Dyann Wirth is the Richard Pearson Strong Professor of Infectious Diseases and Chair of the Department of Immunology and Infectious Diseases in the School of Public Health at Harvard University. Professor Wirth graduated Phi Beta Kappa from the University of Wisconsin, spent one year as a Fulbright Fellow, and then completed her doctorate in cell biology and virology at the Massachusetts Institute of Technology. She was awarded a Helen Hay Whitney Fellowship for her post-doctoral work in molecular biology at Harvard University. She joined the faculty of Harvard School of Public Health in 1982 and was promoted to full professor in 1990. Professor Wirth is current fellow and past president of the American Society of Tropical Medicine & Hygiene and Joseph Augustine LePrince Medal recipient; a past board member of the Burroughs-Wellcome Medal recipient; a past board member of the Burroughs-Wellcome Fund and Marine Biological Laboratory; a member of the National Academy of Medicine of the National Academy of Sciences; and a Fellow of the American Academy of Microbiology.

Research: Professor Wirth is an international expert in tropical disease and molecular microbiology, and she has been a major leader in the area of malaria research for more than 30 years. Her work has provided new insight into how the malaria parasite has evolved, specifically in the areas of population biology, drug resistance, and antigenicity. The Wirth laboratory blends the scientific environments of the Harvard T.H. Chan School of Public Health, the Broad Institute, and research institutions from across the globe to create a unique malaria research and training network that brings together scientists with expertise in molecular biology, genetics, genomics, population genetics, chemistry, cell biology, epidemiology, computational biology, biostatistics, and leading clinicians in infectious diseases and pathology. Using this approach, the Wirth group is working to understand the mechanisms of drug resistance in Plasmodium falciparum, the major human malaria parasite. Leveraging the genomic tools of the human genomic project, the group has applied state-of-the-art technologies and novel approaches to better understand the fundamental biology of the malaria parasite and mechanisms of drug resistance. The group’s current efforts seek to determine both the number and identity of genes expressed by the parasite in response to drug treatment and to evaluate the role of these genes for parasite survival. This work aims to understand basic molecular mechanisms in protozoan parasites with the long-term goal of discovering and applying preventive and therapeutic interventions against malaria infection.

For additional information, visit her website.