Bruce Tromberg, PhD

Director, National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health

Bruce J. Tromberg, Ph.D., is Director of the National Institute of Biomedical Imaging and Bioengineering (NIBIB) at NIH, a post he assumed in January 2019. He is a pioneering leader in the field of biophotonics. Prior to his appointment at NIBIB, Dr. Tromberg held dual appointments as professor in the Departments of Biomedical Engineering and Surgery at the University of California at Irvine (UCI). He also directed UCI's Beckman Laser Institute and Medical Clinic, an interdisciplinary research, teaching and clinical center for optics and photonics in biology and medicine.

In his 30-plus-year academic and scientific career, Dr. Tromberg conducted extensive NIH-supported research, and was the principal investigator for multiple NIH grants going back as far as 1994. This includes 20 years as PI for the Laser Microbeam and Medical Program (LAMMP), an NIH National Biomedical Technology Resource Center where several cutting-edge technologies have been developed and disseminated to laboratories and clinics around the world. In addition to advisory committee appointments with numerous national and international entities, Dr. Tromberg provided expertise on NIH working groups, review committees, and boards, including the NIBIB National Advisory Council from 2012-2016. Dr. Tromberg's research spans biophotonics and biomedical optics, two rapidly growing fields that use light to image and conduct therapy at the molecular, cellular and tissue levels. He has co-authored more than 450 publications and holds 18 patents for biophotonics technologies and their applications in areas such as cancer, neuroscience and vascular disease. He specializes in new technology development as well as the "bench to bedside" clinical translation, validation and commercialization of promising methods designed to improve human health.

Dr. Tromberg earned a B.A. in chemistry and psychology in 1979 from Vanderbilt University, Nashville, Tennessee, and a Ph.D. in chemistry in 1988 from the University of Tennessee in Knoxville. While completing his Ph.D., he conducted research as a Department of Energy predoctoral fellow at the Oak Ridge National Laboratory, Oak Ridge, Tennessee.

Arthur Kellermann, MD, MPH

Dean, School of Medicine, Uniformed Services University of the Health Sciences

Arthur L. Kellermann, MD, MPH, became Dean of the F. Edward Hébert School of Medicine at the Uniformed Services University of the Health Sciences, on September 7, 2013. The unique program has ranked among the top in the nation and is the country's only federal medical school.

Dr. Kellermann's distinguished career is anchored in academic medicine and public health. Prior to joining USU, he held the Paul O'Neill-Alcoa Chair in Policy Analysis at RAND, a non-profit research organization. He was a professor of emergency medicine and public health and associate dean for health policy at the Emory School of Medicine in Atlanta. He founded Emory's Department of Emergency Medicine and served as its first chair from 1999 to 2007. He also founded the Emory Center for Injury Control, a World Health Organization Collaborating Center.

A two-term member of the board of directors of the American College of Emergency Physicians, Dr. Kellermann was subsequently given the College's highest award for leadership. He also holds "excellence in science" awards from the Society for Academic Emergency Medicine and the Injury Control and Emergency Health Services Section of the American Public Health Association. Elected to the Institute of Medicine (IOM) in 1999, he co-chaired the IOM Committee on the Consequences of Uninsurance. He currently serves on the IOM's Governing Council.

A clinician and researcher, Dr. Kellermann practiced and taught emergency medicine for more than 25 years in public teaching hospitals in Seattle, Washington; Memphis, Tennessee; and Atlanta, Georgia. His research addresses a wide range of issues, including health care spending and information technology, injury prevention, treatment of traumatic brain injury, emergency care and disaster preparedness.

Thomas Scalea, MD

Physician-in-Chief, Adams Cowley Shock Trauma Center, University of Maryland

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Dr. Thomas Scalea attended the University of Virginia, received his M.D. from the Medical College of Virginia, and completed his residency at the Upstate Medical Center in Syracuse, New York and Critical Care Fellowship at New York Medical College. He began his career at the Kings County Hospital/Downstate Medical Center in Brooklyn, New York, became Chief of Trauma and Critical Care and rose to the rank of Professor of Surgery in 1991. While directing the trauma center at Downstate he also founded the Department of Emergency Medicine.

In 1997, Doctor Scalea became the Physician-in-Chief at the R Adams Cowley Shock Trauma Center at the University of Maryland Medical Center, the nation's only freestanding trauma hospital. In 2002, he became the first medical school endowed Professor of Trauma, when he was received the Honorable Senator Francis X. Kelly Professor in Trauma Surgery award. In 2012, Doctor Scalea was named System Chief for Critical Care Services at the University of Maryland Medical System.

He has maintained a continued strong commitment to teaching all medical personnel to include medical students, residents, fellows, attending physicians, nursing staff and U.S. Air Force personnel. He has also implemented Stop the Bleed, which is a national initiative focused on training the public in life-saving skills of hemorrhage control including recognition of life-threatening bleeding, tourniquet application, wound packing and compression. The trauma center has teamed with the U.S. military to advance the study and treatment of severe injuries in both the military and civilian sectors. Since 2001, U.S. Air Force physicians, nurses and medical technicians complete a three-week immersion course to refresh their training in trauma care at the R Adams Cowley Shock Trauma Center. Doctor Scalea visited U.S. Air Force medics and troops in Iraq and the trauma center in Afghanistan. His mission in the war zone was to provide unbiased recommendations on how to improve the system and refine the trauma training.

Doctor Scalea is well published, with more than 500 peer reviewed articles, as well as 190 plus abstracts, 80 book chapters, and more than 800 regional, national, and international presentations.

COL Todd E. Rasmussen, MD, FACS

Vice-Dean of Research, School of Medicine, Uniformed Services University

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Colonel Todd Rasmussen completed his medical degree at Mayo Medical School in 1993 and surgical training at Wilford Hall Medical Center on Lackland Air Force Base in 1999. He returned to Mayo for vascular surgery training in 1999 after which he was assigned to the National Capital Area just before 9/11/2001. Soon after, he began caring for injured returning from Afghanistan at Walter Reed Army Medical Center in Washington, DC.

In 2004 Colonel Rasmussen returned to San Antonio and deployed to Operation Iraqi Freedom at the Air Force Theater Hospital on Balad Air Base. Following this he initiated a vascular injury and hemorrhage control research and innovation program. He's completed tours as a surgeon in Iraq and Afghanistan. Colonel Rasmussen has led surgical training missions in Morocco, Pakistan and Russia and his research efforts have resulted in 200+ publications, 25 book chapters, 2 textbooks and 4 patents. In 2012 he gave a TED talk on the transformation of military trauma care and its impact on medicine.

Colonel Rasmussen served as Deputy Commander of the Institute of Surgical Research from and then directed the larger DoD Combat Casualty Care Research Program at Fort Detrick, Maryland. In 2017 he became Associate Dean for Research at the F. Edward Hébert School of Medicine at the Uniformed Service University where he is the Harris B Shumacker Jr., Professor of Surgery. Colonel Rasmussen is a vascular surgeon at Walter Reed National Military Medical Center.

Jeremy Brown, MD

Director, Office of Emergency Care Research, National Institutes of Health

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Jeremy Brown, M.D., is Director of the Office of Emergency Care Research, where he leads efforts to coordinate emergency care research funding opportunities across NIH. He also serves as NIH's representative in government-wide efforts to improve emergency care throughout the country.

He is the medical officer for the SIREN emergency care research network which is supported by both NINDS and NHLBI. In addition, he is the medical officer for several other grants focused on emergency care. Prior to joining NIH in 2013, Brown served as research director in the George Washington University's Department of Emergency Medicine, where he founded an HIV screening program and received three NIH grants focused on a new therapy for renal colic.

COL Michael R. Davis, MD, FACS

Director, Combat Casualty Care Research Program

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Col Davis completed his undergraduate studies at the University of California, Santa Barbara. He began his military career when he entered medical school at the Uniformed Services University of the Health Sciences in Bethesda, MD. Following medical school Col Davis entered General Surgery training at Wilford Hall Medical Center, Lackland AFB, TX. While in general surgery training, he performed a 2-year vascular surgery research fellowship. Afterward, Col Davis matriculated into Plastic and Reconstructive Surgery training at the University of Alabama at Birmingham School of Medicine. Col Davis is a member of multiple medical societies including the American College of Surgeons and the American Society of Plastic Surgeons. He is board certified in both General Surgery/Trauma and Plastic and Reconstructive Surgery. He was elected a Fellow of the American College of Surgeons in 2010. Col Davis deployed in support of Operation Enduring Freedom in Afghanistan where he served as Chief, Reconstructive Surgery. Following deployment, Col Davis transferred to the US Army Institute of Surgical Research in San Antonio, TX on Special Authorization form the Air Force Surgeon General to begin research in advanced reconstructive surgery and regenerative medicine for the benefit of combat injured. In 2013, Col Davis became Deputy Commander of the US Army Institute of Surgical Research and began the RESTOR™ program (Restorative Endeavor for Servicemembers Through Optimization of Reconstruction). Col Davis has served as the Chair of the Scientific Steering Committee for the US Regenerative Medicine Research Portfolio and is currently the Director, US Combat Casualty Care Research Program.

Michael Hoffmann

Deputy Director for Division of Neurological and Physical Medicine Devices, Office of Device Evaluation, FDA CDRH

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Michael has worked at FDA's Center for Devices and Radiological Health (CDRH), Office of Device Evaluation (ODE) since 2007 in the area of neurological devices including various forms of neurostimulation, neurodiagnostics, and rehabilitation as well as BCI devices, providing review of several different types of medical devices before they are marketed and before many are studied in clinical trials. He began his current role as Deputy Director of the Division of Neurological and Physical Medicine Devices in CDRH/ODE in 2015, which includes oversight of these premarket activities for a wide variety of devices associated with neurology and rehabilitation including but not limited to prosthetic limbs, brain-computer interface systems, rehabilitation robotics, powered exoskeletons, neurosurgical tools, stereotaxic systems, neurodiagnostic systems, and neurointerventional devices as well as a wide variety of implanted and external neurostimulation systems. Michael received his B.S. in Electrical Engineering from the University of Illinois in Urbana-Champaign and his M.S. in Biomedical Engineering from Marquette University.

Mark W. Grinstaff, PhD

Professor, Boston University

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Mark W. Grinstaff is the Distinguished Professor of Translational Research and a Professor of Biomedical Engineering, Chemistry, Materials Science and Engineering, and Medicine at Boston University. He is also the Director of BU's Nanotechnology Innovation Center, the Director of the NIH T32 Biomaterials Program, and the Associate Director for Engineering and Science at the BU Cancer Center. Mark's awards include the ACS Nobel Laureate Signature Award, NSF Career Award, Pew Scholar in the Biomedical Sciences, Camille Dreyfus Teacher-Scholar, Alfred P. Sloan Research Fellowship, the Edward M. Kennedy Award for Health Care Innovation, and the Clemson Award for Applied Research. He is a Fellow of the American Institute of Medical and Biological Engineering, the American Academy of Nanomedicine, and the Royal Chemical Society, and a Founding Fellow of the National Academy of Inventors. Over the course of his tenure, Grinstaff's groundbreaking research has yielded more than 300 peer-reviewed publications, more than 200 patents and patent applications, and more than 325 oral presentations. His students and postdoctoral fellows have given more than 450 poster and 150 oral presentations at national and international conferences. He is a co-founder of five companies and his innovative ideas and his efforts have also led to one new FDA approved pharmaceutical (Abraxane™) and four medical device products (OcuSeal® and Adherus Surgical Sealants®) that improve clinical care for millions of people. His current research activities involve the synthesis of new macromolecules and biomaterials, self-assembly chemistry, imaging contrast agents, drug delivery, and wound repair.

Will Mauldin, PhD

CEO, Co-founder, RIVANNA Medical

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Dr. Mauldin received his PhD in Biomedical Engineering from the University of Virginia with an undergraduate degree in Applied Science from the University of North Carolina, Chapel Hill. At the University of Virginia, Dr. Mauldin held an appointment as an Assistant Research Professor in the Department of Biomedical Engineering. As a co-founder and CEO of RIVANNA, Dr. Mauldin co-invented, engineered, and is leading the commercial launch of Accuro, the world's first ultrasound-based epidural guidance device. Dr. Mauldin has an extensive record in clinical ultrasound with over fifty peer-reviewed publications and patents and his research has won numerous funding awards from the National Science Foundation and National Institutes of Health.

Andriy I. Batchinsky, MD

Senior Research Scientist,
US Army Institute of Surgical Research

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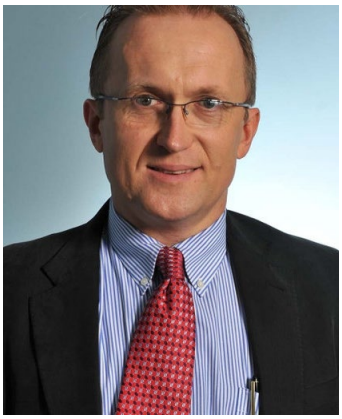

Dr. Batchinsky is a general surgeon by training and a translational scientist by passion. He received his M.D. degree from Uzhgorod State University and general surgery training at the State University in Lviv, Ukraine. After practicing as an emergency/trauma surgeon in Ukraine, in 2001 Dr. Batchinsky joined the U.S. Army Institute of Surgical Research as a National Research Council Fellow and then transitioned to become a research scientist. At present he leads a multi-disciplinary research team engaged in translational research focusing on combat relevant trauma and novel critical care interventions for combat casualties during care at ground level and high altitude. Batchinsky has a special interest and focus in extracorporeal life-support for treatment of lung and multiorgan failure in combat and civilian trauma, as well as resuscitation of patients with massive severe combined injuries and exsanguination. Dr. Batchinsky has also been developing new heparin-free interventions and products for trauma care. Dr. Batchinsky has over 80 peer-reviewed publications; is a reviewer for several international and national medical journals; is a member of multiple societies and a past President of the International Society for Complex Acute Illness; and founder and Director of the Department of Translational Medicine at the University of the Incarnate Word School of Osteopathic Medicine.

CAPT John Gilstad, MD

Director, Armed Forces Radiobiology Research Institute,
Uniformed Services University of the Health Sciences

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Hailing from San Antonio, Texas, John Gilstad graduated from the United States Naval Academy in May 1987 with a bachelor's degree in English. He proceeded to medical school at Uniformed Services University, including two years as a Howard Hughes Medical Institute Research Scholar in protein crystallography at the National Institutes of Health between second and third year. After graduating from USU in 1993 he completed internal medicine residency training at the National Naval Medical Center and achieved board certification in 1996. LT Gilstad served as an internist at Naval Medical Clinic Quantico, Virginia 1996-1008 and the Naval Hospital Roosevelt Roads, Puerto Rico 1998-2001, and on the Executive Committee of the Medical Staff (ECOMS) at both commands. He completed a clinical fellowship in geriatrics at Johns Hopkins University in 2002. From 2002 to 2006 as an internist back at the National Naval Medical Center, LCDR Gilstad launched the command's Clinical Performance Data Committee, and deployed aboard USNS COMFORT in support of Operation Iraqi Freedom, before heading NNMC's Responsible Conduct of Research Department where he improved training for hospital staff undertaking or publishing research. From 2006 to 2009 CDR Gilstad served at Naval Hospital Yokosuka, Japan, as Department Head for Medical Specialties and as Chairman of ECOMS. During this tour he established the hospital's monthly morbidity and mortality conference and combined case conferences with Japanese Self Defense Force Hospital Yokosuka. Returning from Japan, CDR Gilstad reported to the Armed Forces Radiobiology Research Institute (AFRRI) in Bethesda Maryland, as Department Head for Scientific Research, where he led initiatives in financial management, scientific peer review, portfolio management, drug development, and collaboration with NATO scientific colleagues.

CAPT Gilstad reported to Naval Medical Research Unit 2 in Pearl Harbor as Executive Officer in 2012, serving as Acting Commanding Officer from January-May 2013. At NAMRU-2 he focused on shaping the scientific portfolio, and both strategic and practical aspects of transitioning the command to Navy Medical Research Center - Asia in Singapore. CAPT Gilstad was Commanding Officer at Naval Medical Research Unit 3 in Cairo, Egypt from 19 June 2014 through 27 September 2016. He established academic partnership with Stanford University's Center for Innovation in Global Health; drove research realignment to host nation military medicine and DoD Global Health Engagement priorities in Egypt and at the command's detachment in Ghana; and led interagency reforms in local staff human resource management.

Returning to AFRRI from Cairo, CAPT Gilstad served as Chief, Military Medical Operations before being selected as Institute Director, beginning April 2018. CAPT Gilstad served as Navy Delegate to the Young Physicians Section of the American Medical Association from 2002 to 2005. He is a Fellow of the American College of Physicians and has been active in the Navy Chapter. He earned ten-year recertification in Internal Medicine and Geriatrics in 2006 and 2012 respectively, and a third ten-year certification in internal medicine in 2016, from the American Board of Internal Medicine. He is principal investigator on a multi-year collaborative study of hand hygiene implementation in Liberian hospitals funded by USU's Center for Global Health Engagement.

Shalini Prasad, PhD

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Dr. Shalini Prasad is a Professor in the Department of Bioengineering and Biomedical Engineering graduate program. She has been with The University of Texas at Dallas since 2011 and holds adjunct appointments in the Departments of Materials Science and Physics at the University of Texas, Dallas and at the Department of Surgery at the University of Texas Southwestern Medical Center. She received her Bachelor's degree in Electronics and Communication Engineering from the University of Madras, India in 2000 and obtained her Ph.D. degree in Electrical Engineering from University of California, Riverside in 2004. Prior to UT Dallas, she worked at Portland State University, Arizona State University and Wichita State University. Among many other honors, she was awarded with Bomhoff Distinguished Professor and Cecil and Ida Green Professor endowment in Bioengineering and Systems Biology. Dr. Prasad is currently the Director of Biomedical Microdevices and Nanotechnology Laboratory, which focuses on multi-disciplinary research work in the areas of biosensors and bioelectronics which encompass wearable sensors, point-of-care technologies, lab-on-a-chip based devices and gas sensors. Her research focus spans multiple scales spanning from molecules and to systems.

COL (ret.) John B. Holcomb, MD, FACS

Professor, University of Texas Health Science Center, Houston

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John Bradley Holcomb received his M.D. from the University of Arkansas Medical School in 1985. Dr. Holcomb entered the U.S. Army in 1985 and completed his general surgery training in 1991. He then deployed with the Joint Special Operations Command for the next decade. From 2002 to 2008, COL Holcomb was the Commander of the U.S. Army Institute of Surgical Research and Trauma Consultant for the Army Surgeon General. Over the years he has deployed in multiple real-world operations. He is a three-time recipient of the Army's Greatest Invention award. COL Holcomb retired from active duty in 2008 and received the Lifetime Achievement Award in Trauma Resuscitation Science from the American Heart Association, the United States Special Operations Command Medal, and the Service award from the American College of Surgery. He has been a member of the Committee on Tactical Combat Casualty Care since 2001. In 2008, Dr. Holcomb joined the University of Texas Health Science Center at Houston as a Professor of Surgery. In 2016 he received the MAJ Jonathan Letterman award from the National Museum of Civil War Medicine. Dr. Holcomb is actively involved in clinical medicine, education, research, entrepreneurship and is a founder of a small health IT company. He reviews papers for more than 25 journals, has published > 500 peer reviewed articles and serves on multiple boards. Dr. Holcomb and his wife, Dr. Kelly Wirfel, were married in 1998 and have 2 children.

Natalie Wisniewski, PhD

CTO, Co-founder, Profusa, Inc.

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Dr. Wisniewski co-founded Profusa, Inc., a company that is revolutionizing continuous monitoring of body chemistries through *in vivo* biosensors and mobile health. Profusa has developed this technology from concept to clinic with tissue-integrating sensor in humans functioning for a landmark of 4 years. Dr. Wisniewski's research focuses on biomaterial-tissue interactions, specifically the foreign body response and how it affects implanted sensors. Her novel work on tissue-integrating sensors expands the paradigm of biocompatibility beyond surface chemistry to biomechanics and bioelectronics to enable long-term continuous sensors in the body. She is the Principal Investigator on $30M of NIH and DARPA research grants, and has over 100 papers, patents and invited lectures on biosensors, diabetes, tissue hypoxia, and implantable devices. She was awarded the NIH Transformative Research Award for her work on multi-analyte *in vivo* sensing for mobile health applications. Dr. Wisniewski earned engineering degrees from Purdue University (B.S. in Chemical Engineering where she conducted four years of hydrogel research) and Duke University (Ph.D. in Biomedical Engineering where she elucidated mechanisms and effects of biofouling of implantable biosensors). She worked in R&D and manufacturing for consumer products at Kimberly-Clark Corporation and in management consulting with McKinsey & Company. Before starting Profusa she ran her own consulting firm in the San Francisco Bay Area specializing in technical, clinical and regulatory strategy. She currently serves on the Board of Directors and as Chief Technology Officer at Profusa.

Matthew Brenner, MD

Professor, University of California, Irvine

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Matt Brenner is a professor of medicine at the University of California Irvine and is currently Interim Director of the Beckman Laser Institute and Medical Clinic at UC Irvine. He received his M.D. from the University of California San Diego School of Medicine where he also completed internship and residency in Internal Medicine. He underwent fellowship training in Critical Care Medicine at the National Institutes of Health and Pulmonary Medicine at UC Irvine. He has been on the faculty at UC Irvine for 30 years in the Department of Medicine, Division of Pulmonary and Critical Care and leads a research program at the Beckman Laser Institute.

His research has focused on translation of photonics-based technologies to address unmet medical needs in pulmonary and critical care. His work has included high resolution optical coherence tomography for imaging of acute airway injury, and diffuse optical spectroscopy for assessment and monitoring of the acute critical conditions such as hemorrhage and toxic exposures. Most recently, his group has been applying these technologies in the development of antidotes for mass casualty chemical weapons exposures.