

Harvard-Yale Biosafety Symposium & Professional Development Courses

April 23-24, 2024

Harvard Medical School



Photo courtesy of Harvard University



HARVARD **Yale**
MEDICAL SCHOOL

Harvard-Yale Symposium 2024

SPEAKERS/PANELISTS/MODERATORS

Julien Farland, MS, CBSP, RBP
Boston Public Health Commission

Simon Muchohi, PhD, MPH, CIH, CSP, CBSP, RBP, DTM
Boston Public Health Commission

Patrick Conley, MS, CBSP, NREMT
Merrick and Company

Megan Palmer, PhD
Gingko Bioworks

Sam Weiss Evans, D.Phil
National Security Commission on Emerging Biotechnology

Rebecca Ryan Caruso, MPH, RBP, CBSP
Harvard Medical School

Carl Cowan, MS, NRP, CCP-C
Harvard Medical School

Deborah Barbeau, MD, PhD, MSPH
Occupational & Environmental Health Network

David Hill, MEM, CIH
Wadsworth Center

Randy Albrecht, PhD, RBP
Icahn School of Medicine at Mount Sinai

Joshua Turse, PhD, CBSP
Cornell University

Francine Rogers, MS, MBA, CBSP, RBP, ALM
Tufts University

Karen Byers, MS, RBP, CBSP
Dana Farber Cancer Institute

Benjamin Fontes, MPH, CBSP
Yale University

Maren Schniederberend, PhD, RBP
Yale University

Julia Kontos, MS, RBP
Yale University

Samuel Telford, ScD
Tufts University

Terry Kwan, BA, MSEd
Non-Institutional Biosafety Committee Member, Harvard Medical School

David Gillum, MS, RBP
University of Nevada, Reno

AGENDA

TUESDAY, APRIL 23

Professional Development Course (AM Session): Public Health Biosafety		
7:30 am	Registration	
8:00 am	Julien Farland, MS, CBSP, RBP Simon Muchohi, PhD, MPH, CIH, CSP, CBSP, RBP, DTM	Public Health Biosafety
10:00 am	Break	
10:15 am	Julien Farland, MS, CBSP, RBP Simon Muchohi, PhD, MPH, CIH, CSP, CBSP, RBP, DTM	Public Health Biosafety (Continued)
12:00 pm	Lunch	
Professional Development Course (PM Session): Intersection of Biosafety and Infection Control		
12:00 pm	Lunch	
1:00 pm	Patrick Conley, MS, CBSP, NREMT	Intersection of Biosafety and Infection Control
2:45 pm	Break	
3:00 pm	Patrick Conley, MS, CBSP, NREMT	Intersection of Biosafety and Infection Control (Continued)

AGENDA

WEDNESDAY, APRIL 24

7:30 am	Registration/Continental Breakfast	
8:15 am	Keynote Introduction	
8:20 am	Megan Palmer, PhD (Keynote Speaker)	Safety, Security & Social Responsibility in Synthetic Biology
9:30 am	Sam Weiss Evans, D.Phil	Strengthening Biosecurity Through the National Security Commission on Emerging Biotechnology
10:05 am	Break	
10:25 am	Rebecca Ryan Caruso, MPH, RBP, CBSP (Moderator) Carl Cowan, MS, NRP, CCP-C Deborah Barbeau, MD, PhD, MSPH David Hill, MEM, CIH	Panel Discussion: Emergency Management and Occupational Health
12:00 pm	Lunch	
1:00 pm	Randy Albrecht, PhD, RBP David Hill, MEM, CIH Joshua Turse, PhD, CBSP Francine Rogers, MS, MBA, CBSP, RBP, ALM Karen Byers, MS, RBP, CBSP Deborah Barbeau, MD, PhD, MSPH Benjamin Fontes, MPH, CBSP Maren Schniederberend, PhD, RBP Julia Kontos, MS, RBP Samuel Telford, ScD Terry Kwan, BA, MEd	Panel Discussion: High Risk Mock IBC Protocol Review <i>Five IBC protocols including Risk Group 2 and 3 human pathogens and recombinant or synthetic nucleic acid molecules experiments will be presented and reviewed. Attendees will be given access to all IBC documents one week prior to the Symposium. Two additional Risk Group 3 protocols will be provided for self-paced learning.</i>
3:15 pm	Break	
3:30 pm	David Gillum, MS, RBP	Biosafety and Biosecurity Oversight of Dual Use Research of Concern (DURC) and Enhanced Pathogens of Pandemic Potential (ePPP)
4:15 pm	Closing Networking Reception	

ABOUT OUR SPEAKERS



Julien Farland, MS, CBSP, RBP

Director, Environmental Hazards, Boston Public Health Commission

Julien Farland is the Director of Environmental Hazards at the Boston Public Health Commission. Inspectors in the Environmental Hazards Program conduct inspections in homes to respond to requests from the public. Inspectors respond to a variety of hazards, including mold, lead, bed bugs, asbestos, indoor air pollution, and chemical spills. The program also regulates several types of businesses in Boston including asbestos removal, body art, tanning salons, medical marijuana dispensaries, solid waste businesses, and indoor ice-skating rinks. He was previously Director of Biological Safety at Biological Safety at Boston Public Health Commission. Julien has a Master of Science degree from Harvard School of Public Health and is a Certified Biological Safety Professional and a Registered Biosafety Professional.



Simon Muchohi, PhD, MPH, CIH, CSP, CBSP, RBP, DTM

Director, Biosafety Program, Boston Public Health Commission

Dr. Simon Muchohi is the Director of the Biosafety Program at the Boston Public Health Commission (the local board of health for the City of Boston in Massachusetts). The Biosafety Program enforces regulations to ensure safe operation of biological research labs in the City of Boston. Dr. Muchohi's key responsibilities include permitting of life sciences labs in universities/colleges, hospitals/medical centers, and the pharmaceutical/biotechnology industries. These include the BSL-4/ABSL-4 Labs at BU NEIDL, 7 BSL-3/ABSL-3 Labs, and about 70 pharma/biotechs in Boston. Dr. Muchohi has over 20 years of professional experience in the Environmental Health and Safety (EHS) field. He has extensive knowledge and expertise in research lab safety, risk assessment, hazard identification and mitigation, accident/incident investigation, and lab inspections/audits. Simon is a Certified Industrial Hygienist (CIH) by the *Board of Global Credentialing* and a Certified Safety Professional (CSP). He also holds Certified Biosafety Professional (CBSP) and Registered Biosafety Professional (RBP) from ABSA International. In 2021, Simon was awarded the Distinguished Toastmaster (DTM) Award for leadership and communication excellence by Toastmasters International. Dr. Muchohi received his Master of Public Health (MPH) with a concentration in Occupational and Environmental Health from the Harvard T.H. Chan School of Public Health in 2011. He also holds a Doctor of Philosophy (PhD) in Clinical Pharmacology from The Open University, United Kingdom, a Master of Science (MSc) in Pharmacology & Toxicology from the University of Nairobi, Kenya, and a Bachelor of Science (Major: Chemistry) from Moi University in Kenya. Before immigrating to the USA in 2011, Dr. Muchohi worked with world-renowned research experts in Kenya, Africa and the United Kingdom on clinical pharmacology for the treatment of infectious diseases such as malaria, *Mycobacterium tuberculosis* (TB) and HIV/AIDS. His research findings have been published in various peer-reviewed journals and widely cited by other researchers throughout the world (<https://scholar.google.com/citations?user=iNj0z-IAAAAJ&hl=en>).



Patrick Conley, MS, CBSP, NREMT

Senior Scientist, Science and Technology Division, Merrick and Company

Patrick Conley is a Senior Scientist within the Science and Technology division of Merrick and Company. In his role, Patrick is the primary healthcare liaison for Merrick's healthcare services platform designed to assist healthcare institutions manage the environment care, hazardous materials and waste, hazardous drugs and hazardous biologics, and infection prevention services, as well as to support clinical laboratories and therapeutic production facilities operate at their best. As a dedicated biosafety professional and industrial hygienist, Patrick has focused on developing value driven safety programs and services supporting basic research, translational medicine, patient care, and community education. Patrick has a bachelor's in microbiology and a master's degree in industrial hygiene, as well as is a certified Biosafety Professional, a registered Biosafety Officer, and a licensed Emergency Medical Technician. Prior to coming to Merrick, Patrick was the Director of IBC Operations at Clinical Biosafety Services, where he led a team of credentialed biosafety and clinical safety professionals to provide Institutional Biosafety Committee and Biosafety services to healthcare providers, nurses, and clinical research personnel conducting human gene transfer research at clinics and hospital facilities across the continental United States and beyond.

ABOUT OUR SPEAKERS



Megan Palmer, PhD

Senior Director, Public Impact, Ginkgo Bioworks
Adjunct Professor, Bioengineering, Stanford University

Dr. Megan J. Palmer is Senior Director of Public Impact at Ginkgo Bioworks where she leads efforts to ensure that biological engineering is developed with care. She is also an adjunct professor of Bioengineering at Stanford University where she previously served as the Executive Director of Bio Policy & Leadership Initiatives, leading programs to explore how biological science and engineering is shaping our societies, and to guide innovation to serve public interests. Dr. Palmer has led many programs aimed at developing best practices and policies for the responsible development of bioengineering. She co-chairs the World Economic Forum Global Future Council on Synthetic Biology, and was a member of the Council of the Engineering Biology Research Consortium (EBRC). For a decade she led social responsibility programs for the international Genetically Engineered Machine (iGEM) competition. She also served as Deputy Director of Policy and Practices for the multi-university National Science Foundation (NSF) Synthetic Biology Engineering Research Center (Synberc). She founded the Synthetic Biology Leadership Excellence Accelerator Program (LEAP) and serves on the board of directors of Revive & Restore. Previously, Dr. Palmer was a Senior Research Scholar and William J. Perry Fellow at the Center for International Security and Cooperation (CISAC) at Stanford, of which she is now an affiliate. She was also a project scientist at the California Center for Quantitative Bioscience (QB3) at the University of California Berkeley and a postdoctoral scholar in the Bioengineering Department at Stanford University. Dr. Palmer received her Ph.D. in Biological Engineering from M.I.T. and a B.Sc.E. in Engineering Chemistry from Queen's University, Canada.



Sam Weiss Evans, D.Phil

Senior Policy Advisor, National Security Commission on Emerging Biotechnology

Sam Weiss Evans is a Senior Policy Advisor for the National Security Commission on Emerging Biotechnology, where he focuses on efforts to prevent misuse and promote responsible innovation. Prior to joining NSCEB, Sam was a Senior Research Fellow at Harvard University, jointly with the Kennedy School of Government's Program on Science, Technology & Society, and the School of Engineering and Applied Sciences. He has spent the past twenty years studying and building experimental governance capacity in bioengineering and several other areas of emerging technology, and holds a D.Phil. from Oxford University.



Carl Cowan, MS, NRP, CCP-C

Director, Emergency Management, Harvard Medical School

Carl Cowan is the Director of Emergency Management at the Harvard Medical School and possesses over 20 years of emergency services and crisis support experience. He joined HMS in August 2019 and is responsible for providing strategic leadership to the Business Continuity, Emergency Management, Environmental Health and Safety Compliance, and Enterprise Risk Management functions. Carl is an Associate Emergency Manager with the International Association of Emergency Managers, holds a Master of Science in Healthcare Emergency Management from Boston University, and is pursuing a PhD in Global Governance and Human Security from the University of Massachusetts – Boston. His particular areas of research interest include austere medicine, disaster ethics, emergency communications, and community resilience.

ABOUT OUR SPEAKERS



Deborah Barbeau, MD, PhD, MSPH

Medical Director, Occupational & Environmental Health Network
Instructor, Environmental Health, Harvard T.H. Chan School of Public Health

Dr. Barbeau joined Occupational & Environmental Health Network (OEHN) in 2016 following completion of a residency in Occupational and Environmental Medicine at the Harvard School of Public Health. Prior to pursuing Occupational Health training, Dr. Barbeau practiced Infectious Diseases for over 10 years. She is Board Certified in Internal Medicine, Infectious Diseases, and Occupational and Environmental Medicine. She is also an Instructor in Environmental Health at the Harvard T.H. Chan School of Public Health. As Medical Director, Dr. Barbeau combines her extensive Infectious Disease background with Occupational Medicine, benefitting clients including academic hospital employee health departments, community occupational health clinics, university research occupational health programs, and biotechnology and biopharma companies.



David Hill, MEM, CIH

Director of Safety; Biosafety Officer, Wadsworth Center

David is the Director of Safety and Biosafety Officer for the Wadsworth Center where he is responsible for the development and implementation of environmental health and safety programs. David is also the Responsible Official (RO) for the Wadsworth Center's select agent program. Prior to joining the Wadsworth Center in 2004, David worked for eight years in the pharmaceutical industry as an industrial hygienist at Schering-Plough Corporation, most recently as Industrial Hygiene Manager for U.S. Operations and Biosafety Officer. David received his B.S. in Biology from Union College in 1994 and Masters of Environmental Management degree in Biohazard Science from Duke University's Nicholas School of the Environment in 1996. He is board certified in the comprehensive practice of industrial hygiene (CIH).



Randy Albrecht, PhD, RBP

Senior Director, Biological Safety Program, Icahn School of Medicine at Mount Sinai

Randy A. Albrecht, PhD, RBP (ABSA International), is the Senior Director of the Biological Safety Program at the Mount Sinai Hospital System in New York City. He also serves as the Responsible Official for the Select Agents and Toxins Program and as the Director of the BSL-3 Biocontainment CoRE for Basic Sciences. He is involved in the institutional emergency management program and serves as a Section Chief for Basic Sciences on the incident management team. His academic research focuses on in vitro and in vivo investigations of host-pathogen interactions and pathogenesis of viral disease, with emphasis on studying influenza viruses, coronaviruses, alphaviruses, and picornaviruses.



Joshua Turse, PhD, CBSP

Biosafety Officer, Cornell University

Dr. Joshua E. Turse is the Biosafety Officer at Cornell University. He manages a broad biorisk management program involving biological materials, including select agents. His team provides guidance and training on biosafety, bloodborne pathogens, select agents and toxins to faculty, researchers, clinicians, and students. Dr. Turse became interested in biosafety as a graduate student at Texas A&M University, where his research required the use of BSL-3 containment and was impacted by a new set of rules – the USA PATRIOT Act and Select Agent Rules. During his graduate studies, postdoctoral training, and as a Research Associate, he published several papers on bacterial pathogens, proteomics, and immunity. Today, he focuses his publications and presentations on subjects with an impact on biorisk management. Biosafety is a dynamic and evolving field that requires constant learning and adaptation to new challenges and opportunities, which requires education and communication for multiple partners. He believes in a commonsense application of biosafety practices and procedures to support meaningful research with biological agents.

ABOUT OUR SPEAKERS



Francine Rogers, MS, MBA, CBSP, RBP, ALM

Director, Laboratory Safety, Tufts University

Francine Rogers is currently employed as the Director of Laboratory Safety at Tufts University. This position oversees research and laboratory safety programs across the Boston, Medford/Somerville and Grafton campuses. She has over twenty-five years of experience starting in bench research before shifting to teaching and occupational safety with progressively increasing managerial responsibilities at academic and medical institutions and consulting in biopharma environments. Francine holds three Masters' degrees focusing on Microbiology and Immunology, Environmental Management and Business Administration. She is an active member with ABSA International and maintains credentials as a Certified Biological Safety Professional and a Registered Biosafety Professional with ABSA International as well as the Specialist Microbiologist designation from the National Registry of Certified Microbiologists. She is also Secretary for the New England Affiliated Chapter of AHMP, NEACHMM.



Karen Byers, MS, RBP, CBSP

Director, Biosafety, Dana Farber Cancer Institute

Karen Byers became the Biosafety Officer and Manager of the Center for Aids Research Core at Dana Farber Cancer Institute in 1989. Her previous experience included benchwork in Harvard Medical School research laboratories, and an appointment to the Harvard Committee on Microbiological Safety. Karen is a co-editor of *Applied Biosafety*, the Journal of the American Biological Safety Association International (ABSA), and a Past-President of ABSA and NEBSA. She also co-edited *Biological Safety, Principles and Practices*, 5th edition, ASM Press. Currently, she serves on the Boston Biosafety Committee and the Massachusetts Board of Pharmacy Advisory Committee on Sterile Compounding. Karen has had the pleasure of working with ABSA and NEBSA colleagues, and sharing with colleagues at meetings in India, China, Mexico, Ghana, Taiwan and South Korea. In 2021, she received the ABSA International Diane Fleming Leadership Award in recognition of exceptional leadership through service to ABSA and the profession. In 2013, she was honored to receive the Rowlee Employee of the Year Award for leadership, outstanding work habits, and commitment to the high standards of the Dana Farber.



Benjamin Fontes, MPH, CBSP

Senior Associate Director; Biosafety Officer, Yale University

Ben has previously worked in the Radiation Protection and Biological Safety Departments in the Environmental Health and Safety Office at Harvard University, serving as Health Physics Technologist, Assistant Biosafety Officer, and Associate Biosafety Officer. At Harvard, he assisted with the implementation of the Biosafety program at both the University and at Harvard-affiliated hospitals. He began work at Yale in 1995, where he is currently responsible for management of the campus Biosafety, Safety Advisor, and Radiation Safety programs. Ben has an undergraduate degree in Biology from Wesleyan University (1986) and a MPH in Industrial Hygiene from the University of Michigan (1995). He is a Certified Biological Safety Professional and an active member of the American Biological Safety Association (ABSA), where he has served as the 2010 President of the association. He also previously served as an ABSA Councilor (2002-2005) and Chair of the ABSA Training and Education Committee (1999-2002).



Maren Schniederberend, PhD, RBP

Biosafety Supervisor; Co-Manager of the Safety Advisor Program, Yale University

Maren Schniederberend supervises the biosafety program at Yale University. Specifically, she manages the human pathogens compliance program, recombinant/synthetic nucleic acid compliance program and other biosafety programs. She supports the University's research community in the safe conduct of basic, translational, and clinical research. Her biosafety training programs emphasize hands-on training and provide safer alternatives to researchers for continuous program improvement. Maren has obtained MS and PhD in Microbiology from University of Osnabrueck, Germany. She is a trained infectious disease microbiologist and conducted research for 7 years studying the pathogenesis of *Pseudomonas aeruginosa*. She made the transition from research to biological safety at Yale in 2017 when she became part of the EHS team. Maren is a member of the American Biological Safety Association, International (ABSA) for several years and became a Registered Biosafety Professional (RBP) in 2023.

ABOUT OUR SPEAKERS



Julia Kontos, MS, RBP

Assistant Biosafety Officer, Yale University

Julia Kontos is a biosafety professional with over five years of experience implementing forensic, clinical, and research biological safety programs ranging from BSL-1 through BSL-4. She joined Yale University in December 2023 as the Assistant Biosafety Officer. Previously, Julia served as the Biosafety Specialist at the National Biodefense Analysis and Countermeasures Center (NBACC), where she developed and enacted processes to support the safe conduct of research at BSL-2, BSL-3, and BSL-4. During her time at the NBACC, she was responsible for managing the BSL-4 suit program, served as a BSL-3 trainer and was an emergency manager. Her areas of expertise include designing and executing hands-on specialized training for high and maximum containment environments. Julia graduated *cum laude* from Loyola University Maryland with a Bachelor of Science in Chemistry and received a Master of Science in Biotechnology with a concentration in Biodefense from Johns Hopkins University. She is an active member of the American Biological Safety Association and became a Registered Biosafety Professional (RBP) in 2022.



Samuel Telford, ScD

Professor, Department of Infectious Disease and Global Health, Tufts University
Director, New England Regional Biosafety Laboratory

Dr. Telford is an epidemiologist focusing on vector-borne infections, mainly those transmitted by ticks. His 35 year career has contributed to the development and approval of the first human Lyme disease vaccine, incriminated new agents of tick borne disease; and described the ecology of these infections. Dr. Telford's laboratory is currently funded by NIH grants on the biology of Powassan encephalitis and on the ecology and prevention of Lyme disease. He advises local, state, and national organizations on public health interventions against tick and mosquito-borne infection.



Terry Kwan, BA, MSeD

Non-Institutional Biosafety Committee Member, Harvard Medical School

Terry Kwan holds a BA from Binghamton University and an MSeD from Hofstra University. She taught pre-college science in Massachusetts and New York and supervised and trained pre K-12 teachers, and undergraduate student teachers. She also developed and reviewed science curricula and co-wrote several safety guides for science teachers published by the National Science Teachers Association. Terry following her tenure as a Supervisor with the Brookline, MA Public Schools, where she was elected to six terms (18 years) on the Brookline School Committee, including two years as the BSC chairperson. She worked for Houghton Mifflin in the development of linguistic software and currently serves as a board member of the Massachusetts School Building Authority (an entity that approves all state funds awarded for pre-college public school construction and renovation) as an appointee of the State Treasurer. Additionally, Terry serves as a community representative on several Institutional Biosafety Committees for institutions affiliated with the Harvard Medical School.



David Gillum, MS, RBP

Associate Vice President, Compliance and Research Administration, University of Nevada, Reno

David Gillum is the Associate Vice President of Compliance and Research Administration at the University of Nevada, Reno, with over 30 years of experience leading diverse teams in higher education and professional associations. An internationally recognized expert in safety, security, and compliance, David oversees campus compliance and supports a thriving research enterprise, emphasizing a robust safety culture. He provides leadership to various university teams, including Animal Resources, Environmental Health & Safety, Research Integrity and Security, and Sponsored Projects. David's academic interests include biotechnology governance, genome editing, and public engagement in technological futures. He has authored numerous research articles published in prestigious journals such as *Science*, *Issues in Science and Technology* and *The Bulletin of Atomic Scientists*. David's commitment to excellence and community engagement has been recognized through awards like the Federal Bureau of Investigation Directors Community Leadership Award in Washington, D.C., and his public service as presidency of ABSA International in 2020.