Binary traits (Binomial model) Quantitative traits (Gaussian model) 0.4 -Spearman's $\rho = 0.03$ Mean platelet volume Hair color (red) Spearman's $\rho = 0.61$ (p-value: 0.64) (p-value: 2.2e-59) 0.3 Porphyrin and bilirubin metabolism 0.3 disorders (TTE) Hair color (blonde) Incremental AUC Hair color (dark brown) Genetic Celiac disease hematological \mathbb{R}^2 disorder Incremental **Iritis** 0.2 Direct billirubin Lipoprotein A Type 1 diabetes Intestinal malabsorption (TTE) Apolipoprotein B Ankylosing Other coagulation spondylitis Heel bone mineral density defects (TTE) 0.1 0.1 EBNA-1 antigen for Epstein-Barr Virus 0.0 0.0 10 100 1000 10000 Number of genetic variants 100 10 1000 10000 Number of genetic variants Lifestyle and environment Cancer Others Bone-densitometry of heel Disease outcome Anthropometry Trait category Trait category Family history Psychosocial factors **Biomarkers** Lifestyle and environment Health and medical history **Blood** assays Others