

CURRICULUM VITAE**LISA H. MERCK MD MPH FACEP**

Business Address: Department of Emergency Medicine
 The Warren Alpert Medical School of Brown University
 University Emergency Medicine Foundation
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EDUCATION:

Undergraduate Reed College, Portland, OR (1991-1995)
 Psychology, Bachelor of Arts, 1995

Medical School The Chicago Medical School, North Chicago, IL (1998-2002)
 Medical Doctor, 2002

Other Advanced Degrees Oregon Health and Sciences University, Portland, Oregon (1997-2002)
 Masters of Public Health, Epidemiology and Biostatistics, 2002

COMPLETED POSTGRADUATE TRAINING:

General Surgery Internship PGY I	2002-2003	Duke University Medical Center
Neurosurgery Resident PGY II-III	2002-2005	Duke University Medical Center
Emergency Medicine Residency	2006-2008	University of North Carolina at Chapel Hill

POST GRADUATE HONORS AND AWARDS:

2018 Department of Emergency Medicine Outstanding Investigator Award, 2018. Warren Alpert Medical School of Brown University, Providence, RI.

2018 Acceptance to the Association of American Medical Colleges (AAMC) Mid-Career Women Faculty Leadership Development Seminar, Atlanta, GA 2018.

2018 Certificate of Outstanding Contribution in Reviewing, *American Journal of Emergency Medicine*, in recognition of the contributions made to the quality of the journal.

POST GRADUATE HONORS AND AWARDS (continued):

- 2017 Recipient, Neurocritical Care Society, International Conference, *Top Scored Abstract*, for *Goal Directed Therapy in the ProTECTIII Clinical Trial: The Effect of Physiologic Transgressions on Patient Mortality after Traumatic Brain Injury*. **Lisa H. Merck MD MPH**, Sharon D. Yeatts PhD, Geoff Manley MD PhD, Robert Silbergleit MD, Robin Conwit MD, Qi Pauls MS, Michael Frankel MD, Peter Le Roux MD, Yuko Palesch PhD, David W. Wright MD.
- 2017 Recipient, Neurocritical Care Society, International Conference, *Top Scored Abstract*, for *Goal Directed Therapy in the ProTECTIII Clinical Trial: The Effect of Physiologic Transgressions on Patient Functional Outcome after Traumatic Brain Injury*. **Lisa H. Merck MD MPH**, Sharon D. Yeatts PhD, Geoff Manley MD PhD, Robert Silbergleit MD, Robin Conwit MD, Qi Pauls MS, Michael Frankel MD, Peter Le Roux MD, Yuko Palesch PhD, David W. Wright MD.
- 2015 Recipient, *Translational Impact Award*, Department of Emergency Medicine, The Warren Alpert Medical School of Brown University
- 2015 Barnet Fain Quality Award, Rhode Island Hospital Comprehensive Stroke Center, Honorable Mention
- 2014 Nominated and chosen for the *Clinical Trials Methodology Course Cohort*, via R25 grant NINDS, University of Michigan
- 2013 *Fellow, American College of Emergency Physicians*
- 2011 *Radiation Safety in Imaging, Best Practices in Health Care The Joint Commission Perspectives in Patient Safety*. May 2011, Vol 11, Issue 5 Joint Commission on Accreditation of Health Care Organizations
In reference to work on Informed Consent for Computerized Tomography
- 2011 Recipient, *Clinical and Translational Science Award*, Emory University Research Council
- 2010 Nominated and chosen for enrollment in the *Emory University Junior Faculty Development Course*, Emory University Hospital, Atlanta, Georgia
- 2010 Nominated and chosen to attend the *Navigating the Waters* course, CORD (Council of Emergency Medicine Residency Directors), Orlando, Florida
- 2007 Recipient, *Stroke Mini-Fellowship for Emergency Medicine Residents*. Grant from Novo Nordisk, Protein Design Labs, and Concentric Inc. 5/2007 New York, New York
- 2005 Recipient of educational stipend - *General Surgery/Transplant Surgery Education Fund*, Duke University Medical Center, Durham, North Carolina

- 2001 Recipient of award via *SEARCH Program of Chicago, Illinois: National Health Service Core/Department of Health and Human Services*, stipend awarded for clinical care within an underserved region of Chicago
- 2000 National Award Winner, United States Achievement Academy, Honors for clinical performance

PROFESSIONAL LICENSES AND BOARD CERTIFICATION:

- 2010 – Active License: American Board of Emergency Medicine
- 2012 – Active License: Rhode Island Medical Board
- 2007 – Active License: North Carolina Medical Board
- 2008 – Active License: Georgia Medical Board

ACADEMIC APPOINTMENTS:

- Associate Professor of Emergency Medicine, 2018 – present
Associate Professor of Diagnostic Imaging,
Associate Professor of Neurosurgery,
Alpert Medical School of Brown University
- Director, Division of Emergency Neurosciences and Critical Care Research 2018 – present
Department of Emergency Medicine,
Alpert Medical School of Brown University
- Adjunct Associate Professor of Medicine 2017 – present
Division of Clinical Care Research
Institute for Clinical Research and Health Policy Studies &
Scholar, Tufts Clinical and Translational Science Institute
Tufts University School of Medicine
- Director, Scholarly Concentration – Translational Research in Medicine 2016 – present
Alpert Medical School of Brown University
- Assistant Professor of Emergency Medicine, 2012 – 2018
Assistant Professor of Diagnostic Imaging
Alpert Medical School of Brown University
- Assistant Professor of Neurosurgery 2017 – 2018
Alpert Medical School of Brown University
- Director, Division of Emergency Neurosciences 2015 – 2018
Department of Emergency Medicine, Alpert Medical School of Brown University

Director, Neurological Emergencies Research Program Department of Emergency Medicine, Alpert Medical School of Brown University	2013 – 2015
Assistant Professor of Emergency Medicine, Emory University School of Medicine	2008 – 2012
Core Faculty, Division of Emergency Neurosciences Department of Emergency Medicine, Emory University School of Medicine	2008 – 2012

HOSPITAL APPOINTMENTS:

Attending Physician: Rhode Island Hospital & The Miriam Hospital	2012 – present
Attending Physician: Emory University Hospital, Emory Midtown Hospital, & Grady Memorial Hospital	2008 – 2012

OTHER PROFESSIONAL APPOINTMENTS:

INTERNATIONAL:

2016 – 2019	International Stroke Conference - Abstract Review Committee
2017 –	Brain Oxygen Optimization in Severe Traumatic Brain Injury-Phase 3 Clinical Trial (BOOST-3) – Executive Committee
2015 –	Brain Oxygen Optimization in Severe Traumatic Brain Injury-Phase 3 Clinical Trial (BOOST-3) - Lead, Clinical Standardization Team
2013	Scientific Research Department Brain Foundation of the Netherlands, The Hague - Grant Review
2011 – 2013	International Stroke Conference - Abstract Review Committee

NATIONAL:

2019 –	Neurotrauma Delphi Consensus Panel, National Trauma Research Action Plan (NTRAP) The NTRAP project is supported by a grant from the Department of Defense, managed by the Coalition for National Trauma Research (CNTR).
2019 –	Department of Defense, United States Army Medical Research and Materiel Command, Military Medical Research and Development. (MRMC Combat Casualty Care [CCC]), Scientific Reviewer.
2018 –	Group on Women in Medicine and Science (GWIMS), Association of American Medical Colleges.

- 2018 – National Institutes of Health, National Institute of Neurological Disorders and Stroke (NINDS), Scientific Reviewer, StrokeNet Clinical Trials and Biomarker Studies for Stroke Treatment, Recovery, and Prevention.
- 2018 – Chair, Tufts Clinical and Translational Research Institute, Emergency Medicine Expert Panel
- 2014 – 2019 Society for Academic Emergency Medicine, Ethics Committee
- 2018 – SIREN / NETT Operations Committee
- 2018 Society for Academic Emergency Medicine, National Meeting Abstract Review Committee
- 2018 – Society for Academic Emergency Medicine, Research Committee
- 2018 – BOOST3 Clinical Trial Executive Committee
- 2018 – Lead, Electronic Data Capture Committee, SIREN clinical trials network
- 2017 – National Institutes of Health, National Center for Advancing Translational Sciences (NCATS) - Protocol Review Committee (PRC) for the Trial Innovation Network of the Clinical and Translational Science Award (CTSA) program
- 2017 – Department of Defense, Congressionally Directed Medical Research Programs (CDMRP) - Scientific Reviewer, Combat Casualty Care Research Program (CCCRP)
- 2017 – National Institutes of Health, National Institute of Neurological Disorders and Stroke - External Oversight Board, for the Network for Excellence in Neuroscience Clinical Trials (NeuroNEXT)
- 2017 – Tufts Clinical and Translational Research Institute, Tufts Medical Center - Emergency Medicine Expert Panel
- 2015 – 2016 National Institutes of Health, Department of Health and Human Services - Scientific Reviewer, Health Services Organization and Delivery Study Section (HSOD), Healthcare Delivery and Methodologies Integrated Review Group
- 2015 Department of Defense, Congressionally Directed Medical Research Programs - Scientific Reviewer, Clinical Trials Section
- 2014 – 2015 National Institutes of Health, Department of Health and Human Services - Scientific Reviewer, Health Services Organization and Delivery Study Section (HSOD), Healthcare Delivery and Methodologies Integrated Review Group
- 2009 – ProTECT III - Clinical Standardization Team
- 2015 – 2016 Society for Academic Emergency Medicine, Neurologic Emergency Research Interest Group - Chair
- 2014 – 2015 Society for Academic Emergency Medicine, Neurologic Emergency Research Interest Group - Vice-Chair
- 2014 – 2015 National Task Force, Patient Centered Outcomes Research, Society for Academic Emergency Medicine, Consensus Conference on Diagnostic Imaging in the Emergency Department: A Research Agenda to Optimize Utilization
- 2013 – 2014 Society for Academic Emergency Medicine: Neurological Emergencies Committee, Consensus Conference on Gender Specific Medicine
- 2010 – 2012 Society for Academic Emergency Medicine- Member, Research Committee
- 2011 – Ad-hoc Reviewer , Journal of Neurotrauma, Mary Ann Leibert Inc.
- 2011 – Reviewer, Academic Emergency Medicine, Wiley Blackwell
- 2011 – Reviewer, Annals of Emergency Medicine, Elsevier
- 2011 – Ad-hoc reviewer, West J of Emergency Medicine, Dept of EM, UC Irvine
- 2010 – Society for Academic Emergency Medicine, Neurologic Emergencies Interest Group
- 2009 Society for Academic Emergency Medicine, Task Force: Residents as Researchers
- 2009 Ad-hoc reviewer, Emergency Medicine Reports, AHC Media LLC
- 2010 – Ad-hoc reviewer, Critical Care, BioMed Central
- 2010 – Reviewer, American Journal of Emergency Medicine, Elsevier

HOSPITAL / DEPARTMENTAL COMMITTEES:

2018	Peer review for University Emergency Medicine Foundation, Faculty Academic Development Award (ADA)
2018 –	Department of Emergency Medicine 2% Working Group
2018 –	Department of Emergency Medicine Revenue Enhancement Committee
2017 –	Trauma Committee, Rhode Island Hospital
2014 –	Institutional Review Board, Rhode Island Hospital
2014 –	Rapid Response Team, Institutional Review Board, Rhode Island Hospital
2013 –	Stroke Committee, Rhode Island Hospital
2012 – 2013	Emergency Department MRI Committee, Rhode Island Hospital, Providence, RI
2009 – 2010	Grady Trauma Committee, Grady Memorial Hospital/Emory University, Atlanta, GA
2003 – 2005	Emergency Management Sub-Committee, Duke University Medical Center, Durham, NC

UNIVERSITY COMMITTEES:

2018	Network Capacity Core, the Brown University Clinical and Translational Science Award Application
2018	Revenue Enhancement Team, Department of Emergency Medicine, Alpert Medical School of Brown University, Providence, RI
2017	Director of Pre-Professional Development on the TL-1 Core of the Brown University Clinical and Translational Science Award Application
2016 – 2017	Planning Committee, Clinical and Translational Science Award Application, Clinical Trials Unit, Brown University & Rhode Island Hospital
2015 –	Pediatric Emergency Medicine Research Committee, Alpert Medical School of Brown University, Providence, RI
2012 –	University Emergency Medicine Foundation Research Committee, Alpert Medical School of Brown University, Providence, RI
2012	University Research Council, Review Committee, Emory University, Atlanta, GA
2009 – 2012	Emory University Institutional Review Board, Emory University, Atlanta, GA
2009 – 2012	Emory Center for Injury Control, Emory University, Atlanta, GA
2009 – 2012	Emergency Medicine Wellness Committee, Emory University, Atlanta, GA
2008 – 2012	Emergency Medicine Research Committee, Emory University, Atlanta, GA
2006 – 2007	Resident Quality Council, University of North Carolina, Chapel Hill, NC
2000	Institutional Review Board, The Chicago Medical School, North Chicago, IL
2000	Student Council Constitution Committee, The Chicago Medical School, North Chicago, IL
1999 – 2000	Student Council, The Chicago Medical School, North Chicago, IL
1999 – 2001	President, Clinical Research Interest Group, The Chicago Medical School, North Chicago, IL
1998 – 1999	President, Emergency Medicine Clinical Research Interest Group, The Chicago Medical School, North Chicago, IL
1991 – 1995	Student Chair, Wellness Committee/HIV counseling center development, Reed College, Portland, OR

INDUSTRY CONSULTANT:

2018 – 2019 Shire Development LLC

MEMBERSHIP IN SOCIETIES:

2013 – Neurocritical Care Society
2013 – National Neurotrauma Society
2013 – Society for Neurotrauma, Women in Neurotrauma Research
2012 – Academy of Women in Academic Emergency Medicine
2011 – Image Gently, The Alliance for Radiation Safety in Pediatric Imaging
2008 – American College of Emergency Physicians
2008 – Society for Academic Emergency Medicine
2006 – 2008 Emergency Medicine Resident Association
2006 – 2008 American College of Emergency Physicians, Resident Member

BIBLIOGRAPHY

Original Publications in Peer-reviewed Journals:

1. George, T.M., **Fagan L.H.**, Adult tethered cord syndrome in patients with postrepair myelomeningocele: an evidence-based outcome study. *J. Neurosurgery: Ped* 102:150-156, 2005. PubMed PMID: 16156223.
2. **Fagan LH**, Ferguson S, Yassari R, Frim DM. The Chiari pseudotumor cerebri syndrome: symptom recurrence after decompressive surgery for Chiari malformation type I. *Pediatric Neurosurgery*. 2006;42(1):14-9. PubMed PMID: 16357496.
3. Looney C.B., Smith JK, **Merck L.H.**, Wolfe H.M., Chescheir N.C., Hamer R.M., Gilmore J.H. Intracranial hemorrhage in asymptomatic neonates: prevalence on MR images and relationship to obstetric and neonatal risk factors. *Radiology*. 2007 Feb; 242(2):535-41. PubMed PMID: 17179400.
4. **Merck LH**, Hauck MG, Houry DE, Lowery-North DW, Hemphill RR, Applegate KE. Informed Consent for Computed Tomography. *American Journal of Emergency Medicine*. 2011 Feb;29(2):230-2. Epub 2010 Nov 5. PubMed PMID: 21115314.
5. American College of Surgeons Trauma Quality Improvement Program Guidelines, Traumatic Brain Injury. H. Gill Cryer, MD, FACS, Geoffrey T. Manley, MD, PhD, FACS, P. David Adelson, MD, PhD, FACS, Aziz S. Alali, MD, J. Forrest Calland, MD, FACS, Mark Cipolle, MD PhD, Christopher Cribari MD FACS, Matthew L. Davis, MD, FACS, Mark R. Hemmila, MD, FACS, J. Claude Hemphill, MD, Michael Huang, MD, Randeep Jawa, MD, Todd Kilbaugh, MD, Rosemary Kozar, MD, FACS, Andrew I.R. Maas, MD, PhD, **Lisa H. Merck MD, MPH, FACEP**, Avery B. Nathens, MD, FACS, Claudia Robertson, MD, Phiroz Tarapore, MD, Shelley Timmons, MD, PhD, Jamie Ullman, MD, Alex Valadka,

MD, David W. Wright, MD, FACEP. *Committee on Trauma Expert Panel 1/2015, American College of Surgeons* <https://www.facs.org/~media/files/quality%20programs/trauma/tqip/traumatic%20brain%20injury%20guidelines.ashx>

6. Wright DW, Espinoza TE, **Merck LH**, Ratcliff JR, Backster A, Stein DG. Gender Differences in Neurological Emergencies Part II: A Consensus Summary and Research Agenda on Traumatic Brain Injury. *Academic Emergency Medicine*, published first online, 24 Nov 2014 DOI:10.1111/acem.12535. PubMed PMID: 25420582; PubMed Central PMCID: PMC4311997.
7. David W. Wright, MD, Sharon D. Yeatts, PhD, Robert Silbergleit, MD, Yuko Y. Palesch, PhD, Vicki S. Hertzberg, PhD, Michael Frankel, MD, Harriet Howlett-Smith, RN, Erin M. Bengelink, MA, Geoff Manley, MD, PhD, **Lisa H. Merck, MD MPH**, Scott Janis, PhD, William Barsan, MD. Very Early Administration of Progesterone for Acute Traumatic Brain Injury. *New England Journal of Medicine*, published first online, 12/10/2014 DOI: 10.1056/NEJMoa1404304.
8. Joseph B. Miller, MD, MS, Laura Heitsch, MD, Matthew S. Siket, MD, MS, Jon W. Schrock, MD, Charles R. Wira III, MD, Christopher Lewandowski, MD, Tracy E. Madsen, MD, ScM, **Lisa H. Merck, MD, MPH**, David W. Wright, MD. The 2015 ACEP Clinical Policy on tPA for Stroke: What is Best for Our Patients? Efficacy in the First Three Hours. *Academic Emergency Medicine*, published first online 6/26/15 ISSN 1069-6563 1 doi: 10.1111/acem.12712 PII ISSN 1069-6563583. PubMed PMID: 26113369.
9. Hemal K. Kanzaria MD MSHPM, Aileen McCabe, Zachary Meisel MD MPH MSc, Annie LeBlanc PhD, Jason T. Schaffer MD, M. Fernanda Bellolio MD, William Vaughan, **Lisa H. Merck MD MPH**, Kimberly E. Applegate MD MS, Judd E. Hollander MD¹, Corita R. Grudzen MD MSHS¹, Angela M. Mills MD, Christopher R. Carpenter MD MSc, and Erik P. Hess MD MSc. Advancing Patient-Centered Outcomes in Emergency Diagnostic Imaging: A Research Agenda. *Academic Emergency Medicine*, Volume 22, Issue 12, pages 1435–1446, December 2015, published first online 11/2015 DOI:10.1111/acem.12832 2015. PubMed PMID: 26574729.
10. Amber K. Sabbatini MD, **Lisa H. Merck MD MPH**, Adam Froemming MD, William Vaughan, Michael D. Brown MD MSc, Erik P. Hess MD MSc, Kimberly Applegate MD, Nneka Comfere MD Patient-Centered Communication and Multidisciplinary Care Coordination in Emergency Diagnostic Imaging: A Research Agenda. *Academic Emergency Medicine*, Volume 22, Issue 12, December 2015, Pages: 1427–1434; published first online 11/2015 DOI:10.1111/acem.12832 2015. PubMed PMID: 26575785.
11. **Lisa H. Merck MD MPH**, Laura Ward MSPH, Esther Choo MD MPH, Kimberly Applegate MD MS, Douglas Lowery-North MSPH, Katherine Heilpern MD. Written Informed Consent for Computed Tomography of the Abdomen/Pelvis is Associated with Decreased CT Utilization in Low-Risk Emergency Department Patients. *Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health* (WestJEM), Vol XVI no 7 Dec 2015. <http://escholarship.org/uc/item/7t36f8dt>. PMID: 26759646; PubMed Central PMCID: PMC4703183.
12. Bryan Choi MD MPH, Nicholas Asselin DO, Catherine C Pettit MD, Max Dannecker NREMT-I, Jason T Machan PhD, Derek L Merck PhD, **Lisa H Merck MD MPH**, Selim Suner MD, Kenneth A Williams MD, Gregory D Jay MD PhD, Leo Kobayashi MD. Simulation-based Randomized Comparative Assessment of Out-of-Hospital Cardiac Arrest Resuscitation Bundle Completion by Emergency Medical Service Teams using Standard Life Support or an Experimental Automation-Assisted Approach. *Simulation in Healthcare: Journal of the Society for Simulation in Healthcare* · Dec 2016, Vol 11(6): p365-375 DOI: 10.1097/SIH.000000000000178.

13. Joseph Miller MD MS, **Lisa H. Merck MD MPH**, Charles (Chas) R. Wira MD, William J. Meurer MD MS, Jon W. Schrock MD, Jason T Nomura MD, Matthew S. Siket MD MS, Madsen, TE, MD ScM, David W. Wright MD, Peter D. Panagos MD, Christopher Lewandowski MD, The Advanced Reperfusion Era: Implications for Emergency Systems of Ischemic Stroke Care. *Annals of Emergency Medicine*. 9/3/2016, e-published ahead of print: DOI: 10.1016/j.annemergmed.2016.06.042.
14. Krishna Murthy, Owen Leary, **Lisa H. Merck**, Benjamin Kimia, Scott Collins, David W. Wright, Jason W. Allen, Derek Merck. Machine learning algorithm for automatic detection of CT-identifiable hyperdense lesions associated with traumatic brain injury. *Proc. SPIE 10134, Medical Imaging 2017: Computer-Aided Diagnosis, 101342G (March 23, 2017)*; doi:10.1117/12.2254227, DOI link: <http://dx.doi.org/10.1117/12.2254227>.
15. Kurt Denninghoff, Tomas Nuño, Qi Pauls, Sharon D. Yeatts, Robert Silbergleit, Yuko Y. Palesch, **Lisa H. Merck**, Geoff Manley, and David W. Wright. Pre-hospital intubation is associated with favorable outcomes and lower mortality in ProTECTIII Trial. *Prehospital Emergency Care, published online: 10 May 2017*, DOI link: <http://dx.doi.org/10.1080/10903127.2017.1315201>.
16. Shellie L. Asher MD, Kenneth V. Iserson MD, **Lisa H. Merck MD MPH**. Society for Academic Emergency Medicine Statement on Plagiarism. *Academic Emergency Medicine*. PMID 28628260 DOI: [10.1111/acem.13241](https://doi.org/10.1111/acem.13241)
17. Nuño T, Denninghoff KR, Pauls Q, Yeatts SD, Silbergleit R, Palesch YY, **Merck LH**, Manley G, Wright DW. Reply to: Prehospital Intubation: Further Confounders in Trial Results. *Prehospital Emergency Care: Official Journal of the National Association of Ems Physicians and the National Association of State Ems Directors*. 1. PMID [29338483](https://pubmed.ncbi.nlm.nih.gov/29338483/) DOI: [10.1080/10903127.2017.1408729](https://doi.org/10.1080/10903127.2017.1408729)
18. Charles R. Wira III, MD; Tracy E. Madsen, MD, ScM; Bernard P. Chang, MD, PhD; Jason T Nomura, MD; Evie Marcolini, MD; Nina T Gentile, MD; Kraftin E. Schreyer, MD, CMQ; **Lisa H Merck MD, MPH**; Matthew Siket, MD; Karen Greenberg, DO, FACOEP; Christopher G Zammit, MD; Edward C. Jauch, MD MS; and M. Fernanda Bellolio, MD, MSc from the Society for Academic Emergency Medicine Neurological Emergencies Interest Group. Emergency Medicine Stroke and Neurocritical Care Clinical Education. Is there a Neurologist in the House? A Summary of the Current State of Neurovascular Rotations for Emergency Medicine Residents. *First published: 05 October 2018* <https://doi.org/10.1002/aet2.10200>, © 2018 by the Society for Academic Emergency Medicine, doi: 10.1002/aet2.10200 ISSN 2472-5390 *Academic Emergency Medicine*.
19. Nicholas Asselin, DO MS, Bryan Choi, MD MPH, Catherine Pettit, MD, Max Dannecker, NREMT-I, Jason T Machan, PhD, Derek L Merck, PhD, **Lisa H Merck, MD MPH**, Selim Suner, MD, Kenneth A Williams, MD, Gregory D Jay, MD PhD, Leo Kobayashi, MD. Comparative Analysis of Emergency Medical Service Provider Workload during Simulated Out-of-Hospital Cardiac Arrest Resuscitation Using Standard versus Experimental Protocols and Equipment. *Simul Healthc*. 2018 Dec;13(6):376-386. doi: 10.1097/SIH.0000000000000339. PMID: 30407958; Epub ahead of print Nov 7, 2018 *Simulation in Healthcare*.
20. **Lisa H. Merck MD MPH**, Sharon D. Yeatts PhD, Geoff Manley MD PhD, Robert Silbergleit MD, Robin Conwit MD, Qi Pauls MS, Michael Frankel MD, Peter Le Roux MD, Yuko Palesch PhD, David W. Wright MD. Goal Directed Therapy in the ProTECTIII Clinical Trial: The Effect of Physiologic Transgressions on Patient Mortality and Functional Outcome after Traumatic Brain Injury. *Crit Care Med*. 2019 Feb 5. doi: 10.1097/CCM.00000000000003680. [Epub ahead of print] PMID: 30730438.

21. Frankel M, Yeatts SD, Fan L, Jeromin A, Vos PE, Wagner AK, Lunney M, **Merck LH**, Hall CL, Palesch YY, Silbergleit R, Wright D. The Association of Very Early Serum levels of S100B, GFAP, UCH-L1, and SBDP with Outcome in ProTECT III. *JNeurotrauma*. 2019 Feb 22. doi: 10.1089/neu.2018.5809. [Epub ahead of print] PMID: 30794101.
22. Taneisha T. Wilson, MD, ScM, **Lisa H. Merck, MD, MPH, FACEP**, Mark R. Zonfrillo, MD, MSCE, Jonathan S. Movson, MD, Derek Merck, PhD. Efficacy of Computed Tomography Utilization in the Assessment of Acute Traumatic Brain Injury in Pediatric and Adult Emergency Department Patients. *Review in Process, Pediatric Emergency Care and Medicine, 2019*.
23. Non-invasive Thermal Flow Evaluation of Ventriculoperitoneal Shunt Flow Improves Diagnostic Accuracy of Shunt Malfunction: A Prospective, Multi-Site, Operator-Blinded Study
Joseph R. Madsen MD, Mustafa Q. Hameed MD, Tehnaz P. Boyle MD PhD, Mark I Neuman MD MPH, Eun-Hyoung Park PhD, Mandeep S. Tamber MD PhD, Robert W. Hickey MD, Gregory G. Heuer MD, Joseph Zorc MD MSCE, Jeffery R. Leonard MD, Julie C. Leonard MD MPH, Robert Keating MD, James Chamberlain MD, David M. Frim MD PhD, Paula Zakrzewshi RN MSN, Petra Klinge MD PhD, **Lisa H. Merck MD MPH**, Joseph H. Piatt MD, Jonathan E. Bennett MD, David I. Sandberg MD, Frederick A. Boop MD. *Review in process, Neurosurgery 2019*.

Digital Media Publications:

1. Edward Walsh, Scott Collins, Owen Leary, Derek Merck, **Lisa Merck**, and Chester Sherwood. Bactrian Camel Brain Imaging. Brown University Digital Repository, 2016. Project Data DOI: <https://doi.org/10.7301/Z00C4SPV>.
2. Ibis Mummy CT Imaging. Merck PhD, Scott Collins RT(R)(CT), **Lisa Merck MD MPH**, Jen Thum MPhil, Julia Troche PhD, Owen Leary, John Cronan MD. This project was the result of a collaboration between Egyptology researchers from the Joukowsky Institute at Brown University and medical imaging researchers at Rhode Island Hospital and seeks to utilize diagnostic imaging techniques to confirm the identity of an unprovenanced 2000-year-old ibis mummy found at an archaeological site in Egypt. This unique application of imaging technology to archaeology research was sought because removing the wrapping from the mummy by hand would have risked irreversible damage to the delicate artifact. The study was used to confirm the presence of a mummified ibis inside the wrappings. Brown Digital Repository. Brown University Library. 2017; Project Data DOI: <https://doi.org/10.7301/Z0PZ56R5>
3. Merck, Derek; Collins, Scott; **Merck, Lisa**, Thum Jen; Troche, Julia; Leary, Owen; Cronan, John. Ibis mummy CT imaging: abstract and presentation (2016). *Ibis Mummy CT Imaging*. Brown Digital Repository. Brown University Library. <https://doi.org/10.7301/Z0PZ56R5>; <https://repository.library.brown.edu/studio/item/bdr:697318/>
4. Rashleigh, Edward Patrick; Merck, Derek; Collins, Scott; **Merck, Lisa**; Thum Jen; Troche, Julia; Leary, Owen; Cronan, John. 3D print of the ibis mummy skeleton with supports (2017). *Ibis Mummy CT Imaging, Browniverse: 3D Models and Printing Digital Library*. Brown Digital

Repository. Brown University Library.

<https://repository.library.brown.edu/studio/item/bdr:698091/>;

<https://repository.library.brown.edu/studio/item/bdr:698091/>

5. Merck PhD, Scott Collins RT(R)(CT), **Lisa Merck MD MPH**, Jen Thum MPhil, Julia Troche PhD, Owen Leary, John Cronan MD. (2016). Ibis mummy CT imaging: 3D slicer files (2016). *Ibis Mummy CT Imaging, Browniverse: 3D Models and Printing Digital Library*. Brown Digital Repository. Brown University Library. <https://doi.org/10.7301/Z0PZ56R5>;
<https://repository.library.brown.edu/studio/item/bdr:697315/>
6. Merck, Derek; Collins, Scott; **Merck, Lisa**, Thum Jen; Troche, Julia; Leary, Owen; Cronan, John. Ibis mummy CT imaging: CT scan 1 (2016). *Ibis Mummy CT Imaging*. Brown Digital Repository. Brown University Library. <https://doi.org/10.7301/Z0PZ56R5>;
<https://repository.library.brown.edu/studio/item/bdr:697313/>
7. Merck, Derek; Collins, Scott; **Merck, Lisa**, Thum Jen; Troche, Julia; Leary, Owen; Cronan, John. Ibis mummy CT imaging: CT scan 2 (2016). *Ibis Mummy CT Imaging*. Brown Digital Repository. Brown University Library. <https://doi.org/10.7301/Z0PZ56R5>;
<https://repository.library.brown.edu/studio/item/bdr:697314/>
8. Merck, Derek; Collins, Scott; **Merck, Lisa**, Thum Jen; Troche, Julia; Leary, Owen; Cronan, John. Ibis mummy CT imaging: STL files (2016). *Ibis Mummy CT Imaging, Browniverse: 3D Models and Printing Digital Library*. Brown Digital Repository. Brown University Library. <https://doi.org/10.7301/Z0PZ56R5>;
<https://repository.library.brown.edu/studio/item/bdr:697316/>
9. Merck, Derek; Collins, Scott; **Merck, Lisa**, Thum Jen; Troche, Julia; Leary, Owen; Cronan, John. Ibis mummy CT imaging: temporal bone comparison (2016). *Ibis Mummy CT Imaging*. Brown Digital Repository. Brown University Library. <https://doi.org/10.7301/Z0PZ56R5>;
<https://repository.library.brown.edu/studio/item/bdr:697317/>

Books and Book Chapters:

1. **Fagan, L.H.**, Asthma Protocols in an Urban Emergency Department. Thesis, 2002, Oregon Health Sciences University, Dept of Public Health, Preventive Medicine/Mt. Sinai Hospital, Chicago, Illinois.
2. Wright D, **Merck LH**: Head Trauma in Adults and Children. In Tintinalli JE, Stapczynski JS, Ma OJ, Cline DM, Cydulka R (eds): *Emergency Medicine: A Comprehensive Study Guide*, 7th edition. McGraw-Hill, Inc., 2010.
3. Wright D, **Merck LH**: Head Trauma in Adults and Children. In Tintinalli JE, Stapczynski JS, Ma OJ, Cline DM, Cydulka R (eds): *Tintinalli's Emergency Medicine Manual*, 7th Ed. (Pocket Edition). McGraw-Hill, Inc., 2011.
4. Wright D, **Merck LH**: Head Trauma. In Tintinalli JE, Stapczynski JS, Ma OJ, Cline DM, Cydulka R (eds): *Emergency Medicine: A Comprehensive Study Guide*, 8th edition. McGraw-Hill, Inc 2015.

5. Wright D, **Merck LH**: Head Trauma. In Tintinalli JE, Stapczynski JS, Ma OJ, Cline DM, Cydulka R (eds): *Emergency Medicine: A Comprehensive Study Guide*, 9th edition. McGraw-Hill, Inc 2019, *in press*.

Corporate Authorship:

1. Silbergleit, R., Lowenstein, D., Durkalski, V., Conwit, R. and the Neurological Emergency Treatment Trials (NETT) Investigators (2011). RAMPART (Rapid Anticonvulsant Medication Prior to Arrival Trial): A double-blind randomized clinical trial of the efficacy of intramuscular midazolam versus intravenous lorazepam in the prehospital treatment of status epilepticus by paramedics. *Epilepsia*, 52: 45–47. Role: Co-investigator, the Neurological Emergency Treatment Trials Network.
2. Intramuscular versus Intravenous Therapy for Prehospital Status Epilepticus. Robert Silbergleit, M.D., Valerie Durkalski, Ph.D., Daniel Lowenstein, M.D., Robin Conwit, M.D., Arthur Pancioli, M.D., Yuko Palesch, Ph.D., and William Barsan, M.D. for the NETT Investigators. *New England Journal of Medicine* 2012; 366:591-600 February 16, 2012. Role: Co-investigator, the Neurological Emergency Treatment Trials Network.
3. Silbergleit, R., Biros, M. H., Harney, D., Dickert, N., Baren, J. and on behalf of the NETT Investigators (2012). Implementation of the Exception From Informed Consent Regulations in a Large Multicenter Emergency Clinical Trials Network: The RAMPART Experience. *Academic Emergency Medicine*, 19: 448–454. Role: Co-investigator, the Neurological Emergency Treatment Trials Network.
4. The 60-Day Temperature-Dependent Degradation of Midazolam and Lorazepam in the Prehospital Environment. Jason T. McMullan, MD, Ashley Pinnawin, BS, Elizabeth Jones, MD, Kurt Denninghoff, MD, Nicholas Siewart, BA, Daniel W. Spaite, MD, Erin Zaleski, MA, and Robert Silbergleit, MD, on behalf of the Neurological Emergencies Treatment Trials investigators. *Prehosp Emerg Care*. 2013 Jan-Mar; 17(1): 1–7. Published online 2012 Nov 13. doi: 10.3109/10903127.2012.722177. Role: Co-investigator, the Neurological Emergency Treatment Trials Network.
5. Silbergleit, R., Lowenstein, D., Durkalski, V., Conwit, R. and on behalf of the NETT Investigators (2013). Lessons from the RAMPART study—and which is the best route of administration of benzodiazepines in status epilepticus. *Epilepsia*, 54: 74–77. Role: Co-investigator, the Neurological Emergency Treatment Trials Network.
6. High-dose albumin treatment for acute ischaemic stroke (ALIAS) part 2: a randomised, double-blind, phase 3, placebo-controlled trial. Myron D Ginsberg, Yuko Y Palesch, Michael D Hill, Renee H Martin, Claudia S Moy, William G Barsan, Bonnie D Waldman, Diego Tamariz, Karla J Ryckborst, for the ALIAS and Neurological Emergencies Treatment Trials (NETT) Investigators. *Lancet Neurol*, 2013; 12: 1049–58 Published Online September 27, 2013 [http://dx.doi.org/10.1016/S1474-4422\(13\)70223-0](http://dx.doi.org/10.1016/S1474-4422(13)70223-0). Role: Co-investigator, the Neurological Emergency Treatment Trials Network.
7. Welch, R. D., Nicholas, K., Durkalski-Mauldin, V. L., Lowenstein, D. H., Conwit, R., Mahajan, P. V., Lewandowski, C., Silbergleit, R. and For the Neurological Emergencies Treatment Trials (NETT) Network Investigators. (2015). Intramuscular midazolam versus intravenous lorazepam for the

prehospital treatment of status epilepticus in the pediatric population. *Epilepsia*, 56(2), 254–262.
Role: Co-investigator, the Neurological Emergency Treatment Trials Network.

8. Qureshi AI, Palesch YY, Barsan WG, Hanley DF, Hsu CY, Martin RL, Moy CS, Silbergleit R, Steiner T, Suarez JI, Toyoda K, Wang Y, Yamamoto H, Yoon BW; ATACH-2 Trial Investigators and the Neurological Emergency Treatment Trials Network. [Intensive Blood-Pressure Lowering in Patients with Acute Cerebral Hemorrhage](#). *New England Journal of Medicine*. 2016 Jun 8. [Epub ahead of print] PubMed PMID: 27276234. Role: Site Principal Investigator, the Neurological Emergency Treatment Trials Network.
9. S. Claiborne Johnston, M.D., Ph.D., J. Donald Easton, M.D., Mary Farrant, M.B.A., William Barsan, M.D., Robin A. Conwit, M.D., Jordan J. Elm, Ph.D., Anthony S. Kim, M.D., Anne S. Lindblad, Ph.D., and Yuko Y. Palesch, Ph.D., for the Clinical Research Collaboration, Neurological Emergencies Treatment Trials Network, and the POINT Investigators* Clopidogrel and Aspirin in Acute Ischemic Stroke and High-Risk TIA. *New England Journal of Medicine*, 2018; This article was published on May 16, 2018, at NEJM.org. DOI: 10.1056/NEJMoa1800410. PMID: 29766750. Role: Site co-Principal Investigator, the Neurological Emergency Treatment Trials Network.

Other Peer Reviewed:

1. Clinical Heterogeneity in the Treatment of Traumatic Brain Injury at Level I Trauma Centers. **Lisa H. Merck MD, MPH**, Geoffrey T. Manley MD, PhD, Harriet Howlett-Smith RN, CCRC, Anna Marie Calcaterra and David W. Wright MD. *Academic Emergency Medicine* May 2010, Vol 17, No 5, Suppl 1.
2. Physiologic Parameters in Goal Directed Therapy for Traumatic Brain Injury at a Level I Trauma Center. **Lisa H. Merck MD MPH**, Leon L Haley, Jr., MD MHSA, Samuel J. Chang BS, Patrick D. Kilgo MS, Lovette Lindon PhD, David W. Wright MD. *Academic Emergency Medicine* May 2011, Vol 18, No 5, Suppl 1, pS179.
3. Informed Consent for Computerized Tomography via Video Educational Module in the Emergency Department. **Lisa H. Merck MD MPH**, Michael Holdsworth BS BA, Joshua Keithley BS, Debra Houry MD MPH, Laura A. Ward MSPH, Kimberly E. Applegate MD MSPH, Douglas W. Lowery-North MD MSPH, Kate Heilpern MD FACEP. *Academic Emergency Medicine*, April 2012, Vol 19, S1 pages S1-S426.
4. When Do We Order CT to Assess Abdominal and Pelvic Pain? A Predictive Model of Computerized Tomography Utilization in the Emergency Department. Michael Holdsworth MD, Laura A. Ward MSPH, Douglas W. Lowery-North MD MSPH, Kate Heilpern MD, Debra Houry MD MPH, Kimberly E. Applegate MD MSPH, **Lisa H. Merck MD MPH**. *Annals of Emergency Medicine*. 2012; 60 (4) S107.
5. Predictors of Positive Findings in Abdominal Computerized Tomography in the Emergency Department. **Lisa H. Merck MD MPH**, Kate Heilpern MD, Debra Houry MD MPH, Michael Holdsworth MD, Laura A. Ward MSPH, Kimberly Applegate MD MS, Douglas W. Lowery-North MD MSPH. *Annals of Emergency Medicine*. 2012; 60 (4) S49.

6. Electronic Medical Records and Compliance with Goal-Directed Therapy in Traumatic Brain Injury. Jordan P. Kaylor MD, Leon L. Haley MD MHSA, David W. Wright MD, Samuel L. Chang MD, **Lisa H. Merck MD MPH**. *Annals of Emergency Medicine*. 2012; 60 (4) S50.
7. Transient Neurological Symptoms with MRI Evidence of Infarction in an Emergency Department Observation Unit (EDOU). Matthew S Siket, Brian Silver, Todd A Seigel, Gino Paolucci, John A Pezzullo III, Jeffrey Rogg, Frantz J Gibbs, **Lisa H. Merck**. *Stroke*, February 2014, Vol 45, Suppl 1.
8. Written Informed Consent for Computerized Tomography Decreases CT Utilization in Low Risk Emergency Department Patients. **Lisa H. Merck**, Laura Ward, Michael Holdsworth, Debra Houry Kimberly Applegate, Douglas Lowery-North, Katherine Heilpern. *Academic Emergency Medicine* [1069-6563] 2014 vol:21 iss:5 SUPPL. 1 pg:S192 -S192.
9. Sex Differences in Clinical Presentation and Outcome: Patients Admitted to a Transient Ischemic Attack Emergency Department Observation Unit. Tracy E Madsen, **Lisa H. Merck**, Matthew S. Siket, Gino Paolucci, My T Tran, Brian Silver. *Stroke*, 2015; 46:ATP217.
10. David M. Frim MD PhD, Joseph MR. Madsen MD for the ShuntCheck Study Group [Tehnaz P. Boyle MD PhD, Mark I Neuman MD MPH, Mandeep S. Tamber MD PhD, Robert W. Hickey MD, Gregory G. Heuer MD, Joseph Zorc MD MSCE, Jeffrey R. Leonard MD, Julie C. Leonard MD MPH, Robert Keating MD, James Chamberlain MD, Pula Zakrzewski RM MSN, Petra Klinge MD PhD, **Lisa H. Merck MD MPH**, Joseph H. Piatt MD, Jonathan E. Bennett MD, David I. Sandberg MD, Fredrick A Boop MD. Thermal Flow Detection Improves Diagnostic Accuracy of Shunt Malfunction: Prospective, Multicenter, Operator-Blinded Study. *Journal of Neurosurgery* Apr 2016 / Vol. 124 / No. 4 / Pages A1146-A1209.

Scholarly Work Published in other Media:

Web: <http://www.accessem.com/textbooks.aspx> Wright D, Merck LH: Head Trauma in Adults and Children. In Tintinalli JE, Stapczynski JS, Ma OJ, Cline DM, Cydulka R (eds) McGraw-Hill, Inc., 2010.

Video: Informed Consent for Computerized Tomography, Video. Written and directed by: Lisa H. Merck MD, MPH, produced by: Burton Fox, MS. Emory University, 2011.

INVITED PRESENTATIONS:

ABSTRACTS:

1. 2001 Frim, D.M., **Fagan, L.H.** Pseudotumor Cerebri associated with treatment for Chiari Malformation Type I. Joint Section on Pediatric Neurosurgery of the American Association of Neurological Surgery and the Congress of Neurological Surgeons, November 2001, New York, New York.

2. 2005 Looney, C.B., Smith J.K., **Fagan L.H.**, Hamer R.M., Gilmore J.H. Intracranial hemorrhage in asymptomatic neonates: prevalence on 3.0 T MR scans and relationship to obstetric and neonatal risk factors. Radiologic Society of North America, November 2005, Chicago, Illinois.
3. 2008 Biese, K., Mehrotra, A., Cook, J., **Merck, L.**, Page, B. Emergency Department Crowding Increases Acquisition Time of Brain CT and ECG. Society for Academic Emergency Medicine, June 2008, Washington D.C.
4. 2010 Clinical Heterogeneity in the Treatment of Traumatic Brain Injury at Level I Trauma Centers. **Lisa H. Merck MD, MPH**, Geoffrey T. Manley MD, PhD, Harriet Howlett-Smith RN, CCRC, Anna Marie Calcaterra and David W. Wright MD. Society for Academic Emergency Medicine- National Annual Meeting, May 2010, Phoenix, Arizona.
5. 2011 Physiologic Parameters in Goal Directed Therapy for Traumatic Brain Injury at a Level I Trauma Center. **Lisa H. Merck MD MPH**, Leon L Haley, Jr., MD MHSA, Samuel J. Chang BS, Patrick D. Kilgo MS, Lovette Lindon PhD, David W. Wright MD. Society for Academic Emergency Medicine- National Annual Meeting, May 2011, Boston, Massachusetts.
6. 2012 Predictors of Positive Findings in Abdominal Computerized Tomography in the Emergency Department. **Lisa H. Merck MD MPH**, Kate Heilpern MD, Debra Houry MD MPH, Michael Holdsworth MD, Laura A. Ward MSPH, Kimberly Applegate MD MS, Douglas W. Lowery-North MD MSPH. American College of Emergency Physicians, National Annual Meeting, October 2012, Denver, Colorado.
7. 2012 When Do We Order CT to Assess Abdominal and Pelvic Pain? A Predictive Model of Computerized Tomography Utilization in the Emergency Department. Michael Holdsworth MD, Laura A. Ward MSPH, Douglas W. Lowery-North MD MSPH, Kate Heilpern MD, Debra Houry MD MPH, Kimberly E. Applegate MD MSPH, **Lisa H. Merck MD MPH**. American College of Emergency Physicians, National Annual Meeting, October 2012, Denver, Colorado.
8. 2012 Informed Consent for Computerized Tomography via Video Educational Module in the Emergency Department. **Lisa H. Merck MD MPH**, Michael Holdsworth BS BA, Joshua Keithley BS, Debra Houry MD MPH, Laura A. Ward MSPH, Kimberly E. Applegate MD MSPH, Douglas W. Lowery-North MD MSPH, Kate Heilpern MD FACEP. Society for Academic Emergency Medicine National Annual Meeting, May 2012, Chicago, Illinois.
9. 2012 Electronic Medical Records and Compliance with Goal-Directed Therapy in Traumatic Brain Injury. Jordan P. Kaylor MD, Leon L. Haley MD MHSA, David W. Wright MD, Samuel L. Chang MD, **Lisa H. Merck**. American College of Emergency Physicians, National Annual Meeting, October 2012, Denver, Colorado.
10. 2014 Transient Neurological Symptoms with MRI Evidence of Infarction in an Emergency Department Observation Unit (EDOU). Matthew S Siket, Brian Silver, Todd A Seigel, Gino Paolucci, John A Pezzullo III, Jeffrey Rogg, Frantz J Gibbs, **Lisa H Merck**. International Stroke Conference, February 2014, San Diego, California.
11. 2014 Implementation of a Magnetic Resonance Imaging Protocol for Patients with Transient Ischemic Attack in an Emergency Department Observation Unit. Matthew Siket, Todd Siegel, Gino Paolucci, **Lisa Merck**, Frantz Gibbs, John Pezullo III, Jeffrey Rogg, Brian Silver. Society for Academic Emergency Medicine National Annual Meeting, May 2014, Dallas, Texas.

12. 2014 Written Informed Consent for Computerized Tomography Decreases CT Utilization in Low Risk Emergency Department Patients. **Lisa H. Merck**, Laura Ward, Michael Holdsworth, Debra Houry, Kimberly Applegate, Douglas Lowery-North, Katherine Heilpern. Society for Academic Emergency Medicine National Annual Meeting, May 2014, Dallas, Texas.
13. 2014 Written Informed Consent for Computerized Tomography Decreases CT Utilization in Low Risk Emergency Department Patients. **Lisa H. Merck**, Laura Ward, Michael Holdsworth, Debra Houry, Kimberly Applegate, Douglas Lowery-North, Katherine Heilpern. New England, Society for Academic Emergency Medicine Regional Conference Yale University, March 2014, New Haven, Connecticut.
14. 2014 Implementation of a Magnetic Resonance Imaging Protocol for Patients with Transient Ischemic Attack in an Emergency Department Observation Unit. Matthew Siket, Todd Siegel, Gino Paolucci, **Lisa Merck**, Frantz Gibbs, John Pezullo III, Jeffrey Rogg, Brian Silver. Society for Academic Emergency Medicine Regional Conference Yale University, March 2014, New Haven, Connecticut.
15. 2015 Biomarkers Of Injury And Outcome In Protect III (BIO-ProTECT). Michael Frankel, Sharon D. Yeatts, Liqiong Fan, Andreas Jeromin, Pieter E. Vos, Amy K. Wagner, Harriet Smith, Bethany Lane, Michael Lunney, Casey L. Hall, **Lisa H. Merck**, Yuko Y. Palesch, Robert Silbergleit, David W. Wright. Society for Academic Emergency Medicine, May 2015, San Diego, California.
16. 2015 The Diagnosis, Etiologic Classification, and Safe Discharge of Ischemic Strokes with Transient Symptoms from an Emergency Department Observation Unit. Matthew S. Siket, Idara U. Ndon, Janette R. Baird, Tracy E. Madsen, **Lisa H. Merck**, Anthony M. Napoli, Gino Paolucci, Todd A. Seigel, Virginia M. Tran, Brian Silver. International Stroke Conference, February 2015, Nashville, Tennessee.
17. 2015 Sex Differences in Clinical Presentation and Outcome: Patients Admitted to a Transient Ischemic Attack Emergency Department Observation Unit. Tracy E Madsen, **Lisa H. Merck**, Matthew S. Siket, Gino Paolucci, My T Tran, Brian Silver. International Stroke Conference, February 2015, Nashville, Tennessee.
18. 2015 Clinical Predictors of Stroke, TIA and Mimic among Patients with Transient Neurological Dysfunction Admitted to an Emergency Department Observation Unit. Matthew S. Siket, Virginia M. Tran, Janette R. Baird, Tracy E. Madsen, **Lisa H. Merck**, Anthony M. Napoli, Gino Paolucci, Todd A. Seigel, Brian Silver. International Stroke Conference, February 2015, Nashville, Tennessee.
19. 2015 Choi B, Asselin N, Pettit CC, Dannecker M, Jones MS, **Merck L**, Suner S, Williams K, Jay GD, Kobayashi L. Interim results of randomized controlled simulation testing of standard and automated device-assisted pre-hospital cardiac arrest resuscitation approaches. Presentation at the International Meeting on Simulation in Healthcare, January 2015, New Orleans, Louisiana.
20. 2016 Frim DM, Boyle T, Zorc J, Hickey R, Leonard J, Neuman M, Chamberlain J, Heuer G, Boop R, Sandberg D, Mandeep T, Klinge P, **Merck L**, Keating R, Leonard J, Piatt J, Bennett J, Chesler D, Hameed M, Anor T, Fritz F, Madsen J. Thermal Flow Detection Improves Diagnostic Accuracy of Shunt Malfunction: Prospective, Multicenter, Operator-Blinded

Study. Accepted for presentation as a plenary session; American Association of Neurological Surgery Annual Scientific Meeting; April 2016, Chicago, Illinois.

21. 2016 **Lisa H. Merck MD MPH**, David W. Wright MD, Owen Leary, Michael P. Lunney MPH NRP, Scott Collins RT(R)(CT), Jason Allen MD PhD, Sharon Yeatts PhD, Derek Merck PhD. Case Series: 3D Image Analysis in Traumatic Brain Injury. Radiologic Society of North America; December 2016, Chicago, IL.
22. 2017 Krishna Murthy, Owen Leary, **Lisa H. Merck**, Benjamin Kimia, Scott Collins, David W. Wright, Jason W. Allen, Derek Merck. Machine learning algorithm for automatic detection of CT-identifiable hyperdense lesions associated with traumatic brain injury. The International Society for Optics and Photonics (SPIE); February 2017, Orlando FL.
23. 2017 Tehnaz Boyle, Joseph Madsen, Mark Neuman, Mandeep Tamber, Robert W. Hickey, Gregory Heuer, Jeffrey Leonard, Julie C. Leonard, Robert Keating, James Chamberlain, David Frim, Paula Zakrzewski, Petra Klinge, **Lisa Merck**, Joseph Piatt, Jonathon Bennett, David Sandberg, Frederick Boop, Joseph Zorc. ShuntCheck versus Neuroimaging for Diagnosing Ventricular Shunt Malfunction in the Emergency Department. Pediatric Academic Societies meeting; May 2017, San Francisco, CA.
24. 2017 Owen Leary*, **Lisa H. Merck MD MPH***, David W. Wright MD, Maria Braileanu MD, Scott Collins RT(R)(CT), Jason W. Allen MD PhD, Sharon Yeatts PhD, Derek Merck PhD. 3D Illustration to Quantify Volume of Traumatic Intraparenchymal Hemorrhage. *Dr. Lisa H. Merck is supervising first author. World Intracranial Hemorrhage Conference; Baltimore Maryland, May 2017.
25. 2017 Kobayashi L, Collins S, **Merck LH**, Merck DL. Exploratory Applications of Augmented Reality for Patient Education in Emergency Medicine. Society for Academic Emergency Medicine, National Conference; Orlando, Florida, May 2017.
26. 2017 Derek Merck PhD, David W. Wright MD, Owen Leary, Sean O'Donnell, Scott Moody, Maria Braileanu MD, Scott Collins RT(R)(CT), Jason W. Allen MD PhD, Kurt R. Denninghoff MD, Sharon Yeatts PhD, **Lisa H. Merck MD MPH**. 3D Illustration Offers a More Precise Method to Quantify Bleed Volume after Traumatic Brain Injury when Compared to Standard Methods. Society for Academic Emergency Medicine, New England Research Directors Regional Conference; Worcester, MA. April 2017.
27. 2017 Kurt Denninghoff, Tomas Nuño, Qi Pauls, Sharon D. Yeatts, Robert Silbergleit, Yuko Y. Palesch, **Lisa H. Merck**, Geoff Manley, and David W. Wright. Pre-hospital intubation is associated with favorable outcomes and lower mortality in ProTECTIII Trial. Society for Academic Emergency Medicine, Western Regional Conference; Stanford, CA. April 2017.
28. 2017 Kurt Denninghoff, Tomas Nuño, Qi Pauls, Sharon D. Yeatts, Robert Silbergleit, Yuko Y. Palesch, **Lisa H. Merck**, Geoff Manley, and David W. Wright. Pre-hospital intubation is associated with favorable outcomes and lower mortality in ProTECTIII Trial. Society for Academic Emergency Medicine, National Conference; Orlando, Florida. May 2017.
29. 2017 Keshavamurthy, Krishna Nand, Owen Leary, **Lisa H. Merck**, Benjamin Kimia, Scott Collins, David W. Wright, Jason Allen, and Derek Merck. Machine Learning Algorithm for Automatic Detection of CT-Identifiable Hyperdense Lesions Associated with Traumatic

- Brain Injury. Poster presentation, Mind/Brain Research Day, Brown University, Providence, RI, March 2017.
30. 2017 Leary, Owen*, **Lisa Merck***, David Wright, Maria Braileanu, Scott Collins, Jason Allen, Sharon Yeatts, and Derek Merck. 3D Illustration to Quantify Volume of Traumatic Intraparenchymal Hemorrhage. Poster presentation, Mind/Brain Research Day, Brown University, Providence, RI, March 2017. *supervising first author
31. 2017 Derek Merck PhD, David W. Wright MD, Owen Leary, Maria Braileanu MD, Scott Collins RT(R)(CT), Jason W. Allen MD PhD, Sharon D. Yeatts PhD, **Lisa H. Merck MD MPH**. 3D Illustration to Quantify Volume of Subdural and Epidural Hematomas. Neurocritical Care Society, International Conference: Kona, Hawaii, October 2017.
32. 2017 **Lisa H. Merck MD MPH**, Sharon D. Yeatts PhD, Geoff Manley MD PhD, Robert Silbergleit MD, Robin Conwit MD, Qi Pauls MS, Michael Frankel MD, Peter Le Roux MD, Yuko Palesch PhD, David W. Wright MD. Goal Directed Therapy in the ProTECTIII Clinical Trial: The Effect of Physiologic Transgressions on Patient Mortality after Traumatic Brain Injury. Neurocritical Care Society, International Conference: Kona, Hawaii, October 2017.
33. 2017 **Lisa H. Merck MD MPH**, Sharon D. Yeatts PhD, Geoff Manley MD PhD, Robert Silbergleit MD, Robin Conwit MD, Qi Pauls MS, Michael Frankel MD, Peter Le Roux MD, Yuko Palesch PhD, David W. Wright MD. Goal Directed Therapy in the ProTECTIII Clinical Trial: The Effect of Physiologic Transgressions on Patient Functional Outcome after Traumatic Brain Injury. Neurocritical Care Society, International Conference: Kona, Hawaii, October 2017.
34. 2018 Owen P. Leary, Sharon Yeatts, Casey Poore, David W. Wright, Jason W. Allen, Qi Pauls, **Lisa H. Merck**. Progesterone Therapy & Clinical Outcomes in Diffuse Axonal Injury: A Retrospective Analysis of Data from the ProTECTIII Trial. NeuroTrauma, The 3rd Joint Symposium of the International and National Neurotrauma Societies and American Association of Neurological Surgery / Congress of Neurological Surgeons Section on Neurotrauma and Critical Care. Toronto, Canada, August 2018.
35. 2018 Tomas Nuño, PhD, Kurt Denninghoff, MD, **Lisa Merck, MD MPH**, Qi Pauls, MS, Sharon Yeatts, PhD, Yuko Palesch, PhD, Robert Silbergleit, MD, Geoffrey Manley, MD PhD, and David Wright, MD. Racial/ethnic minority participation in clinical research: Assessment of Exception from Informed Consent in ProTECT III. American Public Health Association, San Diego, CA, November 2018.
36. 2018 Pan, Ian, Owen Leary, Stefan Jung, Krishna Nand Keshavamurthy, Jason Allen, David Wright, **Lisa H. Merck**, and Derek Merck. Deep Learning for Automatic Detection and Segmentation of Acute Epidural and Subdural Hematomas in Head CT. Abstract / Research presentation, Radiological Association of North America (RSNA), Chicago, IL, November 2018.
37. 2019 The Relationship Between Magnitude of International Normalized Ratio and Outcome After Traumatic Brain Injury. Fiona Chen; Qi Pauls, MS; Sharon D. Yeatts, PhD; David W. Wright, MD; Rie Calcaterra; **Lisa H. Merck, MD MPH**. *Invitation to present at the Society for Academic Emergency Medicine, National Conference; Las Vegas, Nevada. May 2019.*

38. 2019 The Relationship Between Magnitude of International Normalized Ratio and Outcome After Traumatic Brain Injury. Fiona Chen; Qi Pauls, MS; Sharon D. Yeatts, PhD; David W. Wright, MD; Rie Calcaterra; **Lisa H. Merck, MD MPH**. *Invitation to present at the New England Regional Meeting of the Society for Academic Emergency Medicine, Worcester, MA, 3/2019.*
39. 2019 Efficacy of Computed Tomography Use in Assessing Traumatic Brain Injury in Adult and Pediatric Patients. Taneisha Wilson, **Lisa H. Merck**, Marc Zonfrillo, John Movson, Derek Merck. *Invitation to present at the New England Regional Meeting of the Society for Academic Emergency Medicine, Worcester, MA, 3/2019.*

SEMINARS and LECTURES:

National:

1. 2011 Decompressive Craniectomy in Diffuse Traumatic Brain Injury. Neurological Emergencies Treatment Trial Network, National Tele-conference/Journal Club.
2. 2014 Gender Differences in Neurological Emergencies: A Consensus Summary and Research Agenda on Traumatic Brain Injury. Gender-Specific Research in Emergency Care: Investigate, Understand, and Translate How Gender Affects Patient Outcomes. Society for Academic Emergency Medicine, National Consensus Conference, May 2015, Dallas, Texas, **Lisa H. Merck MD MPH** and NETT investigators.
3. 2014 Cognitive Function and Traumatic Brain Injury. Neurological Emergencies Treatment Trial Network, Journal Club, national tele-conference.
4. 2014 Progesterone in the Treatment of Acute Traumatic Brain Injury. David W. Wright, MD, Sharon D. Yeatts, PhD, Robert Silbergleit, MD, Yuko Y. Palesch, PhD, Vicki S. Hertzberg, PhD, Michael Frankel, MD, Harriet Howlett-Smith, RN, Erin M. Bengelink, MA, Geoff Manley, MD, PhD, **Lisa H. Merck, MD MPH**, Scott Janis, PhD, William Barsan, MD. Results of the ProTECTIII clinical trial, presented at the Neurocritical Care Society National Conference, September 2014, Seattle, Washington.
5. 2015 Automated Ventricular Analysis. American Academy of Neurology-National Institute for Neurological Disorders and Stroke. Clinical Trials Methodology Cohort, April 2015, Washington DC.
6. 2015 The STITCH (TRAUMA) trial - Surgery for Traumatic Intracranial Hemorrhage. Neurological Emergencies Treatment Trial Network, Journal Club, national tele-conference, September 2015.
7. 2018 University of Florida, Department of Emergency Medicine Grand Rounds. Traumatic Brain Injury: Special Considerations in Clinical Research. Sept. 13th, 2018. The Shands Auxillary Conference Center, University of Florida, Gainesville, Florida.

8. 2019 Clearing Up the Confusion: Emergency Department Management of Glasgow Coma Score 15 Brain Bleeds. Invited Didactic Session, Society for Academic Emergency Medicine; May 17, 2019, Las Vegas, Nevada.

Regional:

1. 2009 Traumatic Brain Injury, An Overview. Lecture, Georgia College of Emergency Physicians, Regional Annual Meeting, June 2009, Hilton Head, South Carolina.
2. 2010 Clinical Heterogeneity in the Treatment of Traumatic Brain Injury at Level I Trauma Centers. Plenary Session, Southeastern Society for Academic Emergency Medicine, Feb 2010, Birmingham, Alabama.

Local:

1. 2000 Chiari malformation. Neurological Surgery Conference, Oregon Health and Sciences University, Portland, Oregon.
2. 2001 Chiari malformation. Neurological Surgery Conference, University of Chicago, Chicago, Illinois.
3. 2002 Compliance with Asthma Protocols in an Urban Emergency Department. Thesis Defense, Oregon Health Sciences University, Portland, Oregon.
4. 2004 Spinal Injury. Neurological Surgery Resident Lecture, Duke University Medical Center, Durham, North Carolina.
5. 2006 Approach to Lumbar Puncture. Lecture for Medical Students in Emergency Medicine, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
6. 2006 Approach to Central Line Placement. Lecture/Laboratory for Medical Students in Emergency Medicine, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
7. 2006 Management of Stroke. Medical Student Teaching Lecture, Department of Emergency Medicine, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
8. 2006 Perinatal Seizure. Joint Pediatric Intensive Care and Emergency Medicine Conference, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
9. 2006 Diagnosis and Initial Management of Traumatic Spinal Injury. Emergency Medicine Resident Lecture, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
10. 2007 Steroid Therapy in Spinal Cord Injury. Joint Emergency Department and Trauma Surgery Conference. University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
11. 2007 Ectopic Pregnancy. Joint Obstetrics and Emergency Medicine Conference. University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

12. 2007 Wound Management. Medical Student Lecture/Laboratory, Department of Emergency Medicine, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
13. 2007 Trauma in the Emergency Department. Lecture for Medical Students in Emergency Medicine, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
14. 2007 The Interpretation of Chest Radiographs. Lecture for Medical Students in Emergency Medicine, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
15. 2008 Neurovascular Emergencies. Emergency Medicine Department, Grand Rounds Lecture. University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.
16. 2010 Neurological Exam and Signs of Increased Intracranial Pressure in Adults and Children. Emergency Medicine Resident Lecture, Emory University, Atlanta, Georgia.
17. 2010 Neuroradiology for the Emergency Physician. Emergency Medicine Resident Lecture, Emory University, Atlanta, Georgia.
18. 2010 Anatomy of the Spine, Anatomy of Spine Trauma, and Steroids in Spinal Cord Injury. Emergency Medicine Resident Lecture, Emory University, Atlanta, Georgia.
19. 2010 Narrative and Reflection in Clinical Medicine. Emergency Medicine Resident Lecture and Small Group Conference, Emory University, Atlanta, Georgia.
20. 2010 Clinical Heterogeneity in the Treatment of Traumatic Brain Injury at Level I Trauma Centers. Emergency Medicine Resident Lecture, Emory University, Atlanta, Georgia.
21. 2011 Introduction to Neurological Emergencies, Increased Intracranial Pressure, and Neuroradiology in Adults and Children. Emergency Medicine Resident Lecture, Emory University, Atlanta, Georgia.
22. 2011 Informed Consent for Computerized Tomography. Abstract presentation, Emory Health Care Quality Conference, Emory University, Atlanta, Georgia.
23. 2011 Treatment of Neurological Emergencies. Emergency Department Nursing Seminar, Grady Memorial Hospital, Atlanta Georgia.
24. 2012 Introduction to Neurological Emergencies, Increased Intracranial Pressure, and Neuroradiology in Adults and Children. Emergency Medicine Resident Lecture, Brown University, Providence, Rhode Island.
25. 2013 Goal Directed Therapy for Traumatic Brain Injury. Neurosurgery Resident Lecture, Brown University, Providence, Rhode Island.
26. 2013 Goal Directed Therapy and Exception from Informed Consent in the ProTECTIII Trial. Emergency Medicine Resident Lecture, Brown University, Providence, Rhode Island.
27. 2013 Neurointensive Care and Goal Directed Therapy in Traumatic Brain Injury and the ProTECTIII Clinical Trial. Neurocritical Care Nursing / Midlevel Provider lecture at Rhode Island Hospital.

28. 2013 Goal Directed Therapy in Traumatic Brain Injury, Polytrauma, and the ProTECTIII Clinical Trial. Critical Care Nursing lecture in Trauma ICU at Rhode Island Hospital.
29. 2014 Exception From Informed Consent, 21CFR50.24 - Responsible Conduct of Research Lecture, Department of Emergency Medicine, Brown University, Providence, Rhode Island.
30. 2015 Exception From Informed Consent, 21CFR50.24, and the ESETT Clinical Trial - Responsible Conduct of Research Lecture, Department of Emergency Medicine Brown University, Providence, Rhode Island.
31. 2015 Asselin N, Choi B, Pettit CC, Dannecker M, Jones MS, **Merck L**, Suner S, Williams K, Jay GD, Kobayashi L. Interim results of pre-hospital provider workload assessment during simulation testing of experimental device-assisted cardiac arrest resuscitation. Lifespan Research Celebration, Providence, Rhode Island.
32. 2016 Understanding Research Relationships. Responsible Conduct of Research Lecture, Department of Emergency Medicine Brown University, September 2016, Providence, Rhode Island.
33. 2016 The Identification and Treatment of Increased Intracranial Pressure in Adults and Children. Educational Lecture, Department of Emergency Medicine Brown University, May 2016. Providence, Rhode Island.
34. 2017 Conducting Research. **Merck L** and Jay G. Research Education Lecture Series, Department of Emergency Medicine Brown University, Providence, Rhode Island.
35. 2017 Traumatic Brain Injury, Epidemiology and Advances in Clinical Care. Neuroscience Graduate Program In House Seminar, Brown University, Providence, Rhode Island.
36. 2018 Research in Emergency Medicine. Emergency Medicine Resident Lecture and Panel Discussion. Brown University, Providence, Rhode Island.
37. 2018 History and Ethics of Informed Consent and Exception From Informed Consent in Emergency Research, Department of Engineering. Engineering 2910G - Translational Engineering and Entrepreneurship. Brown University, Providence, Rhode Island.
38. 2018 Conducting Research. **Merck L** and Jay G. Research Curriculum Course, for graduate medical education fellow with Brown University, Department of Emergency Medicine Brown University, Providence, Rhode Island.
39. 2018 Traumatic Brain Injury: Special Considerations in Clinical Research. Resident education lecture, Department of Emergency Medicine Brown University, Providence, Rhode Island.

GRANTS AND CLINICAL RESEARCH:**Active:**

1. 2017 – 2022 SIREN | CORE-EM Hub Alliance
Network for Emergency Care Clinical Trials: Strategies to Innovate EmeRgENcy Care
Clinical Trials Network (SIREN)
NIH 1 U24 NS100673-01 (MPI: Merck, Wright, Papa, Selker, Cairns, Jones)
National Institutes of Health
07/15/2017 – 05/31/2022
Role: Multiple Principal Investigator (5% Effort)

2. 2018 – 2023 Tufts Clinical and Translational Science Institute
NIH/NCATS UL1TR002544 (Selker)
NIH Sub 102188-00001(Merck)
National Institutes of Health
Chair, Tufts Clinical and Translational Research Institute,
Emergency Medicine Expert Panel
09/01/2018-04/30/2023
Role: Co-Investigator (5% Effort)

3. 2018 – 2019 Artificial Intelligence for Modeling and Treatment of Stroke and Traumatic Brain
Injury (AIM Study)
NIH/NCATS 5U24TR001609-02 (Hanley)
Johns Hopkins - Tufts Trial Innovation Center
Subaward #2003844252 (MPI: D Merck and L Merck)
05/01/2018 – 04/30/2019
Role: Multiple Principal Investigator (25% Effort)

4. 2018 – 2023 Brain Oxygen Optimization in Severe Traumatic Brain Injury-Phase 3 (BOOST-3) CCC
NIH / NINDS U01NS099046-01A1 (MPI: Barsan, Dias, Shutter, Yeatts)
International, 60 center, adult and pediatric randomized clinical trial to assess the
effect of Licox technology in goal directed therapy for severe TBI.
07/01/2018 – 06/30/2023
Roles: Hub Principal Investigator,
Executive Committee,
Co-Director, National Clinical Standardization Team (20% effort)

5. 2017 – 2020 Established Status Epilepticus Treatment Trial (ESETT)
NIH / NINDS 1U01NS088034 (Kapur)
09/30/2014 – 08/31/2019
Direct cost/year: per patient enrollment
This study is designed to determine the most effective and/or the least effective treatment
of ESE among patients older than two years by comparing three arms: fosphenytoin
(FOS), levetiracetam (LEV), and valproic acid (VPA).
Role: Site Principal Investigator (effort per pt enrollment)

6. 2018 – The ACCESS Trial, Access to the cardiac catheterization laboratory in patients without ST-segment elevation myocardial infarction resuscitated from out-of-hospital ventricular fibrillation cardiac arrest
NIH/NHLBI 5U01HL133818-02 (Aufderheide and Yannopoulos)
9/15/2016-5/31/2021
Direct cost/year: per patient enrollment
Determine survival to hospital discharge with Modified Ranking Scale Score ≤ 3 in adult 18-75 years old) patients resuscitated from out-of-hospital VT/VF cardiac arrest who do not have ST-segment elevation on emergency department 12-lead ECG (no-STEMI) randomized to receive either: 1) initial CCL admission, or 2) initial ICU admission.
Role: Site Principal Investigator (effort per pt enrollment)
7. 2018 – Southern New England Partnership in Stroke Research, Innovation, and Treatment (SPIRIT)
NIH/NINDS 1U24NS107215-01 (Sheth, Alberts, Furie)
8/15/2018 – 7/31/2019
StrokeNet conducts small and large clinical trials to advance acute stroke treatment, stroke prevention, and recovery and rehabilitation following a stroke. This network of 25 regional centers across the U.S., which involves more than 200 hospitals, is designed to serve as the infrastructure and pipeline for exciting new potential treatments for patients with stroke and those at risk for stroke.
Role: Site Co-Investigator
8. 2019 – Randomized, Controlled, Single-blind Study of Probable Benefit of the *Neuro-Spinal Scaffold™* for Safety and Neurologic Recovery in Subjects with Complete Thoracic AIS A Spinal Cord Injury as Compared to Standard of Care
InVivo Therapeutics: InVivo-100-105
Role: Site Co-Investigator (effort per pt enrollment)
9. 2019 – Diagnostic ability of the handheld near-infrared device (Infrascanner) for the diagnosis of intracranial hemorrhage in Children (Parri)
InfraScan Inc.
2019 – 2020
Role: Site Principal Investigator (effort per pt enrollment)

PRIOR RESEARCH:

- 2018 Spring
Vertex Pharmaceuticals Incorporated VX15-210-101
A Phase 2b/3, Double-blind, Randomized, Placebo-controlled, Multicenter Study to Assess the Efficacy and Safety of VX-210 in Subjects With Acute Traumatic Cervical Spinal Cord Injury
IND Number: 11,672
Role: Site Co-Investigator (effort per pt enrollment)
- 2016 – 2017 ProTECT3D
NIH / NINDS 5 U01 NS062778-05REV (Wright)
Subaward T721754 (MPI: Merck/Merck)

- 9/1/2016 – 6/30/2017 (NCE)
Role: Principal Investigator
- 2016 – 2017
PERSEUS: Targeted Delivery of Multi-Parametric Telemetry Clinical Messages to Mitigate Alarm Fatigue
AHRQ R18 HS022860 (Kobayashi)
10/01/2014 – 09/30/2017
Role: Site Co-Investigator (5% effort)
- 2013 – 2017
Progesterone for the Treatment of Traumatic Brain Injury (ProTECT III)
NIH / U01NS062778 (Wright)
07/01/2009 – 07/30/2017 (NCE)
Direct Award: individual administrative and per patient enrollment
The primary objective is to determine the effect of administering intravenous progesterone (initiated within 4 hours of injury and administered for 72 hours, followed by an additional 24 hour taper) vs. placebo for treating victims of moderate to severe (GCS 12-4) TBI.
Roles: National Clinical Standardization Team
National Publications Committee
Site Principal Investigator
- 2017 – 2020
ESCAPE-NA1 Trial
A Multicenter, Randomized, Double-blinded, Placebo-controlled, Parallel Group, Single-dose Design to Determine the Efficacy and Safety of Intravenous NA-1 in Subjects with Acute Ischemic Stroke Undergoing Endovascular Thrombectomy
NoNO Inc. Krembil Research Institute (Hill)
3/1/2017 – 4/2020
Role: Site Co-Investigator
- 2016 – 2018
Endovascular Therapy Following Imaging Evaluation for Ischemic Stroke 3 (DEFUSE3)
NIH / NINDS 1U01NS092076-01A1 (Albers)
07/01/2016 – 08/31/2020
Direct cost/year: per patient enrollment
Role: Site Co-Investigator
- 2014 – 2018
Automated Ventricular Analysis: Medical Image Analysis in Hydrocephalus
National Center for Advancing Translational Sciences
NIH / UL1 TR000430 (University of Chicago)
Role: Principal Investigator
- 2013 – 2017
Biomarkers of Injury and Outcome in ProTECT III (BIO-ProTECT)
NIH / 1R01 NS071867 (Frankel)
05/01/2011 – 04/30/17
Direct Cost/year: sub-award, per patient enrollment
The major goal of this study is to determine whether protein biomarkers of traumatic brain injury predict outcome and response to treatment with progesterone,
Role: Site Principal Investigator
- 2013 – 2017
NETT - Neurological Emergencies Treatment Trials Hub / Spoke Network
NIH / NINDS 1 U10 NS059032-01 (Baren)

- 09/01/2012 – 05/31/17
Direct cost/year: sub-award, per patient enrollment
This grant provides support to the Neurological Emergency Treatment Trial Network Collaborative NETT – GPSNJ Greater Philadelphia - Southern New Jersey
Role: Site Principal Investigator
- 2012 – 2018
Futility Study of Deferoxamine Mesylate in Intracerebral Hemorrhage (i-DEF)
National Institutes of Health (NIH) / U01 NS074425 (Beth Israel)
10/2014 – 08/2018
The purpose of this study is to determine whether treatment with Deferoxamine Mesylate is of sufficient promise to improve outcome before pursuing a larger clinical trial to examine its effectiveness as a treatment for intracerebral hemorrhage.
Role: Site Co-Investigator
Direct Cost/year: subcontract, per-patient enrollment
- 2010 – 2018
Platelet-Oriented Inhibition in new TIA and minor ischemic stroke (POINT)
National Institutes of Health (NIH) / 1U01NS062835 (Johnston)
09/30/2009 – 06/30/2018
Direct Cost/year: subcontract, per-patient enrollment
The purpose of this study is to determine whether clopidogrel 75 mg/day by mouth after a loading dose of 600 mg is effective in improving survival free from major ischemic vascular events (ischemic stroke, myocardial infarction, and ischemic vascular death) at 90 days when initiated within 12 hours of TIA or minor ischemic stroke onset in patients receiving aspirin.
Role: Site Co-Principal Investigator
- 2015 – 2016
ProTECT3D
NIH / NINDS 5 U01 NS062778-05REV (Wright)
Subaward T129489 (Merck)
12/30/2015 – 6/30/2016 (NCE)
Role: Principal Investigator
- 2010 – 2016
ATACH-II: Antihypertensive Treatment of Acute Cerebral Hemorrhage: A Phase III Randomized Multicenter Clinical Trial of Blood Pressure Reduction for Hypertension in Acute Intracerebral Hemorrhage.
NIH / U01 NS062091 (Qureshi)
08/01/2010 – 07/31/2016
The purpose of this study is to definitively determine the efficacy of early, intensive, antihypertensive treatment using intravenous (IV) nicardipine initiated within 3 h of onset of ICH and continued for the next 24 h in subjects with spontaneous supratentorial ICH.
Role: Site Co-Principal Investigator
Direct Cost/year: sub-award, per patient enrollment
- 2014 – 2016
Validation of ShuntCheck-Micro-Pumper, a noninvasive diagnostic procedure
NIH / NINDS SBIR #5R44NS067772-04 (Fritz, Swoboda)
07/01/2014 – 06/30/2016
Role: Site Principal Investigator
Direct Cost/year: per patient enrollment
- 2015 – 2016
RELAX AHF2, A multicenter, randomized, double-blind, placebo controlled

phase IIIb study to evaluate the efficacy, safety and tolerability of Serelaxin when added to standard therapy in acute heart failure patients.

Novartis Pharmaceuticals
CRLX030A2301 (Metra and Teerlink)
09/01/2015 – 06/01/2016
Role: Site Co-Investigator

- 2014 – 2015 IntelliSport: Musculoskeletal and Closed Head Injury Prevention in Athletic Training
Industry sponsor (Merck, L)
08/01/2014 – 04/01/2015
Role: Principal Investigator
- 2011 – 2012 Informed Consent for Computerized Tomography
Supported in part by PHS Grant UL1 RR025008 (Merck)
Clinical and Translational Science Award Program National Institutes of Health, National Center for Research Resources
08/01/2011 – 08/01/2012
Role: Principal Investigator
- 2010 – 2012 High-Dose Albumin Therapy for Neuroprotection in Acute Ischemic Stroke (ALIAS)
NIH / U01NS040406 (Ginsberg)
Project Period: 07/01/2000 – 05/31/2015
Direct Cost/year: per-patient payments
Role: Site Co-Investigator
- 2009 – 2012 Neurological Emergency Treatment Trial Network (NETT)
NIH / U10NS059032 (Wright)
01/01/2009 – 05/31/2017
The major goal of this project is to build a research network of investigators at metro-Atlanta hospitals for clinical trials to develop effective treatments for patients with neurological emergencies.
Role: Co-Investigator, NETT-SEC (7% effort)
- 2009 – 2012 Traumatic Brain Injury Studies at Grady Memorial Hospital
W81XWH-09-2-0145 (Haley)
09/1/2009 – 4/20/2011 (NCE)
Department of Defense, Telemedicine and Advanced Technology Research Center
 1. Investigation and Comparison of DETECT, ANAM, and Neuropsychological Testing in the Detection of Mild Traumatic Brain Injury.
 2. Goal Directed Therapy for Traumatic Brain Injury.
Role: Co-Investigator (15 % effort)
- 2010 – 2011 Rapid Anticonvulsant Medications Prior to Arrival Trial (RAMPART)
NIH / U01NS056975 (sub-award with University of Michigan)
Project Period: 08/01/2007 – 05/31/2015
Direct Cost/year: per patient payment
Role: Site Co-Investigator (indirect support via NETT award)

OTHER RESEARCH EFFORT and RESEARCH EFFORT IN KIND:

- 2015 – 2017 Efficacy of shunt surgery in normal pressure hydrocephalus: a randomized crossover study (Klinge)
Role: Co-Investigator
Rhode Island Hospital, Providence, Rhode Island & Johns Hopkins University, Baltimore, MA
- 2012 – 2016 Prognosis and Decision Making in Intracerebral Hemorrhage: Family Perspectives. National Institutes of Health (NIH) 1K23AG038731-01A1 (University of Michigan)
Role: Site Co-Investigator
- 2009 – 2011 Utilization of Informed Consent for Computerized Tomography. Emory University School of Medicine, Departments of Emergency Medicine and Radiology, Atlanta, Georgia
- 2006 – 2008 Effect of Emergency Department overcrowding on time to critical testing: EKG and Head CT. University of North Carolina at Chapel Hill, Department of Emergency Medicine, Chapel Hill, North Carolina
- 2005 – 2006 Evaluation of subdural hematoma in the neonatal population. University of North Carolina at Chapel Hill, Department of Computer Science/Medical Imaging, Neurodevelopment, Chapel Hill, North Carolina
- 2005 – 2006 Three dimensional imaging of the neonatal brain. University of North Carolina at Chapel Hill, Department of Computer Science/Medical Imaging, Neurodevelopment, Chapel Hill, North Carolina
- 2002 – 2005 The development of myelomeningocele in post-operative tethered cord patients, a review of the literature. Duke University Medical Center, Durham, North Carolina
- 1999 – 2002 Chiari-pseudotumor Syndrome. Clinical Research Extern- Section of Pediatric Neurosurgery, The University of Chicago Children's Hospital, Chicago, Illinois
- 2001 – 2002 MPH Thesis- Asthma Protocols in an Urban Emergency Department. Mount Sinai Hospital, Chicago Illinois and the Oregon Health and Sciences University, Portland, Oregon
- 1996 – 1998 Clinical case and research assistant- Department of Neurological Surgery, Oregon Health and Sciences University, Portland, Oregon
- 1997 – 1998 Cognitive effects of cerebral spinal fluid shunt failure in hydrocephalic children. Epidemiology and Biostatistics Intern- Department of Neurological Surgery, Oregon Health and Sciences University, Portland, Oregon
- 1997 – 1998 Expansion of dialysis parameters in End-Stage Renal Disease. Epidemiologic Consultant- Optimal Renal Care, Southern California Kaiser Permanente Medical Group, and the Health Care Financing Administration

- 1996 – 1997 Breast and Cervical Cancer Project. Research Assistant- Multnomah County Health Department, Portland, Oregon
- 1996 – 1997 Review of HIV legislation on identification and treatment of high-risk pediatric populations in California and Oregon. Research Assistant- Multnomah County Health Department, Portland, Oregon

FORMAL TEACHING (GRADUATE MEDICAL EDUCATION AND MEDICAL SCHOOL):

- 2018 – current ***Associate Professor of Emergency Medicine, Neurosurgery, and Diagnostic Imaging*** with specialty focus in Neurological Emergencies, Epidemiology, Clinical Research, and Medical Ethics, Alpert Medical School, Brown University.
- 2017 – 2018 ***Assistant Professor of Emergency Medicine, Neurosurgery, and Diagnostic Imaging*** with specialty focus in Neurological Emergencies, Epidemiology, Clinical Research, and Medical Ethics, Alpert Medical School, Brown University.
- 2016 – current ***Director, Translational Research in Medicine, Scholarly Concentration***, Alpert Medical School of Brown University.
- 2018 – current ***Translational Research Mentor*** for Fiona Chen, MD Candidate, Alpert Medical School of Brown University, Providence, RI. Supported by the NIH National Heart, Lung, Blood Institute (NHLBI) training grant, T35 HL094308. Project: Identifying Radiographic Biomarkers for the Prognostication of Traumatic Brain Injury. The overall goal of the grant is to provide medical students with the opportunity to have a mentored research experience under the guidance of Brown University faculty. Designated faculty trainers are the principal investigators for research programs focused on the molecular basis and pathology of cardiovascular, pulmonary, and blood diseases and/or disease outcomes and prevention.
- 2018 – current ***Translational Research Mentor*** for Ian Pan, MD Candidate, Alpert Medical School of Brown University, Providence, RI. Projects: Advanced Image Analysis in Traumatic Brain Injury and Stroke. Artificial Intelligence in Medicine.
- 2018 – current ***Clinical Instructor, Med Ed BIOL3640 and Med Ed BIOL3650 Doctoring Course***, Preclinical program designed to combine instruction and assessment in both clinical skills and professional development. Alpert Medical School of Brown University. *Independent mentoring of doctoring students in the emergency department, per request.*
- 2012 – 2017 ***Assistant Professor of Emergency Medicine and Diagnostic Imaging***, with specialty focus in Neurological Emergencies, Epidemiology, Clinical Research, and Medical Ethics, Alpert Medical School, Brown University.
- 2016 – current ***Clinical Research Mentor*** for Krishna Nand Keshava Murthy, PhD Candidate, Department of Engineering, Brown University, Providence, RI; Imaging Data Scientist, Memorial Sloan Kettering Cancer Center, NY, NY. Project: Advanced Image Analysis in Traumatic Brain Injury.

- 2015 – current **Clinical Research Mentor** for Owen Leary, BS MD candidate, Program for Liberal Medical Education (PLME), Brown University / Alpert Medical School of Brown University, Providence, RI. Project: Advanced Image Analysis in Traumatic Brain Injury.
- 2017 **Instructor**, Lifespan Medical Simulation Center, PGY-2 Code / Cardiopulmonary Arrest Response Training. Alpert Medical School of Brown University, Providence, RI
- 2015 **Instructor**, Clinical Skills Doctoring Course, Clinical Skills Assessment, Lumbar Puncture Session. Alpert Medical School of Brown University, Providence, RI
- 2014 – current **Mentor** for Madeline Cosgriff, visiting student intern, Carleton College, Northfield Minnesota. Project: Pediatric Hydrocephalus. Alpert Medical School of Brown University, Providence, RI
- 2014 **Instructor**, Medical student suturing laboratory. Alpert Medical School of Brown University, Providence, RI
- 2014 **Oral Board Examiner**, Resident Physician Oral Board Exams. Alpert Medical School of Brown University, Providence, RI
- 2013 **Oral Board Examiner**, Resident Physician Oral Board Exams. Alpert Medical School of Brown University, Providence, RI
- 2010 – 2011 **Instructor**, Safe a Life and Protect Your Own, Emory University School of Medicine, Atlanta, Georgia
- 2009 **Instructor**, Resident Airway Course, Emergency Medicine Residency, Emory University School of Medicine, Atlanta, Georgia
- 2009 – 2012 **Instructor**, Procedural Skills in Emergency Medicine. Emory University School of Medicine, Atlanta, Georgia

Former Student Mentees:

- 2015 – 2016 **Mentor** for Erin O'Donnell, Research Assistant, Division of Emergency Neurosciences. Matriculating to University of Saint Joseph, Physician's Assistant Studies, West Hartford, CT. Anticipated graduation, 2019 – with focus on Emergency Medicine
- 2014 – 2015 **Mentor** for Michael Lunney, Graduate Student, Georgia State University, Athens, Georgia. Project: Master of Public Health, Concentration in Health Management and Policy. Thesis: Effect of progesterone administration in traumatic subarachnoid hemorrhage. Atlanta, GA
- 2013 – 2015 **Mentor** for My (Virginia) Tran, Research Assistant, Division of Emergency Neurosciences. Matriculated to Harvard Medical School, Boston, MA. Anticipated graduation, 2019 – with focus on Emergency Medicine
- 2011 – 2012 **Mentor** for Michael Holdsworth, Medical Student, Emory University

Project: Use of Informed Consent for Computerized Tomography, Emory University School of Medicine, Atlanta, Georgia. Residency Match: Emergency Medicine/Pediatric Emergency Medicine – University of Maryland Medical Center, Baltimore, MD

- 2011 – 2012 **Mentor** for Jordan Kaylor, Medical Student Emory University
Project: The Effect of Electronic Charting and Physiologic Monitoring on Treatment of Traumatic Brain Injury in an Urban Emergency Department, Emory University School of Medicine, Atlanta, Georgia. Residency Match: Emergency Medicine – Northwestern Memorial Hospital, Chicago, Illinois

- 2011 – 2012 **Mentor** for Joshua Keithley, Medical Student Emory University
Project: Use of a Video Educational Module as an Adjunct to Written Informed Consent for Computerized Tomography, Emory University School of Medicine, Atlanta, Georgia. Residency Match: Emergency Medicine – John Peter Smith Hospital, Fort Worth, TX

- 2010 – 2011 **Mentor** for Margaret Gipson, Medical Student, Emory University
Project: Informed Consent for Computerized Tomography, Emory University School of Medicine, Atlanta, Georgia. Residency Match: Emergency Medicine – Carolinas Medical Center, Charlotte, North Carolina

- 2010 – 2011 **Mentor** for Samuel Chang, Medical Student, Emory University
Project: Goal Directed Therapy for Traumatic Brain Injury, Emory University School of Medicine, Atlanta, Georgia. Residency Match: Emergency Medicine – Carolinas Medical Center, Charlotte, North Carolina

- 2009 – 2012 **Resident Advisee:** Heather Gunn M.D. Emergency Medicine Residency, Emory University School of Medicine, Atlanta, Georgia

Certification:

2010	American Board of Emergency Medicine	Board Certified
2012	Active License:	Rhode Island Medical Board
2007	Active License:	North Carolina Medical Board
2008	Active License:	Georgia Medical Board
2014	NIH Stroke Scale (NIHSS)	Certification
2010	ABCD2 Training	Certification
2014	Modified Rankin Scale (mRS)	Certification
2005	USMLE Step III	Passed
2002	USMLE Step II	Passed
2000	USMLE Step I	Passed
BLS/ACLS/ATLS/PALS/NALS		Certification

Community Work:

- 2014 Staying Safe and Healthy. Lecture to children at the Early Childhood Center, Jewish Alliance of Greater Rhode Island, Providence, Rhode Island
- 2013 Staying Safe and Healthy, Preventing Head Injury. Lecture to children at the Early Childhood Center, Jewish Alliance of Greater Rhode Island, Providence, Rhode Island
- 2013 Exception from Informed Consent and Research in Traumatic Brain Injury. Conference with Brain Trauma Survivors, Neurorestorative Care, Charlestown, Rhode Island
- 2012 Staying Safe and Healthy. Lecture to children at the Early Childhood Center, Jewish Alliance of Greater Rhode Island, Providence, Rhode Island
- 2012 – 2015 Town Council: Environmental Conservation Commission, Barrington, Rhode Island

Media Public Service Education:

- Providence en Espanol: Exception from Informed Consent and the ESETT Clinical Trial
Article, 12/2015 Rhode Island Hospital y Hasbro Children's Hospital participarán en un ensayo investigativo sobre medicinas anticonvulsivas administradas en salas de emergencia.
- Newport Daily News Exception from Informed Consent and the ESETT Clinical Trial
Public Service Announcement, 11/2015
- Rhode Island Medical Journal Exception from Informed Consent and the ESETT Clinical Trial
Public Service Announcement, 11/2015
- The Independent Exception from Informed Consent and the ESETT Clinical Trial
Public Service Announcement, 11/2015
- Latino Public Radio Traumatic Brain Injury and Exception from Informed Consent Research
Interview, 7/2013 http://www.lpri.org/inicio/index.php?categoryid=65&p2_articleid=23534
- Providence Journal Newspaper Traumatic Brain Injury
Interview, 8/2013
- Channel 10 News Traumatic Brain Injury
Interview, 8/2013
- Rhode Island Medical Journal The ProTECTIII Clinical Trial
Referenced in, 7/2013 <https://www.rimed.org/rimedicaljournal/2013-07/2013-07-55-news-briefs.pdf>

Research Focus and Fields of Specialization:

1. Clinical Trials in Acute Care Research
2. Critical Care in the Emergency Department
3. Pediatric and Adult Neurological Emergencies
4. Radiology Utilization and Safety in the Emergency Department
5. Epidemiology and Health Policy