

Biographical Sketch

NAME DANIELLE VIRGINIA CLARK		POSITION TITLE DIRECTOR	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training).			
INSTITUTION AND LOCATION	DEGREE (IF APPLICABLE)	YEAR(S)	FIELD OF STUDY
Worcester Polytechnic Institute, Worcester, MA Emory University, Atlanta, GA Johns Hopkins School of Public Health	BS MPH PhD	05/2002 05/2004 05/2014	Biotechnology and International Studies International Health Epidemiology
<p>A. Personal Statement</p> <p>I have worked for over a decade to enhance public health capabilities and answer pressing questions aimed at improving clinical outcomes for patients in low resource settings. My experience working in the former Soviet Republics, Africa, and Southeast Asia has given me an in-depth understanding of the challenges of operating in austere environments, as well as the avenues that make improvement possible.</p> <p>From 2004 – 2010, I led over 10 clinical research protocols for Walter Reed Army Institute of Research in Azerbaijan, Georgia, Ukraine, and Uzbekistan primarily aiming to define the incidence and prevalence of select zoonotic infections. I established scientific collaborations among various DoD research institutes and international organizations. As part of my responsibilities, I trained over 100 epidemiologists and clinicians on study design, database design, and data analysis. I resided in Azerbaijan for ~2 years to supervise the ongoing studies.</p> <p>In 2010, I joined the Integrated Research Facility to develop a research program investigating sepsis in low resource settings. This effort evolved into the Austere environments Consortium for Enhanced Sepsis Outcomes (ACESO). I currently serve as Director for the ACESO consortium. In this capacity I set the research priorities, establish strategic partnerships, and lead overall program implementation. My research interest is in development of host-based diagnostic and prognostic assays that could be used at the point-of-care to guide clinical decision-making for patients with severe infections.</p>			

B. Positions and Honors

Employment

2004-2009	Research Lead, Biological Threat Reduction Program, Walter Reed Army Institute of Research
2009-2010	Research Manager, Integrated Research Facility, National Institute of Allergy and Infectious Disease, NIH, Frederick MD
2010-2017	Deputy Director, Austere environments Consortium for Enhanced Sepsis Outcomes, Naval Medical Research Center, Frederick MD
2017-present	Director, Austere environments Consortium for Enhanced Sepsis Outcomes, Naval Medical Research Center, Frederick MD

Honors

2010-2014	Mary B. Myers Scholar
2014	Delta Omega honor society

C. Contributions to Science

1. My career initially focused on building the capability to conduct disease surveillance in parts of the world where the public health infrastructure was weak. Through these efforts I was able to enhance and in some cases establish clinical microbiology laboratories, integrate the laboratories into the routine function of the hospital, and provide results back to the treating physicians. As a direct result of my work, we provided prevalence data to the Ministry of Health, and identified infections that were not previously known to be endemic.

Clark DV, Mammen MP Jr, Nisalak A, Puthimethee V, Endy TP. Economic Impact of Dengue Fever/Dengue Hemorrhagic Fever in Thailand at the Family and Population Levels. *American Journal of Tropical Medicine and Hygiene*, 2005 Jun;72(6):786-91.

Kuchuloria T, **Clark DV**, Hepburn MJ, Pimentel G, Imnadze P. Hantavirus infection in the Republic of Georgia. *Emerging Infectious Diseases*, 2009;15(9):1489-1491.

Chitadze N, Kuchuloria T, **Clark DV**, Ekaterine T, Chokheli M, Tsertsvadze N, Trapaidze N, Lane A, Bakanidze L, Tsanova S, Hepburn M, Imnadze P. Water-borne outbreak of oropharyngeal and glandular tularemia in Georgia: investigation and follow-up. *Infection*, 2009 Dec;37(6):514-21.

Akhvlediani T, **Clark DV**, Chubabria G, Zenaishvili O, Hepburn MJ. The changing pattern of human brucellosis clinical manifestations, epidemiology, and treatment outcomes over three decades in Georgia. *BMC Infect Dis*. 2010 Dec 9;10:346.

Clark DV, Ismayilov A, Bakhishova S, Hajiyev H, Nuriyev T, Piraliyev S, Bagirov S, Aslanova A, Qasimov M, Hepburn MJ. Under-utilization of health care services for infectious diseases syndromes in rural Azerbaijan. *BMC Health Serv Res*, 2011 Feb 11;11:32.

Kuchuloria T, Imnadze P, Chokheli M, Tsertsvadze T, Endeladze M, Mshvidobadze K, **Clark DV**,

Bautista CT, Abdel Fadeel M, Pimentel G, House B, Hepburn MJ, Wolfel S, Wolfel R, Rivard RG. Viral hemorrhagic fever cases in the country of Georgia: Acute Febrile Illness Surveillance Study results. *Am J Trop Med Hyg*, 2014 Aug;91(2):246-8.

Kuchuloria T, Imnadze P, Mamuchishvili N, Chokheli M, Tsertsvadze T, Endeladze M, Mshvidobadze K, Gatsrelia L, Makhviladze M, Kanashvili M, Mikautadze T, Nanuashvili A, Kiknavelidze K, Kokaia N, Makharadze M, **Clark DV**, Bautista CT, Farrell M, Fadeel MA, Maksoud MA, Pimentel G, House B, Hepburn MJ, Rivard RG. Hospital-Based Surveillance for Infectious Etiologies Among Patients with Acute Febrile Illness in Georgia, 2008-2011. *Am J Trop Med Hyg*. 2016 Jan;94(1):236-42.

2. I am particularly interested in understanding the long-term sequelae following severe infection. My research on survivors of Ebola virus disease (EVD) in Bundibugyo, Uganda was one of the early studies to help understand the sequelae observed in survivors of the West African EVD outbreak.

Clark DV. Long-term sequelae among Ebola virus survivors in Bundibugyo, Uganda. *American Society of Microbiology Biodefense and Emerging Diseases Research Meeting*. Washington DC, February 6-9, 2011.

Clark DV, Kibuuka H, Millard M, Wakabi S, Lukwago L, Taylor A, Eller ME, Eller LA, Michael NL, Honko AN, Olinger GG, Schoepp RJ, Hepburn MJ, Hensley LE, Robb ML. Long-term sequelae after Ebola virus disease in Bundibugyo, Uganda: a retrospective cohort study. *Lancet Infectious Diseases*; published online 21 Apr 2015.

Clark DV. Long-term sequelae among Ebola virus survivors in Bundibugyo, Uganda. *American Society of Microbiology Biodefense and Emerging Diseases Research Meeting*. Washington DC, February 6-9, 2011.

Clark DV, Jahrling PB, Lawler JV. Clinical management of filovirus-infected patients. *Viruses*, 2012; 4(9):1668-86.

3. I currently lead the ACESO efforts to develop diagnostic and prognostic assays to improve survival for patients with sepsis. My research in this area focuses on applying a systems biology approach to identifying host-based biomarkers capable of predicting clinical outcome and differentiating bacterial from viral infection.

Clark, DV. Identifying common pathways of sepsis in Cambodia using a systems approach. *Systems Biology of Infection Symposium, 2nd Edition*. Monte Verita, Switzerland, September 6-10, 2015.

Duplessis C, Gregory M, Frey K, Bell MG, Truong L, Schully KL, Lawler JV, Langley RJ, Kingsmore SF, Woods CW, Tsalik EL, **Clark DV**. Evaluating the discriminating capacity of apoptotic biomarkers in sepsis. *Manuscript in review at SHOCK*.

Clark DV, Banura P, Bandeen-Roche K, Kain K, Moss, WJ, Jacob ST. Plasma endothelial markers in Ugandan patients with sepsis can be grouped into distinct processes and patient profiles that predict mortality. *Manuscript in preparation*.

4. The ability to conduct clinical research in an outbreak setting is an unmet need. I am currently leading a program to build a clinical research capability for therapeutic and diagnostic trials in outbreak settings.

Ortiz JF, Rudd KE, **Clark DV**, Jacob ST, West TE. Clinical research during a public health emergency: a systematic review of severe pandemic influenza management. Crit Care Med. 2013; 41(5):1345-52.

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing Research Support

Defense Health Program, Combating Antibiotic Resistant Bacteria (CARB): “Mitigate the Global Impact of Sepsis Through ACESO”. Clark(PI)

The goal of this study is to improve survival for patients with sepsis through improved patient management and understanding the pathophysiology of infection, particularly as it relates to antibiotic resistance.

Defense Health Program: “West Africa Bio-Surveillance - Austere Environment Consortium for Enhanced Sepsis Outcomes.” Clark(PI)

The goal of this program is to understand the infectious etiologies of sepsis in West Africa and identify biomarkers capable of predicting clinical outcome and differentiating bacterial from viral infection.

Medical Countermeasure Systems, Joint Program Executive Office of the Chem-Bio Defense Program “Joint Mobile Emerging Disease Intervention Clinical Capability”. Clark (PI)

This program aims to build the capability for conducting clinical trials for filovirus therapeutics in outbreak settings.

Completed Research Support

Joint Science and Technology Office, Chemical and Biological Defense Program: “Austere Environment Consortium for Enhanced Sepsis Outcomes”. Clark(PI)

This award established the Austere environment Consortium for Enhanced Sepsis Outcomes and built the research capability for an international research consortium focused on improving survival for patients with sepsis.