distToTSS (bins) ABC (A=scATAC, C=power law) ARC-E2G score Distance to TSS (kb) Kendall correlation scE2G (Multiome) STARE (gABC, power law) scE2G (ATAC) $\rho = -0.13$ $\rho = -0.13$ $\rho = 0.21$ $\rho = 0.03$ $\rho = -0.12$ $\rho = -0.14$ $\rho = 0.06$ $\rho = 0.07$ $\rho = -0.08$ $\rho = 0.07$ $\rho = 0.06$ 0.0 • • • CRISPRi effect size $\rho = -0.14$ $\rho = -0.12$ $\rho = 0.06$ $\rho = -0.12$ $\rho = -0$ $\rho = -0.09$ $\rho = -0.09$ $\rho = 0.13$ $\rho = 0.17$ $\rho = -0.01$ $\rho = 0.17$ [20,100) 0.25 $\rho = -0.03$ $\rho = -0.04$ $\rho = -0.01$ $\rho = -0.03$ $\rho = -0$ $\rho = -0.01$ $\rho = -0.09$ $\rho = -0.14$ $\rho = -0.02$ $\rho = -0.23$ $\rho = -0.24$ [100,2.5e+03) 0.00 -0.25-0.50 0.25 0.50 0.75 500 1000 1500 2000 -0.05 0.00 0.05 0.10 0.150.00 0.25 0.50 0.75 1.000.00 0.25 0.50 0.75 1.000.00 0.25 0.50 0.75

Predictor score