

Constance Hilliard is a Professor of Genomic History, Emerita at the University of North Texas. She received a B.A., M.A. and Ph.D. from Harvard University in History and has in recent years pioneered the field of “African Evolutionary History”. This emerging discipline resides at the intersection of environmental history and genomics, and offers previously overlooked clues as to the etiology of certain health disparities for which Americans of African-descent have unusually high susceptibilities. Her Ancestral Genomics (AG) Model identifies certain beneficial ancestral gene variants in the unique ecology of the West Africa interior, which may become maladaptive in the U.S. dietary culture, particularly as relates to calcium and sodium intake.

Her work on populations of African-descent focuses on “paradoxes” that arise in the medical literature relating to what seem to be unusual phenotypic traits. Why, for instance, do African-Americans have low rates of osteoporosis yet low calcium intake? The AGV Model tracks causative genetic variants brought to light by applying meticulous historical detail to the medical enigma at hand. For instance, Dr. Hilliard’s early-stage career as a historian translating manuscripts from Timbuktu, gave her insights into 17th century West Africa that could not be duplicated in any other field of study. The approach and methods that she now takes to link African-descent genetic populations to select U.S. health disparities, has laid the groundwork for identifying the etiology of salt-sensitive hypertension, kidney disease, Type II Diabetes and certain metastatic cancers in African-Americans that are linked to maladaptive rather than inherently oncogenic genetic variants.