



FESTSCHRIFT  
SYMPOSIUM  
HONORING THE CAREER OF  
DONALD S. BURKE





## PROGRAM

**8:30 a.m. Arrival and Continental Breakfast**  
Pitt Public Health, 130 DeSoto Street, Pittsburgh, Pa.

**9:00 a.m. Welcome**  
Public Health Auditorium (G23)

**Ann E. Cudd**, provost and senior vice chancellor

**Rob A. Rutenbar**, senior vice chancellor for research

**Arthur S. Levine**, senior vice chancellor for the health sciences,  
John and Gertrude Petersen Dean of the School of Medicine

**9:15-10:15 Speakers**

**Nathan Wolfe**, founder and chair, Metabiota

**Jeanine Buchanich**, Department of Biostatistics,  
Pitt Public Health

**10:30-11:45 Speakers**

**Derek Cummings**, Department of Biology and Emerging  
Pathogens Institute, University of Florida

**Nelson Michael**, Walter Reed Army Institute of Research

**A luncheon in honor of Donald S. Burke will follow  
at the University Club (pre-registration required).**

## HONORING THE CAREER OF DONALD S. BURKE



**Donald S. Burke** served as dean of the University of Pittsburgh Graduate School of Public Health from 2006 to 2019, the school's longest serving dean. He also served as associate vice chancellor for global health at the University of Pittsburgh. He is the first occupant of the Jonas Salk Chair in Population Health. A native of Cleveland, Ohio, Burke received his BA from Western

Reserve University and his MD from Harvard Medical School. He was an intern and resident in medicine at Boston City and Massachusetts General hospitals and trained as a research fellow in infectious diseases at the Walter Reed Army Medical Center. He has studied prevention and control of infectious diseases of global concern, including HIV/AIDS, influenza, Japanese encephalitis, dengue, and emerging infectious diseases.

He lived six years in Thailand, worked extensively in Cameroon, and conducted collaborative vaccine and epidemiology studies in India, China, South Africa, and other countries. He served 23 years on active duty in the U.S. Army researching the prevention of diseases of military importance, and nine years on faculty at the Johns Hopkins Bloomberg School of Public Health.

Burke joined the University of Pittsburgh in 2006 where, as dean of Pitt Public Health, he founded the Pitt Public Health Dynamics Laboratory, an academic team that develops computational models and simulations of epidemic infectious diseases and other dynamic public health problems and uses these simulations to evaluate prevention and control strategies. He now leads a school-wide initiative aimed at controlling the opioid epidemic. He has been a member of the Allegheny County Health Department since 2008. Burke is a fellow of the American Association for the Advancement of Science, a fellow of the Infectious Diseases Society of America, a past-president of the American Society for Tropical Diseases and Hygiene, and an elected member of the National Academy of Medicine (U.S.A).

Burke urges the University and local community to utilize the power of the search for a new dean and other current vacancies: "This is a time of transition — of the health department, myself, Dr. Levine — this presents an opportunity for the community and region," Burke said in a recent *Pittsburgh Post Gazette* article. "What do we really want as our priorities in health over the next decade or so?" Decisions made in the next year, including the choice of leadership, could have a significant impact, he added.

## SPEAKERS



**Nathan Wolfe** is the founder and chair of Metabiota. Wolfe received his doctorate in immunology and infectious diseases from Harvard in 1998. He was awarded a Fulbright fellowship and the NIH Director's Pioneer Award and was a World Economic Forum Young Global Leader and National Geographic Emerging Explorer. Wolfe has published over 100 scientific publications, and his work has been published in or covered by *Nature*, *Science*, *The New York Times*, *The Economist*, NPR, *The New Yorker*, the *Wall Street Journal*, and *Forbes*, among others. His critically acclaimed book, *The Viral Storm*, has been published in six languages and was shortlisted in 2012 for the Royal Society's Winton Prize. In 2011 he was named as one of the hundred most influential people in the world by *Time* magazine; *Rolling Stone* named him one of the "100 Agents of Change" in 2009; and *Popular Science* recognized him as one of their "Brilliant 10" in 2006.

Metabiota is a global pioneer in infectious disease risk solutions, striving to make the world more resilient to epidemics. The platform shows that exposure to epidemic risk can be quantified and objectively analyzed by calculating the frequency, severity, and expense of infectious disease outbreaks and generating high resolution, demographic, geographic, and epidemic results for a broad range of use cases to ensure against loss.

Metabiota delivers actionable, data-driven insights that help mitigate risk. Their proprietary, historical, global data set is curated, cleansed, and continually updated covering 150 pathogens, 48 million cases, and 6 million deaths from more than 230 locations and 240 data sources, providing a condensed, refined view of the data with insights from multiple sources. Its disease model library is the largest in the insurtech industry.



**Jeanine Buchanich** is a research associate professor of biostatistics at the University of Pittsburgh Graduate School of Public Health. She also serves as deputy director of the Center for Occupational Biostatistics and Epidemiology, director of the Biostatistics Consulting Laboratory, and an affiliated faculty member for the Public Health Dynamics Laboratory.

Her primary research interests are in the conduct and analysis of occupational and environmental epidemiology studies, and dynamic disease modeling with a focus on mortality disparities. She has worked on occupational studies of

workers exposed to chloroprene, formaldehyde, acrylamide, copper smelting, coal mining, and jet engine and pharmaceutical manufacturing. Buchanich has spent several years analyzing patterns in overdose deaths and ways in which to reduce the effects of this deadly epidemic. She is also involved in occupational and environmental epidemiology, vital status tracing systems, and dynamic modeling. As part of an initiative to make a Pitt Public Health-held mortality repository more accessible to public health professionals and other stakeholders, she has investigated mortality trends and disparities in the U.S., Pa., and local county area.

A native of Pittsburgh, Buchanich received her MPH and PhD in epidemiology from Pitt Public Health, her MEd in school counseling from the Pitt's School of Education, and her BS in psychology, also from Pitt. She has served as principal investigator on eight studies, mentored over 100 students, and has more than 75 peer-reviewed publications.



**Derek Cummings** is a professor of biology and emerging pathogens at the University of Florida. Prior to his arrival at the University of Florida, he worked for the school of public health at Johns Hopkins University, where he was an associate professor in the department of epidemiology.

Cummings' research interests include the speed of transmission, patterns of transmission, and characterizing the natural history of a pathogen with a focus on identifying the factors that influence the spread of infectious diseases in order to develop strategies to control and curb their proliferation. He works with outbreaks and emerging pathogens, including MERS, Ebola, novel influenza, respiratory syncytial virus, and dengue. He's worked in China, Thailand, Liberia, Senegal, Saudi Arabia, and Pittsburgh.

Cummings received his PhD in 2004 from Johns Hopkins University's Whiting School of Engineering in geography and environmental engineering, an MHS in 2004 from Johns Hopkins University's Bloomberg School of Public Health in international health, and an MS in 2001 from Hopkins' Whiting School of Engineering in geography and environmental engineering. He received his ScB from Brown University in 1996.



**Nelson L. Michael** is director of the Center for Infectious Diseases Research, Walter Reed Army Institute of Research (WRAIR). He served for 29 years in the U.S. Army at Walter Reed, including 12 years as director of the U.S. military's HIV research program (MHRP) and eight months as the WRAIR deputy commander, retiring at the rank of colonel in the medical corps. He guided the MHRP,

an international HIV vaccine research program, through the completion of the RV144 HIV prime-boost vaccine study, which provided the world's first demonstration that a preventive HIV vaccine was possible.

Michael's research interests include HIV molecular pathogenesis and host genetics, HIV clinical research, and HIV/Ebola/MERS Co-V and ZIKV vaccine development. He is a professor of medicine for the Uniformed Services University, and is a diplomat for the American Board of Internal Medicine. He serves as a peer reviewer of many scientific journals and is author/coauthor of more than 340 scientific publications, and eight textbooks. Honors include the Army Commendation Medal, Joint Service Commendation Medal, Army Achievement Medal, Army Meritorious Service Medal, Defense Meritorious Service Medal, Legion of Merit, and Hero of Military Medicine Award. He served on President Obama's Presidential Commission for the Study of Bioethical Issues and has sat on many other working groups and advisory committees.

Michael graduated summa cum laude from University of California, Los Angeles, in 1979 with a degree in biology; and from Stanford University with MD and PhD degrees in 1986. He trained in internal medicine at Harvard Medical School, Massachusetts General Hospital, from 1986 to 1989.

University of Pittsburgh

**Graduate School of Public Health**