



**DIAGNOSTIC ERRORS & PATIENT SAFETY:  
WHAT CAN WE DO?**

**David Newman-Toker, MD, PhD**

Director, Armstrong Institute Center for  
Diagnostic Excellence  
Johns Hopkins Medicine

Monday, November 4, 2019

12:00-2:00 pm

Emory University School of Medicine

## Diagnostic Errors & Patient Safety: What Can We Do?

**David Newman-Toker, MD, PhD**

Director, Armstrong Institute Center for Diagnostic Excellence  
Johns Hopkins Medicine

Monday, November 4, 2019  
12:00 – 2:00 pm  
School of Medicine Auditorium  
Emory University

**12:00 – 12:05 pm: Welcome, Introductions**

Fred Sanfilippo, MD, PhD  
Director, Emory-Georgia Tech Healthcare Innovation Program

**12:05 – 12:45 pm: Keynote Presentation**

Diagnostic Errors & Patient Safety: What Can We Do?  
David Newman-Toker, MD, PhD  
Director, Armstrong Institute Center for Diagnostic Excellence  
Professor of Medicine  
Johns Hopkins Medicine

**12:45 – 1:30 pm: Panel Presentations**

William Bernstein, MD, PhD  
Chief Medical Officer  
Chief Quality & Patient Safety Officer  
Emory Healthcare

John Duke, MD, MS  
Director, Center for Health Analytics and Informatics  
Georgia Tech Research Institute (GTRI)

Robert Swerlick, MD  
Alicia Leizman Stonecipher Chair of Dermatology  
Emory University School of Medicine

Ira Lubin, PhD, FACMG  
Quality and Safety Systems Branch  
Office of the Deputy Director for Public Health Scientific Service  
Centers for Disease Control and Prevention

**1:30 – 2:00 pm: Open Discussion Q&A**



**DAVID NEWMAN-TOKER, MD, PHD**  
Director, Armstrong Institute Center for  
Diagnostic Excellence and Professor of  
Neurology  
Johns Hopkins Medicine

David Newman-Toker, MD, PhD is an internationally-recognized leader in neuro-otology, acute stroke diagnosis, and the study of diagnostic errors. He completed his undergraduate studies at Yale University, his medical degree at University of Pennsylvania, his residency and neuro-ophthalmology fellowship training at Harvard University, his neuro-otology fellowship training at Johns Hopkins University School of Medicine, and his doctoral degree in clinical research methods at the Johns Hopkins Bloomberg School of Public Health. He has served as a full-time faculty member at the Johns Hopkins University School of Medicine since 2002. He is Professor of Neurology, Otolaryngology, and Ophthalmology, with joint appointments in Emergency Medicine, Acute Care Nursing, Health Sciences Informatics, Epidemiology, and Health Policy & Management at Johns Hopkins.

Dr. Newman-Toker's clinical and research focus is in diagnosis of acute disorders affecting the brainstem and cranial nerves, particularly stroke. He is recognized for his research in novel eye-movement-based bedside methods for diagnosing stroke in patients with acute dizziness and vertigo in the emergency department. He serves as Director of the Division of Neuro-Visual & Vestibular Disorders in the Department of Neurology. He also directs the Armstrong Institute Center for Diagnostic Excellence whose mission is to catalyze efforts to improve diagnostic performance, develop the science of diagnostic safety, and enhance diagnostic research. He has been the principal investigator for multiple NIH, AHRQ, and foundation grants. He has published over 100 journal articles and given more than 250 invited lectures on dizziness and diagnostic errors. He is a leader in the national and international movements to eliminate patient harms from diagnostic error. He has served as an expert consultant on diagnostic safety and quality to AHRQ, the National Quality Forum, and the National Academy of Medicine. He currently serves as President of the Society to Improve Diagnosis in Medicine (SIDM).



**WILLIAM BORNSTEIN, MD, PHD**  
Chief Medical Officer  
Chief Quality & Patient Safety Officer  
Emory Healthcare

Dr. Bornstein is Professor of Medicine (Endocrinology, Metabolism, and Lipids) and has the distinction of Master Clinician in the Emory University School of Medicine Department of Medicine. He also serves as the Chief Medical Officer and Chief Quality & Patient Safety Officer for Emory Healthcare. In these latter roles, Dr. Bornstein has led the development of a quality and safety program that has been nationally recognized for breakthrough improvements. In 2006, he led a major expansion of the Emory Healthcare quality program with the formation of a new Emory Healthcare Office of Quality. The Office of Risk and Insurance Services merged with the Office of Quality in 2009, to form the Emory Healthcare Office of Quality and Risk, which Dr. Bornstein directs.

Dr. Bornstein has been a champion of system approaches to improving quality, including the development of new care models and the leveraging of information technology to this end. A major current focus is enterprise-wide care transformation built on a platform of a "Lean" enterprise operating system. This work has been initiated under the auspices of the James C. Kennedy Initiative funded by a generous gift from the James M. Cox Foundation.

Dr. Bornstein is a Board-certified internist and endocrinologist and continues to care for patients in the Emory Clinic. He received his undergraduate degree in mathematics from Dartmouth College and his MD and PhD (Cell & Molecular Biology) from the Medical College of Georgia. He did his internal medicine training at Duke, where he served as assistant chief resident, and his fellowship in endocrinology and metabolism at the Massachusetts General Hospital (MGH) and Harvard Medical School.

Dr. Bornstein is a recognized national leader in quality, safety, and the use of information technology in improving healthcare delivery. He has served on a number of national committees and advisory bodies in these areas including the Clinical Evaluative Sciences Council Steering Committee and the Risk Adjustment Task Force of the University HealthSystem Consortium (UHC), the Professional and Technical Advisory Committee for the hospital accreditation process of The Joint Commission, the Standards and Survey Procedures Committee of the Joint Commission, and the steering committee of the Integrating Quality Initiative of the Association of American Medical Colleges (which he chaired from 2014-2016). Dr. Bornstein currently chairs the Vizient University HealthSystem Consortium Medical Leadership Network Steering

Committee and serves on the AHRQ PSNet Technical Expert Panel. In 2012, he was appointed by Georgia Governor Nathan Deal to serve on the Governor's Special Advisory Commission on Mandated Health Insurance Benefits and in 2014 to serve on the Governor's Ebola Response Team. He also serves on the Board of Directors of the Grady Memorial Hospital Corporation and the CHRISTUS Health Board Quality and Patient Safety Committee.



## **JON DUKE, MD, MS**

Director, Center for Health Analytics and informatics  
Georgia Tech Research Institute (GTRI)

Jon Duke, MD, is the director of health informatics at Georgia Tech's College of Computing, School of Computational Science & Engineering, and holds a joint appointment as a principal research scientist in the Georgia Tech Research Institute's (GTRI) Information & Cyber Sciences Directorate.

He leads big data in medicine research projects. Duke previously held an appointment as a senior scientist and director of health analytics and advanced text mining at the Regenstrief Center for Biomedical Informatics. While at Regenstrief, he also led the Drug Safety Informatics Lab as well as a 5-year partnership with Merck & Co, which conducted more than 45 projects involving at least 70 faculty and staff.

Duke leads Georgia Tech's initiative to improve human health through better capture, interpretation, and applications of data. This effort incorporates a spectrum of expertise including machine learning, natural language processing, high-performance computing, sensors, cybersecurity and health data interoperability. While applying advanced technology, these efforts manifest through real-world projects supporting not only research environments but health care systems, government and industry partners, and community collaborators.

Duke's previous work focused on advancing techniques for conducting research through structured, unstructured and patient-generated health care data, with applications spanning research, quality and clinical domains. Over the last several years, Duke has directed more than \$21 million in data research for industry and government sponsors. He has worked to expand on strategies for capturing better health care data, streamlining insights for stakeholders and delivering effective data-based interventions. In 2014, Duke helped found the Observational Health Data Sciences and Informatics (OHDSI, pronounced "Odyssey") program, which aims to develop open-source solutions to deliver value in health data through large-scale analytics.

Duke received his bachelor's in 1994 from Emory University, and his M.D. from Harvard Medical School in 2000. He completed his internal medicine residency with Brigham and Women's Hospital in Boston in 2003. In 2010, he earned a master degree in human-computer interaction from Indiana University. During this same time (2008 to 2010) he had a Fellowship in Medical Informatics with the Regenstrief Institute.

Board certified in internal medicine since 2003, Duke served as an adjunct professor of medicine, an adjunct professor of informatics and an adjunct professor of knowledge informatics and translation at the Indiana School of Medicine from 2010 to 2014. He was a resident clinical instructor at Harvard Medical School from 2000 to 2003. In addition to co-founding the OHDSI Collaborative, Duke is a member of the Health Information and Management Systems Society, the American Medical Informatics Association and the American College of Physicians.



## **ROBERT SWERLICK, MD**

Professor and Alice Leizman Stonecipher Chair of Dermatology  
Emory University School of Medicine

Robert Swerlick MD is Professor and Alice Leizman Stonecipher Chair of Dermatology. He also serves as a staff physician for the Division of Dermatology at both Grady Memorial Hospital and the Atlanta VA Medical Center. For more than 20 years, his research focused on bench studies.

His research initially focused on regulated expression and function of adhesion molecules in dermal endothelial cells. Over time, these studies evolved into a focus on gene regulation and signaling pathways. As his responsibilities changed with the assumption of the Chairman role, Swerlick elected to close his basic lab and redirect resources to support bench research in the laboratory of junior faculty members. Dr. Swerlick has a developing research focus on the adoption of structured data collection in clinical practice of Dermatology as a means to improve clinical outcomes, identify errors, and identify unmet clinical needs.

He earned his medical education at the University of Virginia, interned at City Hospital in Baltimore, Maryland and completed his residency program as the Chief Resident at the University of Virginia Medical Center. He was recognized by Atlanta Magazine's 2016 List of Top Doctors; received the Dermatology Excellence in Teaching Award as well as the the Emory School of Medicine Dean's Clinical Scholar Award.



## **IRA LUBIN, PHD, FACMG**

Office of the Deputy Director for Public Health  
Scientific Service  
Centers for Disease Control and Prevention

Dr. Lubin is ABMG board certified clinical molecular geneticist. He joined the CDC in 1999 within the Division of Laboratory Systems at the Centers for Surveillance, Epidemiology, and Laboratory Services. He is a graduate of the USDA Executive Potential Program and has held Team/project Lead and Branch Chief positions at the CDC.

Dr. Lubin led and otherwise participated in many initiatives to assure and advance the quality of clinical laboratory testing in the US and internationally. Dr. Lubin contributed to numerous practice guidelines and translational research initiatives. He served as a laboratory practice subject matter expert to AHRQ, CMS, HRSA, and NIH. This includes presentations to federal advisory committees to support the development of recommendations to the Department of Health and Human Services. With respect to work that intersects with diagnostic excellence, Dr. Lubin conceived, developed, and led efforts, in collaboration with partners from the medical community, to demonstrate the capability of the laboratory to leverage clinical and laboratory data derived from a medical data warehouse to design and execute quality improvement initiatives that produce measurable improvements to patient and population health outcomes. He also serves as lead to the evaluation workgroup under a larger CDC project, Adapting Clinical Guidelines for the Digital Age. This initiative is taking a Kaizen (continuous quality improvement) approach to integrate clinical decision support into the guideline development process that links to a guided implementation designed to measure patient and population health impact.

Dr. Lubin was an invited participant to a National Academy of Sciences Workshop to consider next-step for advancing recommendations within the report, Improving Diagnosis in Health Care. Earlier in his career at CDC, Dr. Lubin co-led the development of an international EMMY award-winning educational program, Genetics in Clinical Practice: A Team Approach. He also led efforts to improve the quality and usefulness of clinical genetic test result reports that informed guidance and practices within the US and abroad. He served as the elected chair to the genetics committee of the Association for Molecular Pathology and the Public Health Special Interest Group of the American College of Medical Genetics. Dr. Lubin co-chaired a CLSI document development committee tasked to develop guidance for clinical nucleic acid sequencing (that includes next-generation sequencing) and was the US technical representative to the Organization for Economic Development (OECD) in crafting international guidance for clinical molecular genetics and proficiency testing.



**FRED SANFILIPPO, MD, MS, PHD**  
Director, Emory-Georgia Tech Healthcare  
Innovation Program

Fred Sanfilippo, MD, PhD directs the Emory-Georgia Tech Healthcare Innovation Program, which has a mission to accelerate innovation in healthcare research, education, and service. For over 30 years he has been an academic leader at Duke, Johns Hopkins, Ohio State and Emory; serving as a division chief, department chair, program/center director, dean, medical center CEO, university senior/executive VP, health system board chair and academic health center CEO. During that time he has led organizational and cultural changes yielding improved academic, clinical, and financial performance at each institution. He also led the creation of the US Scientific Registry of Transplant Recipients; Johns Hopkins Medical Labs; a personalized health plan (YP4H) at OSU; and novel departments and centers in areas ranging from biomedical informatics to personalized and integrative health.

Sanfilippo received his BA and MS in physics from the University of Pennsylvania, and his MD and PhD in immunology from Duke, where he also did his residency training, receiving board certification in Anatomic & Clinical Pathology, and Immunopathology.

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