

**PL 2**

**OVERCOMING CHALLENGES AND HARNESSING OPPORTUNITIES FOR  
HEALTH AT THE BIODIVERSITY-CLIMATE NEXUS**

## | BACKGROUND

Unabated biodiversity loss, climate change and pollution are the leading global health challenges of our time. Our dysfunctional global food system is at the heart of this “triple planetary crisis” and holistic multisectoral approaches to health, such as One Health and planetary health, are at the heart of solutions to bridge the persistent and growing health challenges they pose. At the same time, ecosystem-based approaches, or nature-based solutions, that embed health co-benefits offer essential opportunities to meet the adaptation and mitigation commitments set out in the Paris Agreement and post-2020 Global Biodiversity Framework, when combined with food system transformation, technological innovation, a green energy transition and the necessary socio-political and economic conditions to achieve equity and social justice.

## | OBJECTIVES

The overall aim of sub-theme 2 will be to take in-depth look at the common drivers of biodiversity loss, climate change and pollution, and the impact of these environmental determinants, coupled with social, political and economic determinants on health outcomes. It will focus both on underlying systemic challenges at this nexus and key opportunities to overcome them in the path toward sustainable transformational change. It will further seek to catalyze health leadership, from local to global levels, by drawing on existing evidence and knowledge through more coordinated, ambitious and inclusive multi-sectoral approaches to inform evidence-based policies and actions. It will also seek to identify key opportunities to maximize health co-benefits and minimize trade-offs at the biodiversity-climate nexus, and to build both social and ecological resilience, and resilient health systems and societies, in the face of global environmental change.



Moderator

## Dennis Carroll

*Chair, Leadership Board, Global Virome Project*

Senior Advisor, Global Health Security, URC  
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Dr. Dennis Carroll has over 30 years of leadership experience in global health and development. Until recently he served as the Director of the U.S. Agency for International Development's (USAID) Emerging Threats Division. In this position Dr. Carroll was responsible for providing strategic and operational leadership for the Agency's programs addressing new and emerging disease threats. He provided overall strategic leadership for the Agency's response to the West Africa Ebola epidemic. He currently serves as a Senior Advisor on Global Health Security at URC, is a Distinguished Professor of Faculty of Medicine, Chulalongkorn University and a Senior Fellow, Tufts University, Center for International Law and . Dr. Carroll is a leading advocate for creating an international partnership to build the systems and capacities to detect and characterize future viral threats while they are still circulating in wildlife - enabling the world to better prepare before they spill over into us.

Dr Carroll was initially detailed to USAID from the U.S. Centers for Disease Control and Prevention as a senior public health advisor in 1991. In 1995 he was named the Agency's Senior Infectious Diseases advisor, responsible for overseeing the Agency's programs in malaria, tuberculosis, antimicrobial resistance, disease surveillance, as well as neglected and emerging infectious diseases. In this capacity Dr. Carroll was directly involved in the development and introduction of a range of new technologies for disease prevention and control, including: community-based delivery of treatment of onchocerciasis, rapid diagnostics for malaria, new treatment therapies for drug resistant malaria, intermittent therapy for pregnant women and "long-lasting" insecticide treated bednets for prevention of malaria. He was responsible for the initial design and development of the President's Malaria Initiative (PMI). Dr. Carroll officially left CDC and joined USAID in 2005 when he assumed responsibility for leading the USAID response to the spread of avian influenza. Between 2009 - 2019 he oversaw the Agency's Emerging Threats program spanning more than 30 countries across Africa and Asia.

Dr Carroll has a doctorate in biomedical research with a special focus in tropical infectious diseases from the University of Massachusetts at Amherst. He was a Research Scientist at Cold Spring Harbor Laboratory where he studied the molecular mechanics of viral infection. Dr. Carroll has received awards from both CDC and USAID, including the 2006 USAID Science and Technology Award for his work on malaria, including the design of PMI, and avian influenza, the 2008 Administrator's Management Innovation Award for his management of the Agency's Avian and Pandemic Influenza program, in 2015 USAID's Distinguished Service Award, and a 2018 Lifetime Achievement Award from the Scowcroft for International Affairs at Texas A&M University.