-of-the-Art: Update on Coagulopathy Management.* American Association of Neurological Surgeons Annual Meeting. Washington, DC. May 4, 2015.
89. **Medow JE.** *Cerebral Trauma State-of-the-Art: Update on the Use of Hypertonic Sodium Solutions.* American Association of Neurological Surgeons Annual Meeting. Washington, DC. May 4, 2015.
90. **Medow JE.** *Neurotrauma Critical Care Review and Update for the Practicing Neurosurgeon: Ethics of Life Sustaining Measures “When is Enough Enough?”* American Association of Neurological Surgeons Annual Meeting, Practical Course. Washington, DC. May 3, 2015.
91. **Medow JE.** *Head Trauma Current Treatment and Controversies: Overview of the Evidence Basis for DVT/VTE Prophylaxis in TBI.* American Association of Neurological Surgeons Annual Meeting, Practical Course. Washington, DC. May 2, 2015.
92. **Medow, JE, Faucher L.** *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. March 26, 2015.
93. **Medow, JE, Zhou X, Webster J.** *The Development of a Self-Adjusting Multimodality Ventilator.* GE Healthcare Madison, WI. March 12, 2015.
94. **Medow, JE, Faucher L.** *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. February 5, 2015.
95. **Medow, JE.** *The Digital Intern: Automated Software Management of Critically Ill Patients.* Wisconsin Investment Partners. Wisconsin Trade Center Middleton, WI. January 21, 2015.
96. **Medow, JE.** *Providing Value in Neurocritical Care: Lessons Learned.* Cedars Sinai Neuroscience Grand Rounds. Cedars Sinai Hospital Los Angeles, CA . January 13, 2015
97. **Medow JE.** *Intracranial Pressure Management Strategies: Physiology, Pathophysiology, and Treatment Concepts.* South Central Regional Trauma Advisory Council Trauma Care Beyond the ED Conference. Epic Center Verona, WI. December 4, 2014.
98. **Medow JE.** *The Impact of Location with Traumatic Brain Hemorrhage.* Emergency Nursing Conference. Epic Center, Verona, WI. November 12, 2014.
99. **Medow JE.** *Complex Case Management in Neurocritical Care and*

- Neurosurgery*. Congress of Neurological Surgeons. Boston, MA. October 21, 2014.
100. **Medow JE.** *CT Anatomy and Imaging of Traumatic Brain Injury*. University of Wisconsin – Hospital and Clinics. Nursing Education. October 17th, 2014.
 101. **Medow JE,** Fox A, Larson J. *Dissecting Surgery*. WMS Pre Med Conference. University of Wisconsin – Madison. 168 Noland Hall October 15th 2014.
 102. **Medow, JE.** *Examples of Providing Value in Critical Care*. University of Wisconsin Hospital and Clinics Quality Week. October 15th 2014.
 103. **Medow, JE.** *Neurocritical Care Quality Improvement Pearls*. St. Vincent's Neuroscience Grand Rounds. St Vincent's Hospital Green Bay, WI. September 12, 2014.
 104. **Medow, JE.** *The Anatomy of Traumatic Brain Injury*. St. Vincent's Neuroscience Grand Rounds September 12, 2014.
 105. **Medow, JE.** *Comprehensive Reversal Strategies for Coagulopathies*. AANS / CNS Practical Course. Las Vegas NV. September 4, 2014.
 106. **Medow, JE.** *The Neurocritical Care Unit – An Opportunity to Directly Improve Care*. AANS / CNS Practical Course. Las Vegas NV. September 4, 2014.
 107. **Medow, JE.** *Complex Algorithm Management For End of Life Care*. AANS / CNS Practical Course. Las Vegas NV. September 4, 2014.
 108. **Medow, JE.** *Procedure and Critical Care Related Management of Cerebral Aneurysms*. University of Wisconsin Critical Care Lecture Series. August 26, 2014.
 109. **Medow, JE,** Faucher L. *Approaches to Nurse-Physician Communication*. University of Wisconsin School of Nursing – Nurse Residents Lecture. August 21, 2014.
 110. **Medow, JE.** *Approaches to Nurse-Physician Communication*. University of Wisconsin School of Nursing – Nurse Residents Lecture. July 10, 2014.
 111. **Medow JE.** *Anatomy and Imaging of Traumatic Brain Injury*. University of Wisconsin – Hospital and Clinics. Nursing Education. May 9, 2014.

112. **Medow JE.** *Neurotrauma Critical Care Review and Update for the Practicing Neurosurgeon: Ventilator Management in Traumatic Brain Injury.* American Association of Neurological Surgeons Annual Meeting, Practical Course. San Francisco CA. April 5, 2014.
113. **Medow JE,** Wells J, Krupp A. *Neurotrauma Critical Care and Update: Sedation Guidelines for Critically Ill Patients and Applicability to Neurocritical Care.* American Association of Neurological Surgeons Annual Meeting, Practical Course. San Francisco CA. April 5, 2014.
114. **Medow JE.** *Head Trauma Current Treatment and Controversies: Overview of the Evidence Basis for DVT/VTE Prophylaxis in TBI.* American Association of Neurological Surgeons Annual Meeting, Practical Course. San Francisco CA. April 6, 2014.
115. **Medow JE.** *Advancements in Neurotrauma Care: Reversal of Coagulopathy.* American Association of Neurological Surgeons Annual Meeting. San Francisco CA. April 7, 2014.
116. **Medow JE.** *Cerebral Trauma State-of-the-Art: Update on Coagulopathy Management.* American Association of Neurological Surgeons Annual Meeting. San Francisco CA. April 8, 2014.
117. **Medow, JE.** *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. February 6, 2014.
118. **Medow, JE.** *The Physiologic Basis and Associated Techniques to Optimize Outcomes in Patients With Elevated Intracranial Pressure.* University of Wisconsin Neuroradiology Conference – March 21, 2014.
119. **Medow, JE,** Foucher L, *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. February 6, 2014.
120. **Medow, JE.** *Diagnosis and Management of Cerebral Aneurysms.* University of Wisconsin Department of Neurology Lecture Series. January 7, 2014.
121. **Medow, JE.** *ARDS Management Practice Guidelines and their Applicability to Neurocritical Care.* Congress of Neurological Surgeons. San Francisco CA. October 22, 2013.
122. **Medow JE.** *Engineering a Career in Neurosurgery.* UW Madison Pre-Medical Chapter of the American Medical Student Association Midwest Aspiring Physician's Conference. Madison, WI October 19, 2013.
123. **Medow JE.** *Imaging of Traumatic Brain Injury Anatomy and Indications.* University of Wisconsin – Hospital and Clinics. Nursing

Education. October 16, 2013.

124. **Medow, JE.** *Medicine, Biomedical Engineering, and Interdisciplinary Collaboration: Innovating Without Boundaries.* UWSMPH – Dept of Neurosurgery Research Day. October 15, 2013
125. **Medow, JE.** *Development of the Transcutaneous Objective Measure of Intracranial Pressure Monitor.* The Hartwell Association Annual Meeting. Charlottesville, VA. October 8, 2013.
126. **Medow, JE.** CT Imaging Anatomy of Traumatic Brain Injury. University of Wisconsin Critical Care Lecture Series August 22, 2013.
127. **Medow, JE,** Foucher L, *Approaches to Nurse-Physician Communication.* University of Wisconsin School of Nursing – Nurse Residents Lecture. August 15, 2013.
128. **Medow JE.** *The Physiological Basis for Intracranial Pressure Control.* University of Wisconsin – Hospital and Clinics Dept of Neurology. August 7, 2013.
129. **Medow JE.** *Imaging of Traumatic Brain Injury.* University of Wisconsin – Hospital and Clinics. Nursing Education. July 18, 2013.
130. **Medow JE.** *Management of Elevated Intracranial Pressure.* University of Wisconsin – Hospital and Clinics. Nursing Education. July 18, 2013.
131. **Medow JE.** *Understanding Neurological Emergencies.* University of Wisconsin Hospital Medicine Symposium. June 13, 2013.
132. **Medow JE.** *Head Injury: Imaging and Clinical Correlation.* University of Wisconsin – Hospital and Clinics. Nursing Education. May 15, 2013.
133. **Medow JE.** *Quality Improvement Initiatives in the Neuro Critical Care Unit: The Experience at the University of Wisconsin.* Society for Brain Mapping and Therapeutics. Baltimore, MD. May 12, 2013.
134. **Medow JE.** *Cerebral Trauma State-of-the-Art: Hypertonic Therapy for the Treatment of Elevated Intracranial Pressure.* American Association of Neurological Surgeons Annual Meeting. New Orleans, LA. April 29, 2013.
135. **Medow JE.** *Cerebral Trauma State-of-the-Art: DVT Prophylaxis in Traumatic Brain Injury “Guidelines and a Single Center Quality Improvement Initiative”.* American Association of Neurological Surgeons Annual Meeting. New Orleans, LA. April 29, 2013.

136. **Medow JE.** *Advancements in Neurotrauma Care: Reversal of Coagulopathy.* American Association of Neurological Surgeons Annual Meeting. New Orleans, LA. April 29, 2013.
137. **Medow JE.** *Head Trauma Current Treatment and Controversies: Overview of the Evidence Basis for DVT/VTE Prophylaxis in TBI.* American Association of Neurological Surgeons Annual Meeting, Practical Course. New Orleans, LA. April 28, 2013.
138. **Medow JE.** *Neurotrauma Critical Care and Update: Adult Respiratory Distress Syndrome Management in Traumatic Brain Injury.* American Association of Neurological Surgeons Annual Meeting, Practical Course. New Orleans, LA. April 28, 2013.
139. **Medow JE.** *Optimizing the Organ Donor Using A Protocol Driven Approach Embedded Within the Electronic Medical Record.* The Doug Miller Symposium Wisconsin Dells, WI. April 25, 2013.
140. **Medow JE.** *Imaging Review of Traumatic Brain Injury.* University of Wisconsin – Hospital and Clinics, Critical Care Nursing Lecture. April 3, 2013.
141. **Medow JE.** *Surgical and Medical Management of Subarachnoid Hemorrhage.* University of Wisconsin – Hospital and Clinics, Critical Care Nursing Lecture. April 3, 2013.
142. **Medow JE.** *Management of Elevated Intracranial Pressure.* University of Wisconsin – Hospital and Clinics, Critical Care Nursing Lecture. April 3, 2013.
143. **Medow JE.** *Physician/Nurse Communications.* University of Wisconsin – Hospital and Clinics, Nurse Residency Lecture. March 28, 2013.
144. **Medow JE.** *Physician/Nurse Communications.* University of Wisconsin – Hospital and Clinics, Nurse Residency Lecture. February 7, 2013.
145. **Medow JE.** *Imaging Review of Traumatic Brain Injury.* University of Wisconsin – Hospital and Clinics, Critical Care Nursing Lecture. January 11, 2013.
146. **Medow JE.** *Surgical and Medical Management of Subarachnoid Hemorrhage.* University of Wisconsin – Hospital and Clinics, Critical Care Nursing Lecture. January 11, 2013.
147. **Medow JE.** *Management of Elevated Intracranial Pressure.* University of Wisconsin – Hospital and Clinics, Critical Care Nursing Lecture. January 11, 2013.

148. **Medow JE.** *Healthcare Quality Improvement.* University of Wisconsin – School of Medicine and Public Health, Quality Improvement and Innovation Interest Group. December 3, 2012.
149. **Medow JE.** *The TOMI Monitor: a long-term solution to the measurement of intracranial pressure.* University of Wisconsin – School of Medicine and Public Health, Department of Neurological Surgery Research Day. November 27, 2012.
150. **Medow JE.** *Remote bone growth stimulator and sensor.* University of Wisconsin – School of Medicine and Public Health, Department of Neurological Surgery Research Day. November 27, 2012.
151. **Medow JE.** *Head Injury.* University of Wisconsin – Hospital and Clinics. Nursing Education. October 15, 2012.
152. **Medow JE.** *Neurosurgical Critical Care Management of Fluids & Electrolytes.* The Congress of Neurological Surgeons Annual Meeting, Chicago, Illinois, October 2012.
153. **Medow JE.** *Traumatic Brain Injury: Basic concepts in anatomy and physiological management.* University of Wisconsin – School of Medicine and Public Health, Department of Pulmonary Medicine. July 23, 2012.
154. **Medow JE.** *Head Injury.* University of Wisconsin – Hospital and Clinics, Critical Care Nursing Lecture. April 24, 2012.
155. **Medow JE.** *Overview of the Evidence Basis for DVT/VTE Prophylaxis in TBI.* American Association of Neurological Surgeons Annual Meeting, Practical Course. Miami, Florida, April, 2012.
156. **Medow JE.** *Coagulopathy Reversal Strategies.* Cerebral Trauma State-of-the-Art Treatments Breakfast Seminar Panelist participant. American Association of Neurological Surgeons Annual Meeting. Miami, Florida, April 2012.
157. **Medow JE.** *Hypertonic Sodium Use in the Management of Elevated Intracranial Pressure.* Cerebral Trauma State-of-the-Art Treatments Breakfast Seminar Panelist participant. American Association of Neurological Surgeons Annual Meeting. Miami, Florida, April 2012.
158. **Medow JE, Foley C, McDonald B.** *Innovative interventions in teaching improvement and cost-effective care.* University of Wisconsin, Hospital and Clinics -Graduate Medical Education Program Director's Retreat: The Quality Imperative. February 15, 2012.
159. **Medow JE.** *Nickele C. Physician/Nurse Communications.* University of Wisconsin – Hospital and Clinics, Nurse Residency Lecture.

February 10, 2012.

160. **Medow JE.** *Understanding the Management of Cerebral Edema.* University of Wisconsin, Hospital and Clinics Organ Procurement Organization Grand Rounds. February 1, 2012.
161. **Medow JE.** *Discovering Careers in Health Care and the Life Science.* University of Wisconsin – the Wisconsin Institute for Discovery. University of Wisconsin Undergraduate and Community Members Panel Session Participant. January 30, 2012.
162. **Medow JE.** *DC Status Board.* University of Wisconsin – Hospital and Clinics Nursing Informatics Council presentations. January 24, 2012.
163. **Medow JE.** *Neurosurgery as a Career, Pertinence to Common Medical Problems.* Waunakee High School, Freshman Health Occupations Lecture. Waunakee, Wisconsin, January 3, 2012.
164. **Medow JE, Rocque B.** *Physician/Nurse Communication.* University of Wisconsin – Hospital and Clinics, Nurse Residency Lecture. October 27, 2011.
165. **Medow JE.** *Introduction to Traumatic Brain Injury.* University of Wisconsin – Hospital and Clinics, ICU Nurse Lecture. October 14, 2011.
166. **Medow JE.** *Introduction to the Development and Treatment of Cerebral Aneurysms.* South Central Wisconsin Society Meeting. October 10, 2011, Madison, WI.
167. **Medow JE, Rocque B.** *Physician/Nurse Communication.* University of Wisconsin – Hospital and Clinics, Nurse Residency Lecture. August 18, 2011.
168. **Medow JE, Rocque B.** *Physician/Nurse Communication.* University of Wisconsin – Hospital and Clinics, Nurse Residency Lecture. July 14, 2011.
169. **Medow JE.** *Universal Consent Forms.* University of Wisconsin – School of Medicine and Public Health, Department of Neurological Surgery Grand Rounds. July 6, 2011.
170. **Medow JE.** *ICP Hyperventilation.* North Regional Respiratory Care Conference. Wisconsin Dells, April 28, 2011.
171. **Medow JE.** *Approaches to Adult Coagulopathy Reversal.* University of Wisconsin- School of Medicine and Public Health, Department of Neurological Surgery Grand Rounds. March 30, 2011
172. **Medow JE.** *A Successful Protocol to Provide Comfort during the*

End of Sustaining Measures. University of Wisconsin – School of Medicine and Public Health, Department of Neurological Surgery Grand Rounds. March 30, 2011.

173. **Medow JE.** *A Look at the Anatomy and Physiology of Aneurysmal Subarachnoid Hemorrhage.* University of Wisconsin – Hospital and Clinics. Echo/Vascular Sonographers lecture. December 6, 2010.
174. **Medow JE.** *Transcutaneous Inductive Pressure Monitor: Minimization and Plans for Implantation.* University of Wisconsin – School of Medicine and Public Health, Department of Neurological Surgery Research Day. December 2, 2010.
175. **Medow JE.** *Implantable Intracranial Pressure Monitor.* University of Wisconsin - The Hartwell Foundation Grant Interview Presentation. November 17, 2010.
176. **Medow JE.** *Diagnostic Imaging for Therapists: Nice to Know or Need to Know?* University of Wisconsin – Hospital and Clinics, Physical, Occupational, and Speech Therapists. November 16, 2010.
177. **Medow JE.** *Identifying the Different Types of Traumatic Brain Injury on CT.* University of Wisconsin – Hospital and Clinics, Trauma and Surgery Department -Trauma Conference. November 4, 2010.
178. **Medow JE.** *Providing Value in Neurocritical Care.* University of Wisconsin School of Medicine and Public Health, Institute for Clinical and Translational Research. October 8, 2010.
179. **Medow JE.** *Quality Insurance.* University of Wisconsin Hospital and Clinics, RNs and NAs Lecture. September 9, 2010.
180. **Medow JE, Rocque B.** *Nursing Physician Communication.* University of Wisconsin Hospital and Clinics, Nurse Residency Lecture. August 19, 2010.
181. **Medow JE.** *ICP Monitoring.* University of Wisconsin – School of Medicine and Public Health, Functional Neurosurgery Research Symposium, July 30, 2010.
182. **Medow JE.** *ICP Monitoring.* University of Wisconsin – School of Medicine and Public Health, Neurology Resident Lecture. July 22, 2010.
183. **Medow JE, Rocque B.** *Nursing Physician Communication.* University of Wisconsin Hospital and Clinics, Nurse Residency Lecture. July 8, 2010.
184. **Medow JE, Angelini G, Chesmore P, Johnson B, Isaacson L, Stoll E, Kudinger T, Robbins J, Johnson C, Wenk S.** *Favorable Outcomes of*

- Neurologically Ill Patients in a Neurosurgeon Directed Multidisciplinary Neuro Critical Care Unit.* University of Wisconsin Hospital and Clinics. GI and Hepatology Grand Rounds. June 15, 2010.
185. **Medow, JE** *Critical Care Management of Neuro Patients.* University of Wisconsin Hospital and Clinics. OT, PT, SLP Inservice. May 25, 2010.
 186. **Medow JE, Marvin S.** *Tracheostomies and Swallowing; Do Presence, Size, and Occlusion Matter?* University of Wisconsin Hospital and Clinics. MAD SwIG Meeting. May 13, 2010.
 187. **Medow JE.** *Favorable Outcomes of Neurologically Ill Patients in a Neurosurgeon Directed Multidisciplinary Neuro Critical Care Unit.* University of Wisconsin Hospital and Clinics. Nutritional Staff Meeting. April 27, 2010.
 188. **Medow JE, Isaacson L, Chesmore P.** *Multidisciplinary Management of Critically Ill Patients with Neurological Diseases.* University of Wisconsin Hospital and Clinics, Nutrition Committee Meeting Presentation. April 13, 2010.
 189. **Medow JE, Rocque B.** *Nursing Physician Communication.* University of Wisconsin Hospital and Clinics, Nurse Residency Lecture. February 18, 2010.
 190. **Medow, JE.** *Hydrocephalus.* Pathophysiology Club. University of Wisconsin. February 3, 2010.
 191. **Medow, JE.** *Introduction to the Abdominal Exam.* University of Wisconsin Hospital and Clinics – Nutrition Department. February 2, 2010.
 192. **Medow, JE** *ARDS in Critically Ill Neuro ICU Patients”* University of Wisconsin – Neuro Intensive Care Unit Nursing Retreat, January 19 and 26, 2010.
 193. **Medow, JE.** *Closed Head Injury-Imaging/Clinical Correlates.* University of Wisconsin Hospital and Clinics, Critical Care Nursing Lecture. December 22, 2009.
 194. **Medow JE.** *Stroke Imaging.* Radiology/Stroke Inservice- University of Wisconsin – Hospital and Clinics. December 19, 2009.
 195. Rocque B, **Medow JE.** *Traumatic Brain Injury: Basic Concepts in Anatomy and Management.* 2009 Wisconsin American Trauma Society – Trauma Care Conference, Wausau, WI. November 6, 2009
 196. **Medow, JE, Rocque B.** *Nursing Physician Communication.* University of Wisconsin Hospital and Clinics, Nurse Residency Lecture.

October 22, 2009.

197. **Medow, JE** *Closed Head Injury Basics: Anatomy and Consequences*. University of Wisconsin-Hospital and Clinics, Critical Care Nursing Lecture. September 30, 2009.
198. **Medow, JE**, Rocque B, *Approaches to Nurse-Physician Communication*. University of Wisconsin- School of Nursing – Nurse Residents Lecture. August 13, 2009.
199. **Medow, JE** *Intracranial Pressure Management: Basic Science and Clinical Applications*. University of Wisconsin - Department of Neurology Resident Lecture. August 5, 2009.
200. **Medow, JE** *Critical Care Management of Open and Closed Head Injured Patients: Part I*. University of Wisconsin, School of Medicine and Public Health - Department of Neurology Resident Lecture. July 15, 2009.
201. **Medow JE**, Rocque, B. *Nursing Physician Communication*. University of Wisconsin Hospital and Clinics, Nurse Residency Lecture. July 2, 2009.
202. **Medow, JE** *Introduction to Head Trauma*. Critical Care Nurse Lecture – University of Wisconsin-School of Nursing. April 30, 2009.
203. **Medow, JE** *Why I Love Sodium*. University of Wisconsin, School of Medicine and Public Health – Department of Neurological Surgery Grand Rounds. March 18, 2009.
204. **Medow, JE** *Physiologic Basis of Hypertonic Solutions in Traumatic Brain Injury*. Trauma Conference – University of Wisconsin-School of Nursing. January 8, 2009.
205. **Medow, JE** *Types of Traumatic Brain Injury*. Critical Care Nursing Course, University of Wisconsin –Hospital and Clinics. December 2, 2008.
206. **Medow, JE** *Operative Cerebral Aneurysm*, William S. Middleton Memorial Veterans Hospital, Intensive Care Unit, Nursing Staff Retreat. November 11, 2008
207. **Medow, JE** *Traumatic Brain Injury*. Critical Care Nursing Course, University of Wisconsin – Hospital and Clinics. October 15, 2008.
208. **Medow, JE**. *Procedural Related Management of Intracranial Aneurysms*. University of Wisconsin-Department of Medicine, September 4, 2008.
209. **Medow, JE**. *Traumatic Brain Injury: Basic Concepts in Anatomy*

- and Physiological Management*. University of Wisconsin-Department of Medicine, September 11, 2008.
210. **Medow, JE.** *Neurological Emergencies*. University of Wisconsin - Department of Medicine Critical Care Invited Lecture Series, June 2008.
 211. **Medow, JE.** *Types of Traumatic Brain Injury*. University of Wisconsin - Health Emergency Medical Services Education, May 2008.
 212. **Medow, JE.** *Introduction to Traumatic Brain Injury*. University of Wisconsin-Department of Surgery Trauma Section Lecture Series, March 2008.
 213. **Medow, JE.** *Arteriovenous Malformations of the Spinal Cord*. Department of Neurosurgery Resident Conference, February 2008.
 214. **Medow, JE.** *Cerebral Fiber Tract Anatomy*. University of Wisconsin- Department of Neurosurgery Resident Conference, February 2008.
 215. **Medow, JE.** *Introduction to Cerebral Aneurysms*. University of Wisconsin-Department of Rehabilitation Medicine PT/OT Section, February 2008.
 216. **Medow, JE.** *Cerebral Aneurysms: Anatomy, Diagnosis, and Evidence Based Treatment Options*. American Association of Critical Care Nursing Local Chapter, November 2007.
 217. **Medow, JE.** *Management of Traumatic Brain Injury*. 16th Annual Critical Care Medicine Conference. University of Wisconsin -School of Medicine and Public Health, October 2007.
 218. **Medow, JE.** *Extracranial Stenosis: Evidence Based Pathophysiology, Diagnosis, and Treatment Options*. University of Wisconsin - Department of Radiology, June 2007.
 219. **Medow JE.** *Neurological Emergencies*. University of Wisconsin - Department of Medicine Critical Care Invited Lecture Series, June 2007.
 220. **Medow, JE.** *Cerebral Aneurysms: Evidence Based Treatment Options*. University of Wisconsin - Department of Radiology, May 2007.
 221. **Medow JE, Post MJ.** *Subarachnoid Hemorrhage: Epidemiology, Evaluation, and Treatment*. University of Wisconsin - Respiratory Therapy Division, Grand Rounds. May 2007.
 222. **Medow JE.** *MCA Stroke: Strategies to Prevent Secondary Injury*. University of Wisconsin - Department of Neurology, Invited Lecture Series. April 2007.

223. **Medow, JE.** *Cerebral Aneurysm Pathophysiology, Epidemiology, and Natural History.* University of Wisconsin - Department of Radiology, March 2007.
224. **Medow JE.** *Fiber Tract Anatomy.* University of Wisconsin - Department of Radiation Oncology, December 2006.
225. **Medow JE.** *Management Strategies in Traumatic Brain Injury.* University of Wisconsin-Department of Rehabilitation Medicine PT/OT Section, December 2006.
226. **Medow JE.** *Basic Management of Traumatic Brain Injury.* University of Wisconsin-School of Medicine and Public Health Neurosciences Lecture Series. October 2006.
227. **Medow JE.** *Understanding the Management of Neurosurgical Emergencies Part 2.* University of Wisconsin-Department of Neurology Invited Lecture Series, July 2006
228. **Medow JE.** *Understanding the Management of Neurosurgical Emergencies Part 1.* University of Wisconsin-Department of Neurology Invited Lecture Series, July 2006.
229. **Medow JE.** *Neurological Emergencies.* University of Wisconsin - Department of Medicine Critical Care Invited Lecture Series, June 2006.
230. **Medow JE.** *Imaging Reconstruction in Computed Tomography.* University of Wisconsin, School of Medicine and Public Health – Department of Neurological Surgery Grand Rounds. April 12, 2006.
231. **Medow JE.** *Review of Intracranial and Spinal Trauma.* Plain Township Emergency Medical Services Group, May 2005.
232. **Medow JE.** *Glial Neoplasms – Diagnosis and Treatment Options.* University of Wisconsin-Department of Medicine Combined Tissue Conference, November 2004.
233. **Medow JE.** *Introduction to Spine Trauma,* American Association of Neurosciences Nurses, November 2003.
234. **Medow JE.** *Introduction to Closed Head Injury,* American Association of Neurosciences Nurses, April 2002.
235. **Medow JE.** *Indications, Methods, and Guidelines for Cervical Spine Clearance.* University of Wisconsin-Department of Surgery – Trauma Division, August 22, 2002.