## "The Role of Standards in Preventing & Mitigating Health IT Patient Safety Risks" September 7, 2016 Red Auditorium, NIST 100 Bureau Drive Gaithersburg, MD 20899

Health IT Community Technical Workshop for all Stakeholders: Learn and Share Industry Best Practices

## **Bios**

Shilo Anders, PhD, Research Assistant Professor, Center for Research and Innovation in Systems Safety (CRISS), Departments of Anesthesiology and Biomedical Informatics, Vanderbilt University Medical Center. Dr Anders' research focuses on the application of principles of human factors engineering (HFE) and user-centered design (UCD) to improve health information technology. She conducts research on system design, and health information technology development and evaluation in relation to individual and team performance as well as patient safety and quality.

**Peter Basch,** MD, MACP is a practicing general internist in Washington DC, and the Senior Director for Health IT Quality and Safety, Research, and National Health IT Policy for MedStar Health. Dr. Basch is the current chair of the Medical Informatics Committee for the American College of Physicians, and represents the ACP at the Physicians' EHR Coalition. Dr. Basch has been recognized as one of the Top 25 Clinical Informaticists by Modern Healthcare, is a recipient of the Physician Informatics Leadership Award by HIMSS, and was named by Beckers CIO Magazine as one the 26 Smartest People in Health IT.

David Brick, MD, FAAP, FACC, is the Medical Director of New York University Medical Center (NYUMC) – Village Pediatric Cardiology Faculty Practice Group, Director of Outpatient Congenital Heart Program and is an Associate Attending and Clinical Associate Professor in the Department of Pediatrics at NYUMC. Dr. Brick completed his fellowship in Pediatric Cardiology at Columbia University (NY). Thereafter, he served as Section Chief, Pediatric Cardiology, Department of Pediatrics at Saint Vincent Hospital and Medical Center (NY). Dr. Brick interfaced with numerous departments on a wide variety of initiatives. Dr. Brick was Chairperson, Pediatric Quality Assurance Committee, developed the curriculum for pediatric and fetal cardiology for medical students and Residents, served on the HIT Committee which evaluated and implemented a hospital based EMR. Dr. Brick served as a technology decision maker and project leader at SVCMC and as the executive decision maker for IT in his own practice, including implementation and migration of several EMR systems, imaging/video storage and processing systems, HIPPA compliant email and office productivity systems, and associated hardware and network provisioning. Dr. Brick's current work involves human factors approaches to improve the safety, usability, and economic performance of health information systems.

**Bob Calco,** Principal & Chief Architect at Apex Data Solutions, LLC is a seasoned enterprise architect and a proven software innovator with over 20 years of financial services, retail, and healthcare industry experience. Mr. Calco is a certified expert in multiple programming languages, having worked productively in over a dozen programming environments and

platforms as diverse as C++, Delphi, Ada, Java, .NET (C#, VB), JavaScript, LISP, Clojure, Scala, Smalltalk, Ruby and others.

**David C. Classen, M.D., M.S.** Dr Classen is the CMIO at Pascal Metrics, a Patient Safety Organization (PSO) and an Associate Professor of Medicine at the University of Utah and an Active Consultant in Infectious Diseases at The University of Utah School of Medicine in Salt Lake City, Utah.

He received his medical degree from the University Of Virginia School Of Medicine and a Masters of Science degree in medical informatics from the University Of Utah School Of Medicine. He was a member of the Institute of Medicine Committee (IOM) that developed the National Healthcare Quality Report and he was also a member of the Institute of Medicine Committee on Patient Safety Data Standards. He was recently a member of the Institute of Medicine Committee on Health Information Technology and Patient Safety.

He chaired the QUIC (Federal Safety Taskforce)/IHI Collaborative on Improving Safety in High Hazard Areas. Dr Classen was Co Chair of the Institute of Healthcare Improvements Collaborative on Perioperative Safety and the Surgical Safety Collaborative at the Institute of Healthcare Improvement (IHI). In addition Dr Classen is one of the developers of the "Trigger Tool Methodology" at IHI, used for the improved detection of adverse events which is currently being used by more than 1000 different healthcare organizations through out the United States and Europe.

He currently co chairs the National Quality Forum's AHRQ Common Formats Committee and Dr. Classen is an advisor to the Leapfrog Group and has developed and implemented the CPOE/EHR flight simulator for AHRQ and National Quality Forum. This Electronic Health Record (EHR) Flight simulator has been used to evaluate thousand of operational hospital EHR systems after implementation across the United States and The United Kingdom and is a critical part of the National Quality Forum's Safe Practice #16 for Computerized Provider Order Entry within EHRs.

Sarah Corley, MD, FACP is the Chief Medical Officer for NextGen Healthcare Systems, an Electronic Health Record (EHR) vendor. She also practices part time as a primary care Internist in the metropolitan Washington, DC area. She is Vice Chair of the Electronic Health Record Coalition (EHRA). She served as a member of the AMIA EHR 2020 task force and on the HIT Standards Committee's Implementation, Certification, and Testing workgroup. She served a four-year term as Governor of the Virginia Chapter of the American College of Physicians (ACP) and a 6 year term on their National Medical Informatics Subcommittee. She represents the ACP on the Physicians Electronic Health Record Coalition. She received post-graduate training in Medical Informatics at OHSU. She has used electronic health records for the past 22 years and has spoken extensively on the subject. Her research interest lies in using EHRs to improve quality in medical practices.

**Nancy Foster** is the Vice President for Quality and Patient Safety Policy at the American Hospital Association. In this role, she provides advice to public policymakers on legislation and regulations intended to improve patient safety and quality in America's hospitals. Nancy is the

AHA's point person at the National Quality Forum, the Hospital Workgroup of the Measures Application Partnership, and is the liaison to the Joint Commission's Board, and represents hospital perspectives at many national meetings.

Prior to joining the AHA, Nancy was the Coordinator for Quality Activities at the Agency for Healthcare Research and Quality (AHRQ). In this role, she was the principal staff person for the Quality Interagency Coordination Task Force, which brought Federal agencies with health care responsibilities together to coordinate their work and engage in projects to improve quality and safety. She also led the development of patient safety research agenda for AHRQ and managed a portfolio of quality and safety research grants in excess of \$10 million.

She is a graduate of Princeton University and has completed graduate work at Chapman University and Johns Hopkins University. In 2000, she was chosen as an Excellence in Government Leadership Fellow.

Michael C. Gibbons, MD, MPH is the Chief Health Innovation Officer at the Federal Communications Commission's Connect2Health Task Force. He is also the CEO of The Greystone Group, Inc. A technology research, innovation and incubation company. Previously Dr. Gibbons was an Associate Director of the Johns Hopkins Urban Health Institute, and an Assistant Professor of Medicine, Public Health and Health Informatics at Johns Hopkins University. He is a published, author and international speaker who has authored over 75 books, book chapters, research manuscripts, monographs and technical reports in the area of Health IT usability, Consumer Health Informatics and Minority Health. Dr. Gibbons obtained his medical degree from the University of Alabama and then completed residency training in Preventive Medicine, a research fellowship and a Master of Public Health degree all from Johns Hopkins.

**Limor Hochberg** is a Human Factors Specialist at UL-Wiklund, where she conducts formative, summative, and comparison usability tests of hardware and software devices intended for both home and clinical use. She is the recent co-author of a government publication on electronic health record design for the National Institute of Standards ("Technical Basis for User Interface Design of Health IT"), which will be used as a key input upcoming AAMI guidance on Health IT user interface design. Limor received an M.S. in Applied Experimental and Engineering Psychology from the Rochester Institute of Technology and a B.A. in Cognitive Science from Ben-Gurion University of the Negev.

**David R. Hunt,** MD, FACS, joined the Office of the National Coordinator for Health Information Technology in October 2007. He currently serves as the medical director for health IT adoption and patient safety in the Office of Clinical Quality & Safety (OCQS), where he focuses on patient safety, healthcare disparities, and strengthening ONC programs that promote the effective and safe implementation of electronic health records. At ONC, Dr. Hunt merges years as a practicing surgeon and leader in surgical quality and patient safety with hands-on experience at all levels of information technology from programmer to systems analyst and software developer. Prior to joining ONC he served at the Centers for Medicare and Medicaid Services (CMS) from 2002 – 2007 where he led the Surgical Care Improvement Project (SCIP) and the Medicare Patient Safety Monitoring System (MPSMS), two of the largest surgical quality and patient safety programs in the nation. Dr. Hunt was awarded a bachelor's degree in

biochemistry from the University of Rochester (NY) and a medical degree from the Howard University College of Medicine. He also completed his residency in surgery at Howard University and became a diplomate of the American Board of Surgery in 1991. Practicing in both private and academic settings, Dr. Hunt served as a Clinical Assistant Professor of Surgery at Howard University, chair of surgical peer review at various hospitals in the Washington metropolitan area, and has been a fellow of the American College of Surgeons since 1993.

**Paul Latkany,** MD is Clinical Associate Professor at the New York Eye and Ear Infirmary of Mount Sinai. Dr. Latkany has been board certified in ophthalmology, clinical informatics, and internal medicine. He is separately fellowship trained in ocular immunology, vitreoretinal surgery, and clinical informatics. He has worked with the federal government on many informatics projects. His interest is in optimizing patient outcomes through provider physical and cognitive human computer interaction harmonization.

**Joe Lewelling,** MA, MAIT, Vice President Health IT and Emerging Technologies, AAMI. Mr. Lewelling serves as the Secretary of ISO/TC 215-IEC/SC62A Joint Working Group 7, which develops international standards for the safety, effectiveness and security of health software and health IT systems. He is also spearheading AAMI's Health IT Initiative, which is developing standards for risk management, quality systems and usability design processes for health IT.

**Edwin Lomotan**, MD, Medical Officer and Chief of Clinical Informatics, Division of Health IT, Center for Evidence and Practice Improvement, Agency for Healthcare Research and Quality. Ed leads AHRQ's Patient-Centered Outcomes Research (PCOR) Clinical Decision Support (CDS) initiative, represents the agency on health IT-related work groups, and as a program official maintains a portfolio of grants focused primarily on CDS and on health IT related to child health. Ed is board-certified in pediatrics and clinical informatics.

**Emily S. Patterson,** PhD, Associate Professor, Ohio State University. Dr. Patterson's research focuses on applying human factors knowledge and methods to improve the innovativeness, usefulness, and usability of health information technology.

Raj Ratwani, PhD, is the Scientific Director of MedStar Health's National Center for Human Factors in Healthcare and is an Assistant Professor of Emergency Medicine at Georgetown University's School of Medicine. He received his PhD in human factors and applied cognition and was a National Research Council post-doctoral fellow at the U.S. Naval Research Laboratory. His research career is focused on improving the safety, efficiency, and quality of healthcare through the application of human factors and cognitive science. His research has been funded by federal agencies such as the National Institutes for Health, the Agency for Health Research and Quality, the Office of the National Coordinator, as well as by private foundations. Dr. Ratwani has authored over forty peer-reviewed publications and has been invited to give numerous talks in the area of human factors, health information technology, and patient safety. In addition to his research efforts, he has testified in front of, and advised, the U.S Senate Health, Education, Labor and Pensions (HELP) committee and several other federal advisory committees focused on improving health information technology safety.

Jack Resneck Jr., MD, a dermatologist and health policy expert from the San Francisco Bay Area, was elected to the American Medical Association Board of Trustees in June 2014. Passionate about advocacy for physicians and patients, Dr. Resneck has held several leadership positions in organized medicine. In addition to his work with the AMA, he served as president of the California Society for Dermatology and Dermatologic Surgery and on the board of directors of the American Academy of Dermatology. Dr. Resneck is Vice-Chair and Professor of dermatology at the University of California, San Francisco, and holds a joint appointment at the Philip R. Lee Institute for Health Policy Studies. He is deeply engaged in modernizing medical education and teaching the next generation of physicians, having directed a residency program for many years and chaired the committee that oversees UCSF's innovative medical school curriculum. In addition to his clinical practice, he has been deeply involved in UCSF's implementation of its electronic health record. Dr. Resneck is active in health services research, and is a member of the editorial board of the *Journal of the American Academy of Dermatology*.

**Megan Sawchuk**, MT (ASCP), is a Health Scientist on the health IT team in the Division of Laboratory Systems, Centers for Disease Control and Prevention (CDC). Ms. Sawchuk's work at CDC focuses on ensuring laboratory data in health IT meets regulatory requirements by engaging clinical professionals in health IT development, supporting the development of interoperable health IT standards, and advancing the usability and safety of information in health IT.

Suzanne B. Schwartz, MD, MBA is the Associate Director for Science and Strategic Partnerships in the Center for Devices and Radiological Health (CDRH) at the FDA. She also serves as the Director (Acting) of CDRH's Emergency Preparedness/Operations and Medical Countermeasures program. Suzanne represents CDRH/FDA across inter-Agency initiatives for the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) for chemical, biological, radiological and nuclear threats (CBRN), natural disasters and emerging infectious diseases.

In her role as CDRH's Emergency Operations Coordinator, Suzanne is responsible for preparedness and incident response to matters concerning cybersecurity of medical devices and their networked systems. Her programmatic efforts have evolved beyond response to include increasing awareness, educating, outreach, partnering and coalition-building within the Healthcare and Public Health Sector (HPH). Suzanne chairs the CDRH Cybersecurity Working Group which is tasked with formulating policy on medical device cybersecurity on behalf of the Agency. She also serves as co-chair of the Government Coordinating Council (GCC) for the HPH Critical Infrastructure Sector, focusing on the sector's healthcare cybersecurity initiatives. Suzanne earned an MD from Albert Einstein College of Medicine of Yeshiva University in New York in 1988, trained in General Surgery and Burn Trauma; an executive MBA from NYU Stern School of Business in 2012, and completed Cohort X of the National Preparedness Leadership Initiative – Harvard School of Public Health & Harvard Kennedy School of Government executive education in June 2013.

**Jeanie Scott,** MS, Director, Informatics Patient Safety, Health Informatics Division of Veterans Health Administration (VHA). Ms. Scott's work at VHA focuses on ensuring safer health IT. Her efforts include developing strategies for safety assessment during development, deployment

and use of health IT. She currently serves on Partnership for Health IT Patient Safety advisory board, and Health IT Safety Collaborative Roadmap Work Group on Usability and Medication Management.

**Debora Simmons,** PhD, RN, CCNS, FAAN is an Assistant Professor at the School of Biomedical Informatics at the University of Texas Houston Health Science Center. She is a Clinical Nurse Specialist in critical and acute care with an extensive background in technology and complex patient care systems. Simmons was an investigator for the Institute of Healthcare Excellence at The University of Texas M. D. Anderson Cancer Center and a member of the University of Texas Center Of Excellence for Patient Safety Research and Practice funded by the Agency for Healthcare research and Quality. Currently her research focuses on environmental influences in safety, EHR use and error analysis. Dr. Simmons is well known in safety in education and healthcare practice. She has authored and co-authored peer reviewed manuscripts and book chapters in near miss reporting, team work, patient safety, just culture and error analysis. She is a fellow of the American Academy of Nurses.

**Hardeep Singh,** MD, MPH, is the Chief, Health Policy, Quality & Informatics Program, Houston VA Health Services Research Center of Innovation & Baylor College of Medicine. He conducts multidisciplinary research on health IT-related safety and diagnostic errors. He cochaired the National Quality Forum committee on recommendations for health IT safety measurement and co-developed the "ONC SAFER Guides" that provide national recommendations for safe electronic health record use. In 2014, he received the prestigious Presidential Early Career Award for Scientists and Engineers (PECASE) from President Obama for his pioneering work.

**Robert Snelick,** MS (Computer Science), is the project lead and chief architect for the NIST HL7 v2 Conformance and Interoperability Testing Framework and Tools at the National Institute of Standards and Technology (NIST).

Ronni Solomon, JD, serves as Executive Vice President and General Counsel at ECRI Institute. Her work spans many of the Institute's research, consultative, publishing and educational initiatives for preventing patient injuries and deaths. She serves as ECRI Institute's executive sponsor for major projects in both the public and private sector and leads numerous initiatives to improve safe and effective care. She convened the Partnership for Health IT Patient Safety, a multi-stakeholder collaborative seeking to improve health IT safety within a non-punitive learning environment by analyzing safety issues, designing recommendations for improvement, and disseminating best practices. She has authored numerous publications on a variety of healthcare safety issues.

**Dr. Nancy Staggers,** RN, PhD, FAAN, President, Summit Health Informatics and Adjunct Professor, University of Utah, has an extensive background in clinical informatics spanning operational health IT and academe. She held executive health IT positions in the Department of Defense, at the University of Utah and elsewhere where she led enterprise EHR projects. Her academic career includes the University of Utah and University of Maryland. Her research program is on the usability of health IT products, especially for complex activities. AMIA NIWG selected her as a NI Pioneer in 2006, and she received the AMIA Virginia K. Saba award in 2013

for her NI career. She is leading a HIMSS national effort on nurses' user experience issues and recommendations for solutions. She is co-author of the textbook, *Health Informatics: An Interdisciplinary Approach*.

**Brian Stanton,** Supervisory Cognitive Scientist, Visualization and Usability Group, National Institute of Standards and Technology (NIST). Mr. Stanton works on the Common Industry Format project developing usability standards and investigates usability and security issues ranging from password rules and analysis to privacy concerns. He has also worked on biometric projects for the Department of Homeland Security, Federal Bureau of Investigation's Hostage Rescue Team, and with Latent Fingerprint examiners.

**Kevin Stine** is the Chief of the Applied Cybersecurity Division in the National Institute of Standards and Technology's Information Technology Laboratory. In this capacity, he leads NIST collaborations with industry, academia, and government on the practical implementation of cybersecurity and privacy through outreach and effective application of standards and best practices. The Applied Cybersecurity Division develops cybersecurity guidelines, tools, and reference architectures in diverse areas such as public safety communications; health information technology; smart grid, cyber physical, and industrial control systems; and programs focused on cybersecurity outreach to small businesses and federal agencies. The Division is home to several priority national programs including the National Cybersecurity Center of Excellence, the National Strategy for Trusted Identities in Cyberspace, and the National Initiative for Cybersecurity Education (NICE). Recently, he led NIST's efforts to develop the Framework for Reducing Cybersecurity Risk to Critical Infrastructure (Cybersecurity Framework) as directed in Executive Order 13636.

**Sheryl Taylor**, BSN, RN, IT Specialist, Software and Systems Development, ITL, National Institute of Standards and Technology's (NIST). Ms. Taylor's work at NIST currently focuses on development of conformance tools and the associated artifacts for testing health IT modules' use of interoperability standards related to messaging of immunization data, bio-surveillance data, reportable laboratory results, and ePrescribing data.

**Ross Teague**, Ph.D. is Director of User Experience at Allscripts, a global leader in healthcare technology. He leads a team of researchers, designers, and clinicians in the creation of products and solutions that improve patient and provider lives. He has defined and currently trains Allscripts associates on the use of a formal user-centered design process and participates in the Allscripts Patient Safety Board. Dr. Teague has served on several workgroups with the EHRA including UCD Best Practices and Standardized Use Cases.