### The National Academies of

### SCIENCES · ENGINEERING · MEDICINE

Accelerating Progress in Traumatic Brain Injury Research and Care
Day 2: March 18, 2021

#### **WORKSHOP SPEAKER BIOGRAPHIES**



Donald Berwick, M.D., M.P.P., FRCP (London) (NAM) (Committee Chair) is president emeritus and senior fellow at the Institute for Healthcare Improvement and former administrator of the Centers for Medicare & Medicaid Services. A pediatrician by background, Dr. Berwick has served on the faculty of the Harvard Medical School and Harvard School of Public Health, and on the staffs of Boston's Children's Hospital Medical Center, Massachusetts General Hospital, and the Brigham and Women's Hospital. He has also served as vice-chair of the U.S. Preventive Services Task Force, the first "independent member" of the American Hospital Association Board of Trustees, and chair of the National Advisory Council of the Agency for Healthcare

Research and Quality. He served two terms on the Institute of Medicine's (I.O.M.'s) Governing Council, was a member of the I.O.M.'s Global Health Board, and served on President Clinton's Advisory Commission on Consumer Protection and Quality in the Healthcare Industry. Recognized as a leading authority on health care quality and improvement, Dr. Berwick has received numerous awards for his contributions. In 2005, he was appointed "Honorary Knight Commander of the British Empire" by Her Majesty, Queen Elizabeth II, in recognition of his work with the British National Health Service. Dr. Berwick is the author or co-author of over 160 scientific articles and six books.

# TBI CARE GAPS AND OPPORTUNITIES: PROVIDER PERSPECTIVES ON THE ACUTE-STAGE CONTINUUM OF CARE



**Thomas M. Scalea, M.D.** *(Study committee)* is physician-in-chief at the R Adams Cowley Shock Trauma Center at the University of Maryland. As director, Dr. Scalea serves at the level of chairman within the school and hospital. As physician-in-chief, he is responsible for clinical care in all medical administrative functions of Shock Trauma. Under Dr. Scalea's leadership, his program has expanded clinical services, and his faculty is now responsible for the bulk of emergency general surgery patients at the University of Maryland Medical Center. His group has built a region-wide critical care program and are now responsible for nine Intensive Care Units and over 100 beds. Additionally, Dr. Scalea has reorganized both

research and education in the Program in Trauma. Several years ago, he also established the G.O. Team, a rapid response team consisting of an anesthesiologist, surgeon, critical care medicine specialist, and a certified registered nurse anesthetist. The G.O. team serves as a specialized component of Maryland's statewide emergency medical system to expedite critical care interventions. In 2008 and 2011, Dr. Scalea traveled to Iraq and Afghanistan to observe the Wounded Warrior Care System in the field, during critical care air transport, and in military hospitals to provide recommendations on how to improve the system, as well as to determine how to continually refine trauma training. Dr. Scalea also served as a Senior Visiting Surgeon at Landstuhl Regional Medical Center, providing care for injured soldiers as they were evacuated from Iraq.



James Robinson is the Senior Director of Resident Risk Management, Safety, and Preparedness for Spectrum Retirement Communities, L.L.C. A veteran of emergency medical services, James served as a paramedic from 1993 to 2005 and Assistant Chief for Denver Health E.M.S. from 2005 until 2019, overseeing 911 Emergency Medical Services (E.M.S.) delivery for the City and County of Denver, from E.M.S. dispatch to patient delivery at receiving hospitals. He was Denver's medical planning

lead for the 2008 Democratic National Convention, serving on the United States Secret Service Steering Committee for the convention and associated events. He served as co-chair of the Denver UASI/Colorado North Central All-Hazards Region's E.M.S. subcommittee, on the State of Colorado's Public Health and Medical Advisory Committee, and as the E.M.S. lead for the Colorado Emergency Management Association. He has been a member of the Department of Homeland Security Interagency Board Active Shooter Working Group, the NFPA EMS Committee, and Past President of the International Association of E.M.S. Chiefs. James holds a master's degree in national security studies and homeland security from the Naval Postgraduate School's Center for Homeland Defense and Security, and is a graduate of Cohort 6 of the National Preparedness Leadership Initiative—a partnership between the Harvard Kennedy School of Government and the TH Chan School of Public Health. He is also trained in the Toyota Production Systems Lean methodologies and has written and spoken on their use in E.M.S.



**David Wright, M.D.,** is a tenured Professor and the Chair of the Department of Emergency Medicine at Emory University School of Medicine. He is a board-certified emergency medicine physician practicing at Emory-affiliated hospitals and Grady Memorial Hospital, Atlanta's premier Level 1 Trauma Center. He is actively involved in both the preclinical and clinical assessments of traumatic brain injury, stroke, and other acute neurological conditions. He was the P.I. of the ProTECT III multicenter clinical trial of progesterone for acute traumatic brain injury and serves as the southeastern Hub P.I. of the Neurological Emergencies

Treatment Trials network, Co-PI of the Georgia StrokeNet network, and Hub P.I. for the newly funded Strategies To Innovate Emergency Care Clinical Trials Network (SIREN). He has extensive clinical trial leadership and operational experience. He holds Adjunct appointments in the Department of Biomedical Engineering at the Georgia Institute of Technology, Rollins School of Public Health, and the Nell Hodgson Woodruff School of Nursing.



**Deborah M. Stein, M.D., M.P.H.,** earned her Medical Degree from Albert Einstein College of Medicine and her Masters of Public Health from Johns Hopkins University Bloomberg School of Public Health. She completed her general surgery residency at Long Island Jewish Medical Center, Albert Einstein College of Medicine and her fellowship in Trauma/Surgical Critical Care at the University of Maryland Medical Center. She is a fellow in the American College of Surgeons and American College of Critical Care Medicine. Dr. Stein is certified by the American Board of Surgery in General Surgery with subspecialty certification in Surgical Critical Care. She has also earned subspecialty certification from the United

Council for Neurologic Subspecialties in Neurocritical Care. Upon completion of her fellowship in 2004, Dr. Stein joined the faculty at the University of Maryland School of Medicine, where she served as the R Adams Cowley Professor in Shock and Trauma and Chief of Trauma. Dr. Stein left Maryland and came to UCSF in 2019 to join the faculty as Professor and Chief of Surgery at the Zuckerberg San Francisco General Hospital and Trauma Center and Vice-Chair in the Department of Surgery. Dr. Stein currently serves as Principal Investigator or Co-PI on four federally funded grants and has authored over 200 peer-

reviewed articles. Her national service includes serving as Secretary, Executive Board Member for the Eastern Association for the Surgery of Trauma, Chair of the Research Committee for the American College of Surgeons' Committee on Trauma, and Chair of the Geriatric Trauma/A.C.S. Committee for the American Association for the Surgery of Trauma. She also serves on the Editorial Board for the Journal of Trauma and Acute Care Surgery and is a member of the Trauma, Burn, and Critical Care Subspecialty Board for the American Board of Surgery.



Karen McQuillan, RN, CNS-BC, CCRN, FAAN, received her Bachelors of Nursing and Masters of Science in Trauma/Critical Care Nursing from the University of Maryland, Baltimore. She has worked for the past 34 years as a Clinical Nurse Specialist at the R Adams Cowley Shock Trauma Center at the University of Maryland Medical Center in Baltimore, Maryland. Karen has lectured on neurological and trauma topics at numerous regional, national, and international conferences. She has also mentored other nurses as speakers and authors. Also well published on neurological and trauma topics, Karen has reviewed and edited many manuscripts and served as lead editor for the text "Trauma Nursing: From

Resuscitation Through Rehabilitation" (3rd,  $4^{th}$ , and 5th editions). She has served as an investigator on a number of studies exploring various aspects of trauma nursing care. Karen has worked in countries around the world, including India and Brazil, to foster improvements in trauma care. In addition, she is a Past President for the American Association of Critical Care Nurses.

## TBI CARE GAPS AND OPPORTUNITIES: PROVIDER PERSPECTIVES ON THE POST-ACUTE CONTINUUM OF CARE



Christina Master, M.D. (Study committee) is a Professor of Clinical Pediatrics at the University of Pennsylvania Perelman School of Medicine and a pediatric and adolescent primary care sports medicine specialist, as well as an academic general pediatrician at the Children's Hospital of Philadelphia (CHOP). She completed her undergraduate studies at Princeton University with an A.B. in Molecular Biology and graduated summa cum laude from the University at Buffalo School of Medicine and Biomedical Sciences. She completed pediatric residency training with an additional year as chief resident at CHOP, where she subsequently served for 14 years as the Associate and Vice Program Director for the Pediatric

Residency Program prior to completing a sabbatical year of sports medicine fellowship training at the Hospital of the University of Pennsylvania in 2010. She is board-certified in pediatrics, sports medicine, and brain injury medicine, and is also an elected fellow of the American College of Sports Medicine. She treats over 800 children, youth, and young adults with concussions annually in her clinical sports medicine practice while also continuing in her 28th year of general academic pediatric practice. She is the cofounding director of the Minds Matter Concussion Program, a CHOP Frontier Program that provides comprehensive cutting edge multi-disciplinary clinical care and rehabilitation for concussion, community advocacy, and outreach while advancing the field of concussion and mild traumatic brain injury in children, youth, and young adults through translational clinical research. Her particular research emphasis focuses on furthering our understanding of visual deficits following a concussion, their role in those with persistent post-concussive symptoms, and as a target for active intervention and treatment, as well as developing objective physiological measures as quantitative biomarkers of injury and recovery.



Alberto Esquenazi, M.D., is a member of Einstein Healthcare Network's Board of Trustees. He is also a member of the American Academy of Physical Medicine and Rehabilitation, the American Society of Biomechanics Gait and Clinical Movement Analysis Society, and the International Society for Prosthetics and Orthotics. He is a professor of rehabilitation at Temple University School of Medicine, Thomas Jefferson University – Jefferson Medical College, and Drexel University College of Medicine. He serves as director of the Annual Inter-City Gait and Orthotics course sponsored by the Temple/MossRehab physical medicine and rehabilitation residency training program. He was a member of the Task Force on Medical

Rehabilitation Research for the U.S. Department of Health and Human Services. He is a fellow of the American Academy of Cerebral Palsy and Developmental Medicine and AAPM&R. Dr. Esquenazi has been recognized several times by Philadelphia magazine as one of the region's "Top Docs" and received the Distinguished Clinician award from AAM&R and Pennsylvania Association of Rehabilitation Facilities. He has published many original papers, book chapters and has presented nationally and internationally on amputation, rehabilitation, orthosis, gait analysis, and spasticity management. He's an active researcher in technology and rehabilitation.



Flora Hammond, M.D., is a board-certified Physical Medicine and Rehabilitation physician (Physiatrist) who is an active clinician, researcher, and administrator. She completed her medical degree at Tulane University School of Medicine, Physical Medicine and Rehabilitation residency at Baylor College of Medicine, and brain injury medicine fellowship at the Rehabilitation Institute of Michigan. She is professor and Chair of Physical Medicine and Rehabilitation at Indiana University School of Medicine; Chief of Medical Affairs and Brain Injury Medical Co-Director at the Rehabilitation Hospital of Indiana. She is Project Director of the Indiana Traumatic Brain Injury Model System and Chair of the T.B.I. Model Systems Program Executive Committee. Dr. Hammond's

research and advocacy focus on the long-term issues confronting individuals with disabilities and treatment effectiveness. She has authored more than 180 peer-reviewed publications. Dr. Hammond has received several awards acknowledging her contributions, including the 2001 Association of Academic Physiatrists Young Academician Award, the 2011 Brain Injury Association of America William Caveness Award for national and international research contributions, the 2016 Robert L. Moody Prize for Distinguished Initiatives in Brain Injury Rehabilitation and Research, and the 2017 American Academy of Physical Medicine and Rehabilitation Distinguished Member Award.



Mary Voegeli, FNP-BC, M.S.N., CRRN, CBIS, is a nurse practitioner in the department of Physical Medicine and Rehabilitation at Froedtert and the Medical College of Wisconsin. She is part of the inpatient Traumatic Brain Injury Consult Service as well as a core member of the Mild Traumatic Brain Injury Clinic. Ms. Voegeli is also a per diem nurse practitioner at Sacred Heart Rehabilitation Institute. Mary has been involved in the field of traumatic brain injury since 1983. She has been highly involved with the Brain Injury Alliance of Wisconsin for several years as Vice President of the Board of Directors, as well as a spokesperson, member of the state brain injury planning committee, and volunteer for charity outings. She has presented at numerous traumatic brain injury conferences. Ms.

Voegeli was the recipient of the Clinical Service Award from the Brain Injury Association of Wisconsin in 2011, as well as the recipient of the Clinical and Educational Contribution to the MCW PM&R Residency Program award in 2014. She received awards of excellence in Patient Care on behalf of the APP

Coordinating Council 2015 Froedtert and the Medical College of Wisconsin and the Neuroscience Excellence Award 2016 Froedtert and the Medical College of Wisconsin. Mary works tirelessly for her patients and families who need a voice. Traumatic Brain Injury rehabilitation is her life's work.



Monica A. Lichi, MS Ed., P.C., M.B.A., CCRP, is Director for the Ohio Valley Center for Brain Injury Prevention and Rehabilitation at The Ohio State University Wexner Medical Center, a center dedicated to conducting research, providing education, and developing programs to improve the quality of life of persons who experience a traumatic brain injury. She is also Director for the Ohio Brain Injury Program, whose mission is to advance prevention and treatment that will improve the lives of Ohioans

impacted by traumatic brain injury. She serves on the Board of Directors for the National Association of State Head Injury Administrators, most recently as President and (past) Finance Chair. Monica received her Master of Science in Education and has been a Licensed Professional Counselor since 2007. Monica also holds a Master of Business Education degree. In 2016, Monica achieved the Certification of Clinical Research Professionals from the Society of Clinical Research Associates. Prior to joining The Ohio State University Wexner Medical Center, she had nine years of experience working in the community mental health system of Franklin County.

#### **RESEARCH TO FILL IDENTIFIED TBI CARE GAPS**



Jessica Gill, Ph.D., R.N., (Study committee) is a senior investigator with the National Institute of Nursing Research (NINR) at the National Institutes of Health (N.I.H.). She formerly also served as deputy director of NINR. Dr. Gill's current research focuses on revealing the mechanisms underlying differential responses to combat trauma and traumatic brain injury (T.B.I.). Dr. Gill is a leader in research focused on identifying blood-based biomarkers that predict poor recovery from T.B.I.s, concussions, and blasts. She leads biomarker methods and clinical trial design within national and international funded consortiums and analyzes these samples in her laboratory at

N.I.H. Specifically, her laboratory has developed novel methods to understand central processes using peripheral blood, allowing for a better understanding of the mechanisms of neuronal recovery from brain injuries. In her research, Dr. Gill combines biological methods—including proteomics and epigenetics—with neuronal imaging to follow patients during their immediate recoveries and for years afterward to better understand risk and resiliency factors related to clinical outcomes.



Roger J. Lewis, M.D., Ph.D. (NAM), is a Professor and Chair in the Department of Emergency Medicine at Harbor-UCLA Medical Center. Dr. Lewis grew up in Southern California and completed his undergraduate, medical, and graduate training at Stanford University. Dr. Lewis is currently a Professor at the David Geffen School of Medicine at UCLA and the Vice-Chair for Academic Affairs in the Department of Emergency Medicine at Harbor-UCLA Medical Center. His academic interests center on clinical research methodology, including adaptive and Bayesian trial design, and he participates in the design and analysis of many laboratory, clinical, and health services research studies. His areas of interest include adaptive and Bayesian clinical trials;

translational, clinical, health services and outcomes research; emergency department crowding and disaster preparedness; interim data analysis; the role and function of data monitoring committees; and difficulties surrounding informed consent in emergency research studies.



David Brody, M.D., Ph.D., was named Director of the Center for Neuroscience and Regenerative Medicine and joined the United States Uniformed Services University faculty in August of 2017. His primary appointment is as a Professor of Neurology in the F. Edward Hebert School of Medicine. Dr. Brody is a board-certified neurologist with both a research and a clinical specialization in T.B.I. and neurodegenerative diseases. Prior to his directorial and faculty position, Dr. Brody was the Norman J. Stupp Professor of Neurology at the Washington University School of Medicine in St. Louis. Dr. Brody was also the Washington University site director for the National Football League Neurological player care program. Dr.

Brody earned a B.A. in Biological Sciences from Stanford University in 1992 and his M.D. and Ph.D. from The Johns Hopkins School of Medicine in 2000. He completed his internship and neurology residency at Washington University. Dr. Brody's achievements have been recognized with several awards, including a Career Development Award from the National Institute of Neurological Disorders and Stroke (NINDS), a Burroughs Wellcome Career Award in the Biomedical Sciences, two large Department of Defense awards, and a National Institutes of Health (N.I.H.) R01 award. His clinical monograph entitled *Concussion Care Manual: A Practical Guide* was published by Oxford University Press in 2014. Dr. Brody is a member of the Editorial Board of the Journal of Neurotrauma and Acta Neuropathologica and a permanent member of the N.I.H. Acute Neural Injury and Epilepsy study section. Dr. Brody's research focuses on accelerating implications for better diagnosis, treatment, and outcomes of traumatic brain injury in civilian and military populations.



Kristine Yaffe, M.D. (NAM), attended Yale University for her undergraduate degree and the University of Pennsylvania for her medical degree. She then completed residencies in both Neurology and Psychiatry at the University of California, San Francisco. Dr. Yaffe is the Scola Endowed Chair and Vice-Chair, Professor of Psychiatry, Neurology, and Epidemiology, and Director of the Center for Population Brain Health at the University of California, San Francisco. In her research, clinical work, and mentoring, she has directed her efforts towards improving the care of patients with Alzheimer's and other dementias. Dr. Yaffe is an internationally recognized expert in the epidemiology of dementia and cognitive aging. She serves as P.I. of almost a dozen N.I.H., Department of Defense, Veterans Administration, and foundation grants and is the foremost

leader in identifying modifiable risk factors for dementia. She was the first to determine that potentially 30 percent of dementia risk is preventable. She pioneered early investigations on the roles of estrogen, physical activity, and cardiovascular factors in dementia risk, and more recently, her research group has led work on the connections between traumatic brain injury and risk of developing dementia and other neurodegenerative outcomes. With almost 600 peer-reviewed articles dedicated to improving population brain health (H-index=144), her transformative research bridges neurology, psychiatry, and epidemiology and has formed the cornerstone for dementia prevention trials worldwide. In recognition of her groundbreaking work, Dr. Yaffe received the Potamkin Prize for Alzheimer's Research in 2017 and was elected to the National Academy of Medicine in 2019.



Hilaire Thompson, Ph.D., RN, ARNP, FAAN, FGSA, is the Joanne Montgomery Endowed Professor in Biobehavioral Nursing and Health Informatics at the University of Washington-Seattle. She also co-directs the Education and Training core of the Harborview Injury Prevention and Research Center. Her program of research focuses on both preventing and improving outcomes from traumatic brain injury, with a particular emphasis on older adults. She also maintains an active clinical practice as an acute care nurse practitioner.



Ramona Hicks, Ph.D., is the Director of Science and Technology at One Mind, a nonprofit organization dedicated to the acceleration and implementation of research to promote brain health, and an Affiliate Professor in the Department of Neurological Surgery at the University of Washington. Prior to joining One Mind, she held faculty appointments at the University of Kentucky and the University of Washington, where she studied the effects of pharmacological and non-pharmacological interventions on hippocampal function and recovery following T.B.I. Dr. Hicks also served as a Program Director at the National

Institute of Neurological Disorders and Stroke (NINDS), where she managed the T.B.I. research portfolio and led numerous interagency and international research initiatives.