

Military Trauma Care's Learning Health System and its Translation to the Civilian Sector

Committee

Donald M. Berwick

Chair

Donald M. Berwick, M.D., M.P.P., FRCP, President Emeritus and Senior Fellow, Institute for Healthcare Improvement, is also 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 US 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 (IOM's) Governing Council, was a member of the IOM'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 the Queen of England 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.

Ellen P. Embrey

Member

Ellen Embrey, is Managing Partner of Stratitia, Inc., and 2c4 Technologies, Inc.. Stratitia is a strategy and management consulting firm specializing in supporting clients that serve the healthcare, national security, and information technology sectors , and 2c4 Technologies specializes in providing health sector IT solutions and services. She also is a counselor in The Cohen Group, a firm that provides global business consulting services and advice on tactical and strategic opportunities in virtually every market. Ms. Embrey has extensive executive and program leadership experience in the executive branch of the federal government. In her last federal role, she served as the Assistant Secretary of Defense (Health Affairs) and the Director, TRICARE Management Activity during the presidential transition period in 2009-2010. In that capacity, she led and managed the Military Health System, a \$47 billion/year defense health program employing more than 200,000 health professionals serving more than 9.6 million service members, retirees and their families in more than 70 hospitals and 500 clinics and laboratories around the globe. As Deputy Assistant Secretary of Defense (Force Health Protection and Readiness) for eight years, Ms. Embrey orchestrated significant improvements in Department of Defense policies and programs from 2002-2009, affecting deployment and combat casualty medicine, health promotion and preventive medicine, medical readiness and public health emergency preparedness and response. As DoD's "line of action" lead for addressing traumatic brain injuries and/or post traumatic stress disorder, she led collaborative efforts to identify gaps and prioritize investments in TBI & PTSD research, align clinical best practices of DoD and VA, and establish new US ICD9 codes for traumatic brain injury diagnoses and treatment based on DoD/VA experience. At the Secretary of Defense's request, Ms. Embrey led a landmark study of Sexual Assault in the Military, making recommendations that led to widespread reforms in this area across the Department. Throughout 2001, during the presidential transition period, Ms. Embrey served as the Assistant Secretary of Defense for Reserve Affairs, shaping policies affecting the readiness and use of the National Guard and Reserve in both federal and state status. From 2000 to 2001, she served as Chief of Staff of that office, and from 1998 to 2001, as Deputy Assistant Secretary of Defense for Military Assistance to Civil Authorities, developing policies that shaped the role of the National Guard and Reserve components in supporting homeland security, disaster preparedness, and national disaster response capabilities, including advising the president on such matters in the days and weeks following September 11, 2001. Over her distinguished 35 year federal career, Ms. Embrey received many awards, the highest of which include two Secretary of Defense Distinguished Civilian Service Awards, in 2001 and 2004, and two Presidential Meritorious Executive Rank Awards, in 2006 and 2009.

Sara Goldkind

Member

Sara Goldkind, M.D., M.A. is currently an independent Research and Clinical Bioethics Consultant. She was formerly the Senior Bioethicist at The Food and Drug Administration in the Office of Good Clinical Practice located within the Office of the Commissioner. In this position, she served as an Agency expert for medical ethics and participates in the planning, management, and implementation of bioethics activities and policies across FDA. These activities include ethics consultation, guidance and policy development, educational programming, and evaluation of the ethical aspects of research involving human subjects, including clinical trial oversight. Dr. Goldkind came to FDA in 2003. Prior to coming to FDA, she was involved in clinical consultative ethics, policy development and education both in the clinical setting as well as academia. She is a board certified internist. Dr. Goldkind completed a fellowship in clinical medical ethics at the University of South Florida-School of Medicine, where she was on the faculty within the Department of Medicine and obtained a Master's Degree in religious studies focusing on comparative religious ethics and public policy.

Adil Haider

Member

Adil Haider, M.D., M.P.H. is a clinically active trauma surgeon, widely- published researcher and the Kessler Director for the Center for Surgery and Public Health, a joint initiative of Brigham and Women's Hospital, Harvard Medical School and Harvard TH Chan School of Public Health. Prior to accepting this position, he was Director of the Center for Surgery Trials and Outcomes Research and Associate Professor of Surgery, Anesthesiology and Critical Care Medicine at the Johns Hopkins School of Medicine. His research focuses on long term clinical and functional outcomes after trauma, race and gender disparities in health care, optimal treatment of trauma/critically ill patients in resource poor settings, and advanced analytics for outcomes research using large databases. Dr. Haider recently led a team of researchers that conducted a nationwide study on the impact of contemporary military practices on civilian trauma care that identified successes and barriers in translating the military's experience to the civilian setting.

John B. Holcomb

Member

COL (ret) John Bradley Holcomb, M.D., F.A.C.S., has been a leader in trauma surgery and related research at the University of Texas Health Science Center in Houston since his 2008 retirement from the Army. He serves as director of the Center for Translational Injury Research, chief of the Division of Acute Care Surgery, professor and vice chair of the Department of Surgery, and as the Jack H. Mayfield, M.D., Chair in Surgery. In 1993 Holcomb was deployed with Special Operations to Somalia, where he cared for soldiers who were severely wounded on the battlefield of Mogadishu in the violent Black Hawk Down episode. The experience had a profound impact, spurring his decision to dedicate his career to trauma surgery and research aimed at improving outcomes for the injured. In 1997 Holcomb became chief of the Military Trauma Research Branch of the U.S. Army Institute of Surgical Research (USAIR). In 2001, he completed a surgical critical care fellowship at the University of Texas at Houston while serving as the trauma advisor to the U.S. Special Operations Command. From 2002 until his retirement from the military in 2008, he served as both commander of USAIR and trauma consultant to the Army Surgeon General. Because of Holcomb's leadership, the military began issuing life-saving tourniquets to every member of the U.S. Armed Forces deployed in combat zones. He initiated the use of hemostatic dressings in place of gauze dressings to stem bleeding more effectively, introduced major advances in resuscitation, and greatly improved how the military transports wounded service personnel to the most appropriate field hospital. Holcomb's achievements and dedication to service men and women earned him numerous military honors including the Honorary Medal for Combat Surgical Care, the Army's Development Achievement Award for Leadership and Excellence and the U.S. Special Forces Command Medal. In 2008, the American Heart Association presented Holcomb with its Lifetime Achievement Award in Trauma Resuscitation Science.

Brent C. James

Member

Brent C. James, MD, MStat is the Chief Quality Officer and Executive Director, Institute for Health Care Delivery Research at Intermountain Healthcare. Intermountain is an integrated system of 23 hospitals, almost 150 clinics, a 700+ member physician group, and an HMO/PPO insurance plan jointly responsible for more than 500,000 covered lives serving patients in Utah, Idaho, and, at a tertiary level, seven surrounding States. Brent James is known internationally for his work in clinical quality improvement, patient safety, and the infrastructure that underlies successful improvement efforts, such as culture change, data systems, payment methods, and management roles. He is a member of the National Academy of Science's Institute of Medicine (and participated in many of that organization's seminal works on quality and patient safety). Dr. James was recently recognized for his pioneering work in applying quality improvement techniques that were originally developed by W. Edwards Deming and others and awarded the 2011 Deming Cup. The award is given annually to an individual who has made outstanding contributions in the area of operations and has established a culture of continuous improvement within his or her respective organization. Dr. James was instrumental in helping create and implement a "system" model at Intermountain, in which physicians study process and outcomes data to determine the types of care that are most effective. He holds faculty appointments at the University of Utah School of Medicine (Family Medicine and Biomedical Informatics), Harvard School of Public Health (Health Policy and Management), and the University of Sydney, Australia, School of Public Health. Through the Intermountain Advanced Training Program in Clinical Practice Improvement (ATP), he has trained more than 3500 senior physician, nursing, and administrative executives, drawn from around the world, in clinical management methods, with proven improvement results (and more than 30 "daughter" training programs in 6 countries). Before coming to Intermountain, he was an Assistant Professor in the Department of Biostatistics at the Harvard School of Public Health, providing statistical support for the Eastern Cooperative Oncology Group (ECOG); and staffed the American College of Surgeons' Commission on Cancer. He holds Bachelor of Science degrees in Computer Science (Electrical Engineering) and Medical Biology; an M.D. degree (with residency training in general surgery and oncology); and a Master of Statistics degree. Dr. James serves on several non-profit boards of trustees, dedicated to clinical improvement.

Jorie Klein

Member

Jorie Klein is the Director of the Trauma Program, Disaster Management, and North Texas Poison Center for Parkland Health & Hospital System in Dallas, Texas. She has a long history of exemplary trauma leadership at the state, regional, and national levels including: President of the Texas EMS, Trauma, and Acute Care Foundation; Vice-Chair of the Governor's Emergency/Trauma Advisory Council's Trauma System (Texas); Chair of the Texas Hospital Association's Policy Committee on Trauma and Emergency Services; and Chair of the Texas Hospital Association's Trauma Technical Advisory Group. Ms. Klein is a past president of the Society of Trauma Nurses (STN) and has also served on numerous STN committees, from the Annual STN Conference Committee (which she chaired from 1998 - 2004) to ATCN Regional Chair and State Chair for Texas. She has received many awards for her service to the trauma community, most recently Governor's EMS/Trauma Council's Journey of Excellence Award (2009). Ms. Klein has authored papers, book chapters, and courses on emergency preparedness, disaster management, mechanism of injury, decision-making in trauma care, and preparing for a trauma site visit, among others. She has been a frequent invited speaker on a vast array of trauma topics for both national and international audiences.

Douglas Kupas

Member

Douglas Kupas, M.D., serves as the Associate Chief Academic Officer for Simulation and Medical Education for Geisinger Health System where he also practices as an emergency physician. He is board certified in Emergency Medicine and the subspecialty of Emergency Medical Services. Dr. Kupas is also the Assistant Dean for Student Affairs at the Geisinger campus for Temple University School of Medicine. Dr. Kupas completed his Emergency Medicine Residency Program at Geisinger Medical Center, Danville, PA. His graduate degree was completed at Jefferson Medical College of Thomas Jefferson University and his undergraduate degree at Indiana University of Pennsylvania. He is a member of numerous local, state and national organizations. He has numerous honors, awards and publications to his credit. He remains active in his field of research. Doug is a paramedic and has been an active field EMS provider since 1980. Dr. Kupas also serves as the Commonwealth EMS Director for the Bureau of Emergency Medical Services for the Pennsylvania Department of Health. He is the former Chair of the Medical Directors Council of the National Association of EMS Officials, the Mobile Integrated Healthcare/ Community Paramedicine Committee of the National Association of EMS Physicians (NAEMSP), the Standards and Practices Committee of NAEMSP, and the Rural EMS Committee of NAEMSP. His clinical and research interests include EMS medical direction, EMS provider and patient safety, field trauma triage, emergency airway management, therapeutic hypothermia, wilderness EMS, and simulation in medical education. Dr. Kupas directs the ARCTIC (Advanced Resuscitation Cooling Therapies in Cardiac Arrest) program at Geisinger Health System, and he partnered with the HeartRescue project to advance statewide out-of-hospital cardiac arrest care in Pennsylvania. Additionally, Dr. Kupas was involved in writing a national position statement on patient restraint that guided the development of protocols for EMS operations across the country. He also participated in evidence-based reviews for the International Liaison Committee on Resuscitation that drafts the guidelines used by the American Heart Association and other resuscitation groups around the world and for the Centers for Disease Control/American College of Surgeons field trauma triage guidelines. He has served as the state EMS medical director for Pennsylvania since 2000, and during that time he led the process developing statewide EMS protocols. He participated in projects to develop implement national evidence-based guidelines for EMS.

Cato T. Laurencin

Member

Cato T. Laurencin, M.D., Ph.D., is the Albert and Wilda Van Dusen Distinguished Professor of Orthopaedic Surgery, Professor of Chemical and Biomolecular Engineering, Professor of Materials Science and Engineering, and Professor of Biomedical Engineering at the University of Connecticut. Dr. Laurencin is the founder and director of both the Institute for Regenerative Engineering and the Raymond and Beverly Sackler Center for Biomedical, Biological, Physical and Engineering Sciences at the University of Connecticut. He also serves as Chief Executive Officer of the Connecticut Institute for Clinical and Translational Science at UCONN. For his outstanding achievements in medicine, engineering and science, and for his distinguished service to the university, UCONN named him a University Professor. He is the 8th in UCONN's 130 year history. Dr. Laurencin earned his B.S.E. in chemical engineering from Princeton University and his M.D., Magna Cum Laude, from the Harvard Medical School. He simultaneously earned his Ph.D. in biochemical engineering/biotechnology from the Massachusetts Institute of Technology where he was a Hugh Hampton Young Fellow. Dr. Laurencin's work in science focuses on biomaterials, nanotechnology, drug delivery, stem cell science and a new field he has pioneered, Regenerative Engineering. In 2012, his work was highlighted by National Geographic Magazine in its edition, "100 Scientific Discoveries that Changed the World". Dr. Laurencin's work is funded by the National Science Foundation, the Department of Defense, and the National Institutes of Health, where he is a recipient of a 2014 NIH Pioneer Award for his work in Regenerative Engineering. A practicing shoulder and knee surgeon, Dr. Laurencin is a Fellow of the American College of Surgeons, a Fellow of the American Surgical Association, and a Fellow of the American Academy of Orthopaedic Surgeons. He won the Nicolas Andry Award from the Association of Bone and Joint Surgeons. He has been listed in America's Top Doctors™ continuously for the past decade. A Fellow of the American Chemical Society, the American Institute of Chemical Engineers, the Materials Research Society and the American Association for the Advancement of Science, Dr. Laurencin is a Fellow of the American Institute for Medical and Biological Engineering and served as the Chair of the College of Fellows. He is an International Fellow in Biomaterials Science and Engineering and served on the Council of the Society for Biomaterials. He is a Fellow of the Biomedical Engineering Society and has been a member of the Board of Directors. Dr. Laurencin received the Presidential Faculty Fellowship Award from Bill Clinton in recognition of his research work bridging medicine and engineering. In 2009, the American Institute of Chemical Engineers named him one of the 100 Engineers of the Modern Era at its centennial celebration. In 2014, he received the Percy Julian Medal from the National Organization of Black Chemists and Chemical Engineers at its annual meeting. Dr. Laurencin has been active in service to our nation. He has served on the National Science Advisory Board of the U.S. Food and Drug Administration (FDA), the National Science Foundation's Engineering Advisory Committee (ADCOM), the National Institutes of Health Advisory Council for Biomedical Imaging and Bioengineering and the National Institutes of Health Advisory Council for Arthritis, Musculoskeletal and Skin Diseases. At the National Academies he has served as Co-Chair of the Clinical Effectiveness Research Innovation Collaborative as a member of the Institute of Medicine Roundtable on Value and Science Driven Health Care. Dr. Laurencin is an outstanding mentor. He has received the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring from President Barack Obama in ceremonies at the White House, the Elizabeth Hurlock Beckman Award for Mentoring, the Alvin H. Crawford Mentoring Award from the J. Robert Gladden Orthopaedic Society, and the American Association for the Advancement of Science's Mentor Award. Dr. Laurencin is an elected member of the Institute of Medicine of the National Academy of Sciences, and an elected member of the National Academy of Engineering. Internationally, he is an elected Fellow of the African

Academy of Sciences and an elected Fellow of the World Academy of Sciences.

Ellen J. MacKenzie

Member

Ellen MacKenzie, Ph.D., is the Fred and Julie Soper Professor and Chair of the Department of Health Policy and Management at the Johns Hopkins Bloomberg School of Public Health and Director of the Major Extremity Trauma Research Consortium, dedicated to advancing limb trauma care and outcomes through research.

She is a graduate of the School of Public Health where she earned Master of Science and doctoral degrees in biostatistics. She joined the Hopkins faculty in 1980 and holds joint appointments in the School's Department of Biostatistics and with the departments of Emergency Medicine and Physical Medicine and Rehabilitation at the Johns Hopkins University School of Medicine. In addition to her faculty appointments, Dr. MacKenzie served as Senior Associate Dean at the School from 1996 to 2000 and Director of the Center for Injury Research and Policy from 1995-2005. Dr. MacKenzie completed a term as chair of the National Advisory Committee for Injury Prevention and Control and was past President of the American Trauma Society. Dr. MacKenzie's research focuses on the impact of health services and policies on the short- and long-term consequences of traumatic injury, with a special emphasis on orthopaedic trauma outcomes research. She has contributed to the development and evaluation of tools for measuring both the severity and outcome of injury and her research has advanced our understanding of both the clinical and non-clinical factors that influence recovery post-injury. Dr. MacKenzie was Co-PI on the LEAP study and the METALS study. She was also PI on the National Study on the Costs and Outcomes of Trauma Care (NSCOT). Some of her more recent efforts include the development and evaluation of self management programs for survivors of serious trauma. Her awards include the A.J. Mirkin Service Award from the Association for the Advancement of Automotive Medicine, the Kappa Delta Award from the American Academy of Orthopaedic Surgeons (for the LEAP Study), Distinguished Career Awards from the American Public Health Association and the American Trauma Society, and the Trauma Leadership Award from the Society of Trauma Nurses. She is also an honorary fellow of the American Association for the Surgery of Trauma and in 2012 was named by CDC as one of 20 leaders and visionaries who have had a transformative effect on the field of violence and injury prevention over the past 20 years.

David E. Marcozzi

Member

David Marcozzi, M.D., MHS-CL, FACEP, is Senior Advisor for Emergency Preparedness and Acute Care within the Centers for Medicare and Medicaid Services (CMS) at the Department of Health and Human Services (HHS). Before moving to CMS, he was the Director of the National Healthcare Preparedness Program (NHPP), within the Office of the Assistant Secretary of Preparedness and Response at the U.S. Department of Health and Human Services. In September 2011, Dr. Marcozzi returned to HHS after completing a 3-year detail at the White House National Security Council as Director of All-Hazards Medical Preparedness Policy. While there, he led multiple Sub-Interagency Policy Committees and assisted with responding to several events including the 2010 Haiti earthquake. Prior to his federal positions, Dr. Marcozzi was an Assistant Professor of Emergency Medicine at Duke University Medical Center and completed a congressional fellowship at the U.S. Senate. Serving on the Bioterrorism and Public Health Preparedness Subcommittee, he assisted in drafting the Pandemic and All-Hazards Preparedness Act that became law in 2006. Dr. Marcozzi continues to practice emergency medicine and is a Fellow of the American College of Emergency Physicians. Currently, he is an Associate Clinical Professor of Emergency Medicine at George Washington University. A Lieutenant Colonel in the U.S. Army Reserves, Dr. Marcozzi has been mobilized four times since 2001 and is now assigned to the U.S. Army Special Operations Command as a Deputy Surgeon. As a prior member of the National Disaster Medical System, Dr. Marcozzi responded to multiple disasters including the September 11, 2001 attack on the World Trade Center. The author of several articles and scientific manuscripts, he is also the recipient of numerous military and civilian awards including the National Security Council Outstanding Achievement Award, a Certificate of Appreciation from the Assistant to the President for Homeland Security and Counterterrorism, the Army Commendation Medal, the National Disaster Medical System Distinguished Member Award and the Duke Emergency Medicine Distinguished Faculty Award.

Joe McCannon

Member

Before co-founding the Billions Institute, Joe McCannon was an appointee in the Obama Administration, serving as Senior Advisor to the Administrator at the Centers for Medicare and Medicaid Services (CMS) in the U.S. Department of Health and Human Services (HHS). There he rolled out major pieces of the Affordable Care Act and was part of the founding leadership team at the Center for Medicare and Medicaid Innovation (CMMI), directing its Learning and Diffusion Group. Before this, he was Vice President and faculty on large-scale improvement at the Institute for Healthcare Improvement (IHI), leading the organization's major domestic initiative to improve patient safety, the 100,000 Lives Campaign, and starting its work in Africa. He has supported large-scale transformation in several nations, including Canada, Denmark, England, Japan and South Africa, and consulted on the topic for a number of organizations, including the Bill and Melinda Gates Foundation, the World Health Organization and Community Solutions (100,000 Homes Campaign). He started his career in the publishing industry with roles at Fast Company, The Atlantic Monthly, and Outside magazine. He is a graduate of Harvard University and was a Reuters Fellow at Stanford University.

John A. Parrish

Member

John A. Parrish, M.D., is the Chief Executive Officer and founder of the Consortia for Improving Medicine with Innovation and Technology (CIMIT), a consortium of academic and engineering research laboratories, universities and more than 40 private-sector companies. Through CIMIT, clinical investigators work to advance the standards of care for all patients through the development and the adoption of targeted medical devices and technologies. Trained in internal medicine, dermatology and clinical research, Dr. Parrish has been recognized as a visionary and innovator who lists among his accomplishments the development of therapies to treat skin disease, including the now-common use of ultraviolet light. For two decades, Dr. Parrish served as chief of the Department of Dermatology at Massachusetts General Hospital, founding the Wellman Center for Photomedicine, the first – and now the world’s largest – multidisciplinary research group to study the effects of lasers on tissue. A graduate of Duke University and Yale University School of Medicine, Dr. Parrish is the author or co-author of more than 300 publications, including six books. Dr. Parrish has earned the Discovery Award from the National Dermatology Foundation; the Bowditch Prize from Massachusetts General Hospital for enhancing the quality of patient care while reducing the cost of that care; the U.S. Army’s Thurman Award, honoring the late Gen. Maxwell Reid Thurman, who championed the advancement of lifesaving medical technologies within the U.S. Army; and the 2011 Humanitarian Award, for his wide-ranging lifetime professional contributions to the field of dermatology. Dr. Parrish proudly served in the United States Marine Corps and was a battlefield doctor in Vietnam. As a result, he is acutely aware of the needs of soldiers and their supportive medical units. He is the Founding Director of the Boston Red Sox Foundation-Massachusetts General Hospital Home Base Program, a novel public/private partnership aimed at helping veterans of the wars in Afghanistan and Iraq who are affected by post-traumatic stress disorder and traumatic brain injury.

Rita Redberg

Member

Rita Redberg, M.D., F.A.C.C., M.Sc.

Professor of Medicine

University of California, San Francisco

Rita F. Redberg has been a cardiologist and Professor of Medicine at the University of California, San Francisco since 1990. She is currently the Chief Editor of JAMA Internal Medicine (formerly Archives of Internal Medicine). Dr. Redberg's research interests are in the area of health policy and technology assessment; her work includes comparative effectiveness research and focuses on how evidence relates to FDA approval, insurance coverage and medical guidelines and practice. Dr. Redberg is a member of the Medicare Payment Advisory Commission that advises Congress on Medicare payment policy. She has chaired the Medicare Evidence, Development and Coverage Advisory Commission since 2012 and also served as a member from 2003 to 2006. Dr. Redberg was recently appointed to the Clinical Advisory Panel for the California CABG Outcomes Reporting Program where she joins several other IHPS faculty. She currently is a member of the California Technology Assessment Forum, the Medical Policy Technology and Advisory Committee, and the Food and Drug Administration Cardiovascular Devices Expert Panel and is a consultant to the Center for Medical Technology Policy. She and Sanket Dhruva recently completed an extensive review of the FDA Cardiovascular Device pre-market approval (PMA) process including issues related to gender bias and has ongoing work looking at post market surveillance of medical devices, including collaborations with the Pew Charitable Trusts and the FDA. In addition, Dr. Redberg is a member of the American College of Cardiology's (ACC) Clinical Quality Committee, serves on the ACC Quality in Technology Work Group, is a member of the ACC Comparative Effectiveness Work Group, represents the ACC on the Institute of Clinical and Economic Review Advisory Board, and serves on other ACC Committees, including several on appropriate use of cardiac imaging and radiation safety. She was a member of the Institute of Medicine's Learning Health Care Committee, and she has chaired the AHA/ACC Writing Group on Primary Prevention Performance Measures. Dr. Redberg graduated from Cornell University and the University of Pennsylvania Medical School and has a Masters of Science in Health Policy and Administration from the London School of Economics. She earned her medical degree from the University of Pennsylvania School of Medicine, in Philadelphia. In addition, Dr. Redberg has a masters of science in health policy and administration from the London School of Economics in England.

James Robinson

Member

James Robinson currently serves as the Chief of Special Operations for Denver Health EMS. He is the current President and a founding member of the International Association of EMS Chiefs. Chief Robinson began his EMS career as a volunteer EMT in 1989, and went on to a professional career with the City and County of Denver in 1993 as a field paramedic. Since then, he has been involved in every facet of the Denver Health Paramedic Division's operations, and has been an Assistant Chief since 2005. In addition to his Denver Health role, Chief Robinson serves as the chairman of the Denver UASI/Colorado North Central All-Hazards Region's EMS subcommittee, as an EMS representative to the State of Colorado All-Hazards Advisory Committee, as a member of the State of Colorado's ESF-8 Steering Committee and as the past Denver Metro Region 3 Board of Directors' representative to the Emergency Medical Services Association of Colorado. He has been involved in numerous local and State of Colorado committees and boards on EMS, public health and emergency management. Chief Robinson has been involved in numerous national-level EMS initiatives as well, including the National EMS Preparedness Initiative summits through George Washington University, the Systems Subcommittee of the National EMS Advisory Council, the Department of Homeland Security Interagency Board Active Shooter Working Group and others. Chief Robinson holds a BS, Magna Cum Laude, in Human Services from Metropolitan State University of Denver and is a graduate of Cohort 6 of the Harvard Kennedy School of Government and the Harvard School of Public Health's National Preparedness Leadership Initiative (NPLI). He is currently a master's degree candidate in the Naval Postgraduate School's Center for Homeland Defense and Security Master's Degree Program.

Thomas M. Scalea

Member

Thomas M. Scalea, M.D. was born in Rochester, New York. He attended the University of Virginia and then the Medical College of Virginia. Dr. Scalea did his residency at the Upstate Medical Center in Syracuse, New York, and his Trauma Critical Care Fellowship at New York Medical College. Following his fellowship, Dr. Scalea began his career at the Kings County Hospital/Downstate Medical Center. He became Chief of Trauma and Critical Care and rose to the rank of Professor. He also founded the Department of Emergency Medicine at Downstate. In 1997, Dr. Scalea became the Physician-in-Chief at the R Adams Cowley Shock Trauma Center at the University of Maryland, the nation's only freestanding trauma hospital. Several years later, he became the first medical school endowed Professor of Trauma, when he was appointed the Honorable Senator Francis X. Kelly Distinguished Professor in Trauma Surgery. Dr. Scalea is also the System Chief for Critical Care Services at the University of Maryland Medical System. Under Dr. Scalea's leadership, his program has expanded clinical services remarkably. His faculty is now responsible for all of the acute care and emergency general surgery patients at the University of Maryland Medical Center. The group has built a region wide critical care program and is now responsible for 9 Intensive Care Units and approximately 140 beds. Under his leadership, the trauma volumes have grown 40% over the last 15 years.

Dr. Scalea has greatly expanded the research portfolio; joining with the Department of Anesthesiology he created the Shock Trauma and Anesthesiology Research Center. This is one of a very few organized research centers at the University of Maryland School of Medicine. Recruiting a new Director, DOD and NIH funded research has increased from approximately \$3 million to over \$13 million over the past few years. The Shock Trauma group routinely participates in all of the major multi-institutional trials done in trauma in the United States. The educational program has also expanded considerably. Shock Trauma houses the largest ACGME Surgical Critical Care training program in the country, as well as the largest AAST approved Acute Care Surgery Fellowships. Shock Trauma is one of the few places to have an ACGME approved Surgical Critical Care Fellowship for emergency physicians, allowing them to take the Surgical Critical Care Board Exam. In 2001, Dr. Scalea established the US Air Force C-STARS Program (Center for Sustainment of Trauma and Readiness Skills). This program trains Air Force men and women of all disciplines, refining trauma skills before deployment. For the last 14 years, C-STARS has trained approximately 4,000 people before deployment in either Iraq or Afghanistan. In 2008 and 2011, Dr. Scalea traveled to Iraq and Afghanistan respectively to observe the Wounded Warrior Care System in the field, during the critical care air transport and in military hospitals to provide unbiased 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.

C. W. Schwab

Member

C. William Schwab, M.D., F.A.C.S., F.R.C.S., is currently Professor of Surgery at the University of Pennsylvania. In 1987, Dr. Schwab established a Level I Regional Resource Trauma Center, Surgical Critical Care Service, the PennSTAR Flight Program and the Communications Center at the University of Pennsylvania Medical Center. Today, Dr. Schwab's surgical practice focuses on caring for the severely injured patient and developing regional trauma and emergency care systems. He is one of the first traumatologists to study the effects of trauma in the elderly patient. In addition, Dr. Schwab is active in the field of violence prevention and continues to teach trauma surgeons how to become leaders in the public health effort to reduce firearm-related injuries. He directs the University of Pennsylvania Trauma Network. This involves administrating and coordinating several centers throughout Eastern Pennsylvania with Penn's Level I trauma center to enhance the quality of trauma and emergency care. Lastly, he directs the fellowship program in trauma surgery and critical care at the Hospital of the University of Pennsylvania, a program with ten trainees annually and over 70 graduates located throughout the world. Dr. Schwab received his medical degree from the State University of New York. During medical school he joined the U.S. Navy and did his residency during the Vietnam war at the Naval Regional Medical Center in Portsmouth, VA.

Phillip Spinella

Member

Philip C. Spinella, M.D., FCCM is an Associate Professor, and the Director of the Critical Care Translational Research, at Washington University School of Medicine. He has published approximately 100 manuscripts/chapters, and has been an invited speaker at over 100 institutions globally on the topic of traumatic hemorrhagic shock. As a well-established investigator, having been awarded ~\$20 million from the DoD and NIH, he is primary investigator of two randomized controlled trials: ABC-PICU, examining effects of red blood cell storage age on outcomes in critically ill children; and TAMPITI, examining immunologic effects of TXA in adults with severe traumatic injuries. He served 15 years in the US Army, separating as LTC. As a veteran of the Iraq War, he received a Bronze Star, Combat Medic Badge and the US Army's Best Invention Award for the concept of "Damage Control Resuscitation". Dr. Spinella has previously served as consultant to the US Army Blood Research Program at the US Army Institute of Surgical Research, Homeland Security, the Public Health Service - Northeast Region, and the Norwegian Navy Blood Research Program. He is co-founder and Chair of the Pediatric Critical Care Blood Research Network, and the Trauma Hemostasis and Oxygenation Research Network. Both are international multidisciplinary networks that aim to improve outcomes for patients with shock or coagulopathy.