

"... saving hearts and brains too good to die"

Peter Safar, M.D.

11th Annual Safar Symposium

Acknowledgements

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11th Annual Safar Symposium

MAY 16-17, 2013
Pittsburgh, PA

**May 16: Traumatic Brain Injury: Making a Difference
in Military and Civilian Outcomes**



May 17: Military Medicine and Trauma Simulation

11th Annual Safar Symposium

Multidepartmental Trainees' Research Day

May 16, 2013

Location: University Club, Ballroom A – 123 University Place

7:45 a.m.	Registration and Poster Setup
8:00 – 8:10	Welcome – Patrick M. Kochanek, MD, MCCM Professor and Vice Chair, Department of Critical Care Medicine; Director, Safar Center for Resuscitation Research, University of Pittsburgh School of Medicine
8:10 – 9:40	Poster Presentations
9:40 – 9:50	Break
9:50 – 10:50	Trainees' Oral Presentations
10:50 – 11:20	Judges Meeting – Conference Room A–3rd floor
11:20 – 11:40	Awards Presentation
11:40 – 12:00	Break
12:00 – 12:05	Introduction of the <i>Safar Lecture</i> – John P. Williams, MD
12:05 – 12:10	Introduction of the <i>Safar Lecturer</i> – Patrick Kochanek, MD
12:10 – 12:50	33rd Annual Safar Lecture – John T. Povlishock, PhD
12:50 – 1:00	Questions and Discussion
1:00 – 1:45	Reception

The 33rd Peter and Eva Safar Annual Lectureship in Medical Sciences and Humanities

Guest Speaker: John T. Povlishock, PhD
Professor and Chair, Department of Anatomy and Neurobiology;
Director, Commonwealth Center for the Study of Traumatic Brain
Injury, Department of Anatomy and Neurobiology, Medical College
of Virginia Campus of Virginia Commonwealth University;
Editor-in-Chief, *Journal of Neurotrauma*

Topic: Diffuse Axonal Injury: A Simple Clinical Concept with Unexpectedly
Complex Implications for the Injured Brain and Its Circuitry

11th Annual Safar Symposium

May 16, 2013

Location: University Club, Ballroom A – 123 University Place

2:00 – 5:30 p.m.	<i>“Breakthroughs in Resuscitation Medicine: TBI: Making a Difference in Military and Civilian Outcomes”</i>	3:35 – 3:50	Break
Moderators:	Donald Marion, MD, MSc , The Defense and Veterans Brain Injury Center	3:50 – 4:15	Denes V. Agoston, MD, PhD Professor, Department of Anatomy, Physiology and Genetics, Program in Neuroscience, School of Medicine, Uniformed Services University of the Health Sciences Topic: “Adding Insult(s) to Injury: The Biology of Multiple Mild TBI”
	Lori Shutter, MD , Department of Critical Care Medicine, University of Pittsburgh	4:15 – 4:20	Discussion
	Amy K. Wagner, MD , Department of Physical Medicine and Rehabilitation, University of Pittsburgh	4:20 – 4:45	Ramon Diaz-Arrastia, MD, PhD Director of Clinical Research, Center for Neuroscience and Regenerative Medicine; Professor of Neurology, Uniformed Services University of the Health Sciences Topic: “What We Need to Know for the Next Generation of Clinical Trials in Traumatic Brain Injury”
2:00 – 2:05	Opening Comments Patrick M. Kochanek, MD, MCCM Professor and Vice Chair, Department of Critical Care Medicine; Director, Safar Center for Resuscitation Research, University of Pittsburgh School of Medicine	4:45 – 4:50	Discussion
2:05 – 2:30	Brian Suffoletto, MD, MS Assistant Professor, Department of Emergency Medicine, University of Pittsburgh; Research Director, UPMC Mercy Emergency Department Topic: “Symptom Trajectories after Mild TBI and Computer-Delivered Telehealth Approaches to Improve Self Management and Recovery”	4:50 – 5:15	Amy K. Wagner, MD Associate Professor and Vice Chair for Research, Department of Physical Medicine and Rehabilitation; Associate Director, Rehabilitation Research, Safar Center for Resuscitation Research; Training Faculty, Center for Neuroscience at the University of Pittsburgh Topic: “Personalized Medicine Approaches for TBI: A Rehabilomics Perspective”
2:30 – 2:35	Discussion	5:15 – 5:20	Discussion
2:35 – 3:00	Hoby P. Hetherington, PhD, MSc Director, Magnetic Resonance Research Center Professor, Department of Radiology, University of Pittsburgh Topic: “MRS in Blast TBI”	5:20 – 5:30	Closing Remarks – Patrick M. Kochanek, MD, MCCM
3:00 – 3:05	Discussion		
3:05 – 3:30	Milos Ikonovic, MD Associate Professor of Neurology and Psychiatry, University of Pittsburgh School of Medicine Topic: “The Link Between TBI and Neurodegenerative Disease”		
3:30 – 3:35	Discussion		

May 17, 2013

Location: WISER, 230 McKee Place, Suite 300

8:00 – 12:05 p.m. *Military Medicine and Trauma Simulation*

Moderator: **Paul E. Phrampus, MD**
Director, Winter Institute for Simulation, Education and Research
(WISER), University of Pittsburgh, Associate Professor of
Emergency Medicine and Anesthesiology, University of Pittsburgh
School of Medicine

8:00 a.m. Registration and Continental Breakfast

8:30 – 8:45 Opening Comments
Paul E. Phrampus, MD
Director, WISER, University of Pittsburgh, Associate Professor of
Emergency Medicine and Anesthesiology, University of Pittsburgh
School of Medicine

8:45 – 9:10 **Rebecca C. Britt, MD, FACS**
Associate Professor of Surgery,
Surgical Director, EVMS/Sentara Center for Surgical Education.
Eastern Virginia Medical School
Topic: “Trauma Training 2013 – The Role of Simulation”

9:10 – 9:15 Discussion

9:15 – 9:40 **Carl Schulman, MD, PhD, MSPH, FACS**
Associate Professor of Surgery, Director, William Lehman Injury
Research Center; Associate Director, Surgical Residency Program
DeWitt Daughtry Family Department of Surgery
**Topic: “MobileCARE and Trauma Education: A New Era in
Mobile Learning”**

9:40 – 9:45 Discussion

9:45 – 10:10 **John L. Falcone, MD, MS**
Chief Resident, Department of Surgery, University of Pittsburgh
Medical Center
**Topic: “Trauma Resuscitation Team Leaders: Institutional
Experience of Simulation Based Team Leadership Training”**

10:10 – 10:15 Discussion

10:15 – 10:30 Coffee break

10:30 – 10:55

J. Harvey Magee
Technical Director, Simulation and Training Technology
Telemedicine and Advanced Technology Research Center (TATRC)
US Army Medical Research and Materiel Command
**Topic: “Medical Simulation Research and its Potential to
Improve Trauma Training”**

10:55 – 11:00 Discussion

11:00 – 11:45 **Robert F. Buckman Jr., MD, FACS**
President, Operative Experience, Inc. (OEI); Retired Surgeon,
Formerly Professor of Surgery and Chief of Trauma Services,
Temple University Hospital
Topic: “The Real Cutting Edge”

11:45 – 11:55 Discussion

11:55 – 12:05 Concluding Comments –
Paul E. Phrampus, MD
Patrick M. Kochanek, MD, MCCM

11th Annual Safar Symposium

May 16, 2013

“TBI: MAKING A DIFFERENCE IN MILITARY AND CIVILIAN OUTCOMES”

Location: University Club, Ballroom A – 123 University Place



Dr. Brian Suffoletto, after graduating from the Affiliated Residency of emergency medicine at the University of Pittsburgh, he completed a Master's of Science in clinical research through the Institute for Clinical Research Education. He has been a staff physician at UPMC Mercy for the past six years and the director of research. Over the last four years, he has developed an expertise in designing and evaluating computerized systems that use communication

technology to collect longitudinal data from participants and delivers behavioral support. Specifically, he has studied the symptom trajectories that patients experience after acute mild traumatic brain injury (mTBI) and has studied the effect of supportive text messages on recovery. He continues to work with a multidisciplinary team of investigators in emergency medicine, physical medicine and rehabilitation, information technology and psychiatry/psychology to develop more advanced telehealth platforms to improve detailed ecological data collection and deliver evidence-based treatments to improve outcomes after mTBI.



Dr. Hoby Hetherington received bachelor degrees in biochemistry and biophysics at the University of California at Berkeley in 1982. In 1987, he received his PhD in molecular biochemistry and biophysics at Yale University under the mentorship of RG Shulman. After a postdoctoral fellowship at the University of California at San Francisco and San Francisco Veterans Administration Medical Center, Dr. Hetherington joined the faculty at the University of Alabama at Birmingham

as an assistant professor (1989) and was promoted to associate professor in 1995. In 1997, Dr. Hetherington joined Brookhaven National Laboratory as an associate scientist, and was promoted to Scientist in 1999. In 2000, Dr. Hetherington joined the Albert Einstein College of Medicine as a professor in radiology and director of the Magnetic Resonance Research Center. In 2007 Dr. Hetherington was awarded tenure as a full professor in the Department of Neurosurgery at Yale University. In 2013, Dr. Hetherington joined the University of Pittsburgh as a professor in the Department of Radiology and director of the Magnetic Resonance Research Center.

Dr. Hetherington's work focuses on the development and application of novel high field MR methods and hardware to evaluate the biochemical pathophysiology associated with a variety of neurological and psychiatric disorders. Over the past 15 years, much of Dr. Hetherington's clinical research work has focused on the use of MRSI to identify neuronal injury in patients with epilepsy and to correlate these metabolic changes with histologic, physiologic, and functional changes at the cellular level and cognitive performance on a clinical level. Dr. Hetherington's group has focused on overcoming the technological hurdles of performing MRSI studies in patients at 7T. This work has brought about the development of new high performance transceiver arrays and methods for RF shimming; novel and highly efficient RF based localization methods at 7T; advanced methods for measuring glutamate and GABA; and a high order/degree shim insert, which reduces the residual inhomogeneity in the brain by a factor of 2. These advances are currently being applied to evaluate patients with epilepsy and brain tumors as part of their pre-surgical evaluation for surgery. Dr. Hetherington's group will be responsible for expanding this work to other patient groups (including TBI and PTSD) at 7T and translating the methods to conventional 3T clinical systems to maximize the impact of this work clinically. Previous work identified significant alterations consistent with neuronal loss and impairment in both the TBI and PTSD groups.



Dr. Milos Ikonomovic received his MD from the University of Nis Medical School in Yugoslavia in 1988 and completed clinical internship at the Nis Clinical Center. From 1991 to 1994 he was a postdoctoral fellow at the Fidia Georgetown Institute for Neurosciences, at Georgetown University School of Medicine studying glutamate and GABA receptors changes in aging and Alzheimer's disease (AD). In 1994 he joined the Neuroscience Research Center of the Allegheny

Singer Research Institute and Allegheny General Hospital in Pittsburgh, and in 1996 he was appointed a research assistant professor in the Department of Psychiatry at the Allegheny Campus of the Medical College of Pennsylvania and Hahnemann University. In 1999 he joined the faculty of the University of Pittsburgh School of Medicine conducting studies of the cholinergic system changes in aging, mild cognitive impairment, and AD. Since 2008 he has been an associate professor of neurology, with his secondary appointment in the Department of Psychiatry, and since 2010 he also has a part-time appointment in the Geriatric Research Education and Clinical Center, VA Pittsburgh Healthcare System.

Dr. Ikonomovic has authored over 75 peer reviewed publications in leading scientific journals, and presented his work at many national and international symposia. His research has been supported by the NIH, industry, and private foundations which focuses on altered amyloid-beta metabolism as a potential

link between traumatic brain injury and AD, neuropathological correlates of in vivo amyloid imaging, and cholinergic and synaptic changes in mild cognitive impairment and early AD.



Dr. Denes V. Agoston is a tenured professor at the Department of Anatomy, Physiology and Genetics, Uniformed Services University (USU) with secondary appointment in Neuroscience in Bethesda, MD. He is also a guest scientist at the Department of Neuroscience of the Karolinska Institutet and at the Department of Clinical Neuroscience at the Karolinska Hospital, Stockholm, Sweden. Dr. Agoston obtained his MD degree (1976) in Hungary. Between 1976 and 1980 he won two consecutive UNDP/UNESCO

fellowships and completed postgraduate training programs in neurochemistry and in neuroimmunology at the Biological Research Center, Szeged Hungary. In 1980, he won an Alexander von Humboldt Fellowship to the Max-Planck-Institute, Göttingen, (West) Germany but was not allowed to leave Hungary. In 1981, he won a Max-Planck Fellowship and finally in 1982 he left for Göttingen. While at the Max-Planck-Institute for Biophysical Chemistry he worked with Dr. Victor Whittaker, one of the founders of neurochemistry on the cell biology of cholinergic and peptidergic synaptic transmission. His work earned him his PhD degree (1992). In 1998 he won a postgraduate award of the German Scientific Council (DFG) to the NIH. At the NIH, he worked in Dr. Michael Brownstein's Laboratory on the transcriptional regulation of neuropeptide genes. In 1994 he became the head of the unit on neurodifferentiation at the NICHD, NIH. He worked there on the developmental regulation of neuron-specific gene expression till 1998 when he took a faculty position at USU.

After his move to USU, Dr. Agoston started to work on various aspects of traumatic brain injury including the regulation of aquaporin-4 expression after penetrating brain injury and on the role of VEGF signaling in adult de novo neurogenesis after closed head injury. He and his laboratory have been using a combination of functional, behavioral, cellular, and proteomics techniques for the identification of the pathobiology of blast TBI as well as studying the endogenous capacity of the brain for regeneration and functional recovery through environmental stimulation and pharmacological interventions. He is the site PI for the DARPA PREVENT project leading the protein biomarker discovery team. Dr. Agoston has multiple national and international collaborations on various aspects of preclinical and clinical TBI. Dr. Agoston has been teaching in the integrated medical curriculum and in the neuroscience program at USU and is mentoring students both at USU and at the Karolinska Institutet. He is an associate editor of *Frontiers in Neurotrauma*.



Dr. Ramon Diaz-Arrastia is professor of neurology, Uniformed Services University of the Health Sciences, and director of clinical research at the Center for Neuroscience and Regenerative Medicine (CNRM). Dr. Diaz-Arrastia's research interests are focused in the area of understanding the molecular, cellular, and tissue level mechanisms of secondary neuronal injury and neuroregeneration.

Dr. Diaz-Arrastia received his MD and PhD degrees at Baylor College of Medicine in 1988, where he was elected to Alpha Omega Alpha. After a one year medicine internship at Beth Israel Hospital and the Harvard Medical School, he completed his neurology residency at Columbia-Presbyterian Medical Center. From 1993 to 2011, Dr. Diaz-Arrastia was on the faculty of the Department of Neurology at the University of Texas Southwestern, where he was promoted to professor in 2006. In 2011, Dr. Diaz-Arrastia was recruited to the position of professor of neurology at the Uniformed Services University of the Health Sciences (USUHS), as well as director of clinical research at the Center for Neuroscience and Regenerative Medicine (CNRM), a novel collaboration between USUHS and the National Institutes of Health designed to promote research in TBI.

Dr. Diaz-Arrastia has published over 120 peer-reviewed primary research papers, as well as over 20 invited reviews and book chapters. He has also served on several national committees related to TBI research and practice. He has served on expert panels convened by the Institute of Medicine, the National Institute of Neurological Disorders and Stroke, and the National Institute of Aging. He has also served on Scientific Review Committees for the National Institutes of Health, the Department of Defense, the Veterans Administration, Alzheimer's Association, and the Victoria (Australia) Neurotrauma Fund, among others. He is also a peer reviewer for the leading journals in neurology, neuroscience, neurotrauma, and neurorehabilitation. In 2008 he received a Distinguished Alumnus Award from Baylor College of Medicine.



Dr. Amy K. Wagner is a tenured associate professor and endowed research chair in the Department of Physical Medicine and Rehabilitation at the University of Pittsburgh. She is also an associate director for rehabilitation research at the Safar Center for Resuscitation Research. Dr. Wagner is a leading investigator in the use of biomarkers in developing and optimizing individualized treatment outcomes, also known as “theranostics” or “personalized medicine.”

She has defined this field of translational, rehabilitation centered biomarkers research as Rehabilomics Research (see www.rehabilomics.pitt.edu for more information). Dr. Wagner currently holds a NIDRR funded TBI Model System of Research and Care Excellence to further develop the TBI Rehabilomics Research Model. Her research has also been funded by the Department of Defense, National Institutes of Health, and Centers for Disease Control and Prevention. Her research also focuses on the neurobiology of neuroplasticity and recovery after TBI and how commonly used therapeutic agents impact neurobiological and neurobehavioral processes associated with neuroplasticity and recovery. Dr. Wagner has published more than 50 original research manuscripts and has over a dozen review articles on her work. She has served as research mentor to dozens of undergraduates, medical students, graduate students, postdoctoral fellows, and resident physicians, and to date, they have received over 40 awards and scholarships for their research. She is a member of the University School of Medicine Graduate Faculty and Training Faculty for the Center for Neuroscience at the University of Pittsburgh. Clinically, Dr. Wagner treats patients with neurological conditions and injuries in inpatient rehabilitation and as a physiatrist consultant during their acute hospitalization at the University of Pittsburgh Medical Center.

The 33rd Peter and Eva Safar Annual Lectureship in Medical Sciences and Humanities

Guest Speaker: **John T. Povlishock, PhD**

Professor and Chair, Department of Anatomy and Neurobiology; Director, Commonwealth Center for the Study of Traumatic Brain Injury, Department of Anatomy and Neurobiology, Medical College of Virginia Campus of Virginia Commonwealth University
Editor-in-Chief, *Journal of Neurotrauma*

Topic:

Diffuse Axonal Injury: A Simple Clinical Concept with Unexpectedly Complex Implications for the Injured Brain and Its Circuitry



John T. Povlishock, PhD, is Professor and Chair of the Department of Anatomy and Neurobiology as well as director of the Commonwealth Center for the Study of Traumatic Brain Injury on the Medical College of Virginia Campus of Virginia Commonwealth University. He has established a national and international reputation for his work in unmasking the complex pathobiology of diffuse traumatic brain injury, with major emphasis on mild and moderate traumatic injury. His research focuses upon traumatically-

induced axonal damage and its implications for downstream neuronal circuit disruption and reorganization. Over the last decade he has used the tools of advanced bioimaging, coupled with targeted electrophysiology, to better understand the subcellular and molecular changes associated with diffuse axonal injury and its implications for neuroplastic change.

Dr. Povlishock joined the faculty of VCU in 1973, rising to the rank of full professor in 1982. He has published over 200 manuscripts and reviews and his work has been acknowledged via his receipt of two Senator Jacob Javits Neuroscience Investigator Awards from the National Institute of Neurological Disorders and Stroke, in addition to his receipt of the Commonwealth of Virginia's Outstanding Scientist Award in 2006. Since 1982 he has participated on or chaired multiple NIH, VA, and foundation review panels, serving as a member of the National Advisory Neurological Disorders and Stroke Council of the National Institutes of Health from 2007-2011. He serves on multiple editorial boards and is a founding editorial board member and current editor-in-chief of the *Journal of Neurotrauma*, which

recently celebrated its 30th anniversary. For his scientific work, he has been invited to speak at over 250 national and international meetings. In addition to his commitment to the profession, Dr. Povlishock continues to participate in the educational mission of his institution, routinely teaching in medical, dental, and graduate courses. For these efforts he has received over 35 teaching awards from the dental and medical classes, while also receiving his university's Award of Excellence in Teaching, as well as his university's highest honor, the Award of Excellence.

Dr. Povlishock received his graduate education at St. Louis University, culminating his undergraduate and collegiate training in all Jesuit institutions. At Virginia Commonwealth University, Dr. Povlishock was appointed professor and chair of anatomy and neurobiology in 1995.

Dr. Povlishock is married and the father of two adult children.

“Military Medicine and Trauma Simulation”

Location: WISER, 230 McKee Place, Suite 300



Dr. Rebecca C. Britt obtained her MD degree from Eastern Virginia Medical School in 1998. She completed her General surgical residency at Boston Medical Center in 2003 and her surgical critical care fellowship at Eastern Virginia Medical School in 2004. She is board certified in both general surgery and surgical critical care. She joined the faculty of Eastern Virginia Medical School Department of Surgery in 2004, and was promoted to associate professor in 2011.

In addition to her clinical duties, Dr. Britt has been the program director for the critical care fellowship since 2006. She is also the director of the EVMS/Sentara Center for Surgical Education, which is an American College of Surgeons Accredited Education Institute. The EVMS/Sentara Center for Surgical Education focuses on providing simulation for team training in knowledge and skills necessary to provide optimal patient care. The curriculum incorporates all aspects of simulation, including device-based programs, standardized patients, and immersive learning environments. Active research and development within the center is ongoing in the areas of patient safety and laparoscopic skills.

Dr. Britt is an active member of the Virginia Chapter of the American College of Surgeons Council, and was recently elected Secretary/Treasurer for the Chapter. She is also involved nationally with the American College of Surgeons as a member of the Young Fellows Council and a member of the Women in Surgery and Education Institute Accreditation Committees. Dr. Britt is the past president of the Virginia Chapter of the Association of Women Surgeons and serves on the Association of Women Surgeons Clinical Practice and Membership Committees. She served on the CME Committee for the Southeastern Surgical Congress and served as the Chairman in 2012. Dr. Britt is involved with the medical school on the Student Progress Committee, the Medical Education Committee, and the EVMS 2.0 Implementation Committee.



Dr. Carl Schulman earned his medical degree from the University of South Florida College of Medicine in 1995. He completed his training in general surgery and received additional training in trauma and surgical critical care at the University of Miami/Jackson Memorial Medical Center. Certified by the American Board of Surgery in general surgery and surgical critical care, his prior experience includes a two-year NIH Research Training Fellowship. He also completed his Master's of Science in public health and PhD in epidemiology to enhance his current research interests focusing on the epidemiology of burns and trauma. He is the director of the William Lehman Injury Research Center at the Ryder Trauma Center. He has been awarded grants from The Robert Wood Johnson Foundation, the Department of Defense, and the Centers for Disease Control and Prevention, among others. Dr. Schulman is also the principal investigator on numerous other epidemiological studies and clinical trials. His clinical practice includes trauma, burns, and surgical critical care at the Ryder Trauma Center where he is also associate program director of the General Surgery Residency Program.

As part of a large Department of Defense grant project, he has been developing and testing a new mobile clinical system that integrates documentation, education, and telemedicine. Most recently, the Trauma and Critical Care Curriculum he designed was accepted for inclusion into the American College of Surgeons Advanced Trauma Life Support Course and the Surgical Council on Resident Education web portal. He has authored over 50 publications and is a reviewer for numerous journals.



Dr. John Falcone is a Western New York native, graduating *summa cum laude* from Cornell University in 2002 with a degree in biology and a concentration in biochemistry with research honors. He graduated from the University of Pittsburgh School of Medicine in 2006. He is currently an administrative chief resident in the Department of Surgery at the University of Pittsburgh Medical Center. During his training, he completed a Master of Science in medical education through the University of Pittsburgh and a surgical education research fellowship through the Association for Surgical Education. He has been the recipient of numerous local teaching awards, and has recently received the American College of Surgeons Resident Award for Exemplary Teaching. Upon graduation, he will be moving with his wife, Trasey, and his two children, Gianna and Joseph, to Kentucky to start a career as a general surgeon.



Mr. J. Harvey Magee's professional experience spans 42 years in the United States Air Force (USAF), the private sector, and the United States Army Medical Research and Materiel Command's (USAMRMC) Telemedicine and Advanced Technology Research Center (TATRC), Ft. Detrick, Maryland, where he served as the Technical Director, Medical Simulation and Training Technologies. From October 1, 2011, from September 30, 2012, Mr. Magee was assigned as the Portfolio Manager, Joint Program Committee-1 (Medical Training and Health Information Systems), HQ USARMC. He returned to TATRC October 1, 2012 to resume his duties as the Technical Director for "MedSim." Mr. Magee is a hospital administrator by profession.

Mr. Magee came to TATRC in 1999 as a contract project officer. In 2002, he became an employee of the University of Maryland Medical Center (UMMC) and later became an Intergovernmental Personnel Act (IPA) employee, on loan to the federal government. From 1999 until 2002, Mr. Magee was employed by Sherikon (purchased by Anteon Corporation) under contract to TATRC.

Mr. Magee retired from the USAF, Medical Service Corps, in 1996. From 1996 until 1999, he was the Mid Atlantic Regional Manager for PROMODEL, Healthcare Services Division, representing MedModel, a healthcare delivery process simulation program.

From 1993–1996, Major Magee managed the Wartime Medical Planning System (WAR-MED) for the USAF Office of the Surgeon General, Washington, DC. WAR-MED is an Advanced Research and Development program simulating casualty treatment and evacuation worldwide. He spearheaded development efforts of the acquisition community, identified resources necessary to operate and sustain WAR-MED, and prepared the medical community to deploy and implement this simulation technology.

Mr. Magee was certified by the Federal Aviation Administration 1992 as a total quality management facilitator. Mr. Magee graduated from the University of Mississippi in 1970, with a BBA in General Business. Mr. Magee is an Eagle Scout, Order of the Arrow, a private pilot, an avid racquetball player, and has a passion for photography. Mr. Magee is married to the former Linda Barnes. The Magees have four children, 10 grandchildren, a cavichon puppy named Snickers, and a golden retriever puppy named Sasha.



Dr. Robert Buckman is a retired surgeon, formerly professor of surgery and chief of the trauma service at Temple University Hospital. He is currently the president of Operative Experience, Inc. (OEI), a pioneering company in surgical simulation. Under continuous Department of Defense funding since 2009, the company has developed simulation-based, rapid trauma skills training systems for deploying U.S. military surgeons and combat medics.

Dr. Buckman received his MD from Duke and completed his surgical training at Johns Hopkins, UMDNJ-Rutgers, and the Maryland Shock/Trauma Unit. He served for three years at the Walter Reed Army Institute of Research and, as an activated U.S. Army reservist, deployed as a trauma surgeon in the first Gulf War. Dr. Buckman is the author of approximately 100 publications and holds 15 U.S. patents.

Notes