

Genetics, Bioinformatics, & Systems Biology Colloquium

presents

Nancy Cox, PhD

Director of Vanderbilt Genetics Institute & Director of Division of Genetic Medicine

Vanderbilt University





12PM



ZOOM



HOW HERITABLE LAB VALUES CAUSE HEALTH DISPARITIES (AND HOW WE CAN FIX IT)

Physicians think of laboratory values as dynamic measures of disease risk and progression, but almost 75% of labs ordered on a monthly basis are significantly heritable and about 30% of labs are highly heritable (H2>0.5). About half of all heritable labs show significant differences across continental genetic ancestries in means and/or variances. Because reference ranges for most labs were established decades ago in what we would now consider to be quite small samples of white men, we have inadvertently created a whole host of institutionalized health disparities that disproportionately burden diverse populations but also reduce the utility and confuse the understanding of some laboratory values across all populations. I will provide examples to illustrate these points and outline possible solutions that I hope will generate broader discussions of ways to use genetics to improve health and increase health equity.



