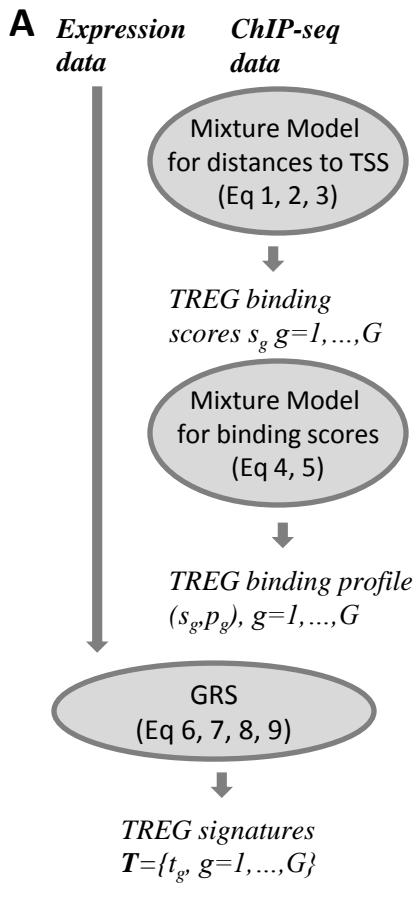


Figure 1



B

$$\text{Eq 1} f(a) = \pi f_E(a | \lambda) + (1 - \pi) f_U(a)$$

$$\text{Eq 2} W_i = \frac{\hat{\pi} f_E(a_i | \hat{\lambda})}{\hat{\pi} f_E(a_i | \hat{\lambda}) + (1 - \hat{\pi}) f_U(a_i)}$$

$$\text{Eq 3} s_g = \log\left(\sum_k h_k^g W_k^g\right)$$

C

$$\text{Eq 4} f(s) = (1 - \eta) f_E(s | \psi) + \eta f_N(s | \mu, \sigma^2)$$

$$\text{Eq 5} p_g = \frac{\hat{\eta} f_N(s_g | \hat{\mu}, \hat{\sigma}^2)}{(1 - \hat{\eta}) f_E(s_g | \hat{\psi}) + \hat{\eta} f_N(s_g | \hat{\mu}, \hat{\sigma}^2)}$$

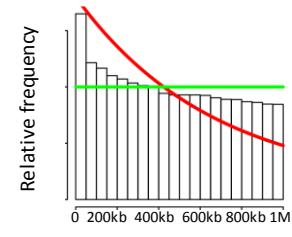
D

$$\text{Eq 6 : } E = \frac{1}{2} \left| \frac{\sum_g p_g^T \cdot s_g^D}{\sum_g p_g^T} + \frac{\sum_g p_g^D \cdot s_g^T}{\sum_g p_g^D} \right|$$

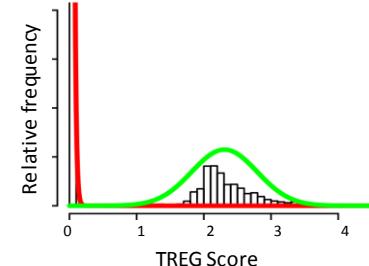
$$\text{Eq 7 : } e_g = \frac{G}{2} \left| \frac{p_g^T \cdot s_g^D}{\sum_g p_g^T} + \frac{p_g^D \cdot s_g^T}{\sum_g p_g^D} \right|$$

$$\text{Eq 8 : } t_g = -\log(p-value(e_g))$$

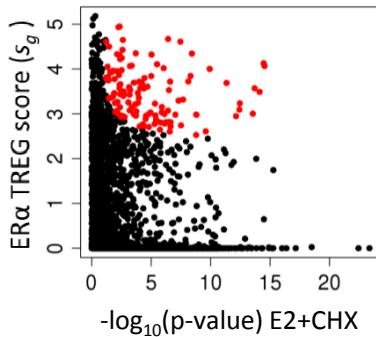
$$\text{Eq 9 : } T = \{t_g, g = 1, \dots, G\}$$



Distance to TSS



TREG Score



-log₁₀(p-value) E2+CHX

Figure 2

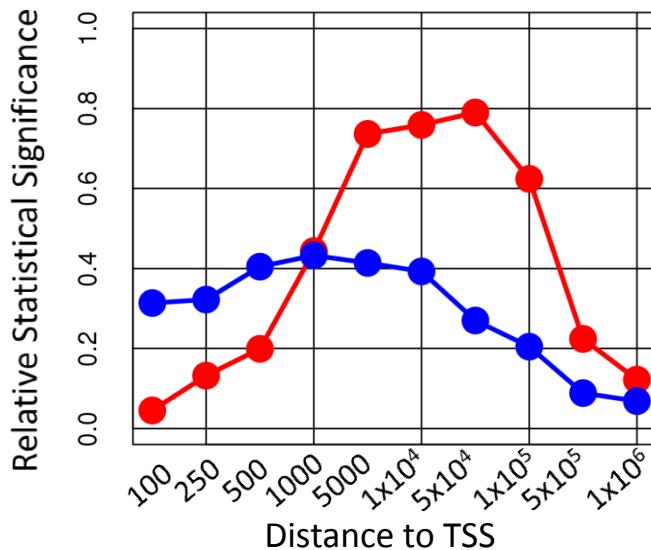


Figure 3

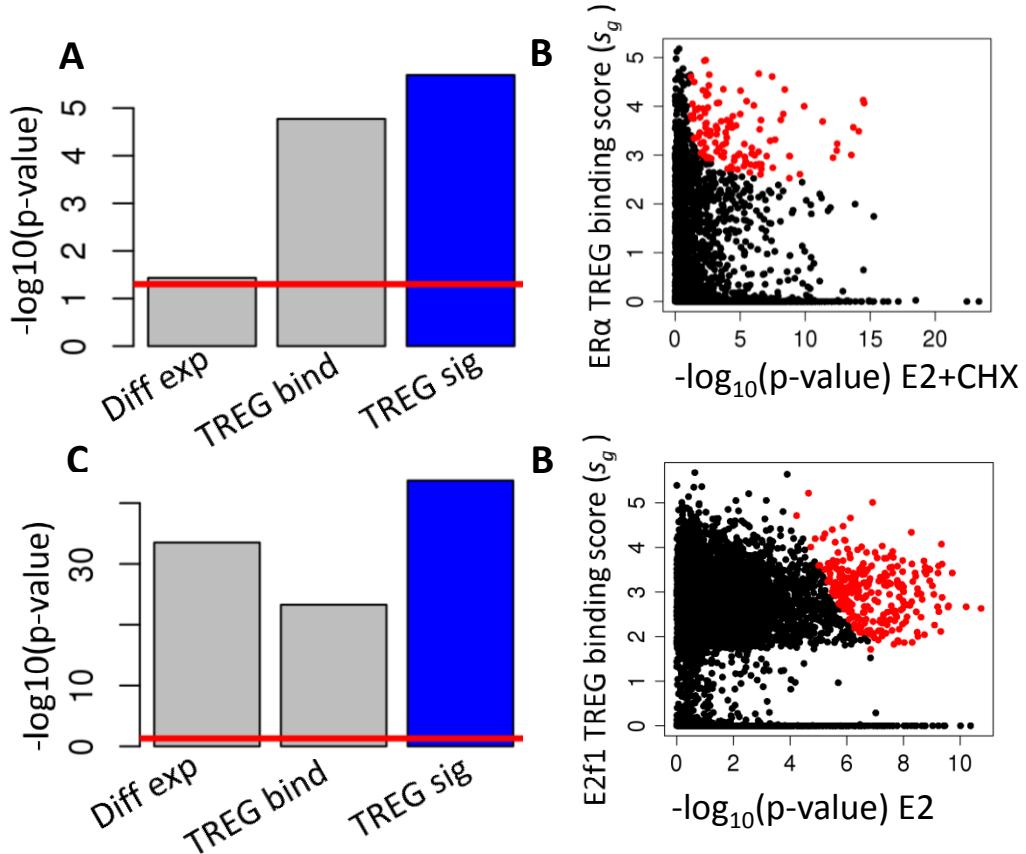


Figure 4

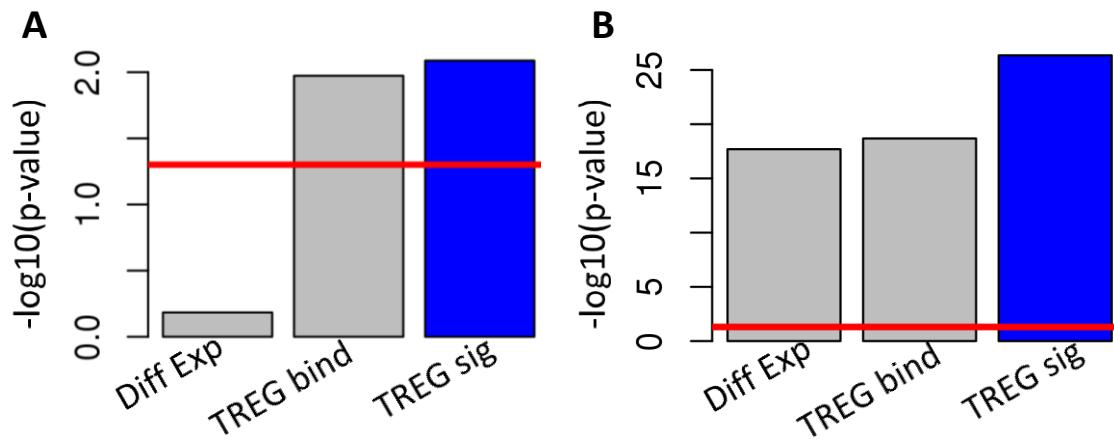


Figure 5

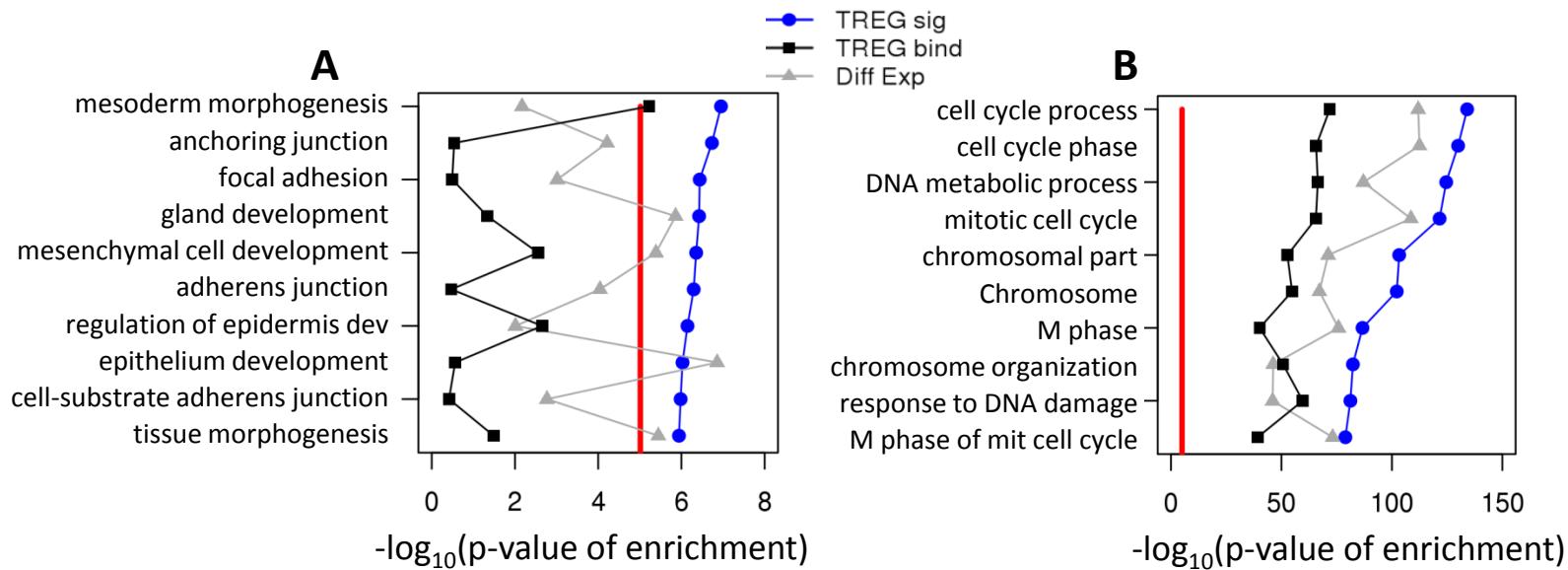


Figure 5

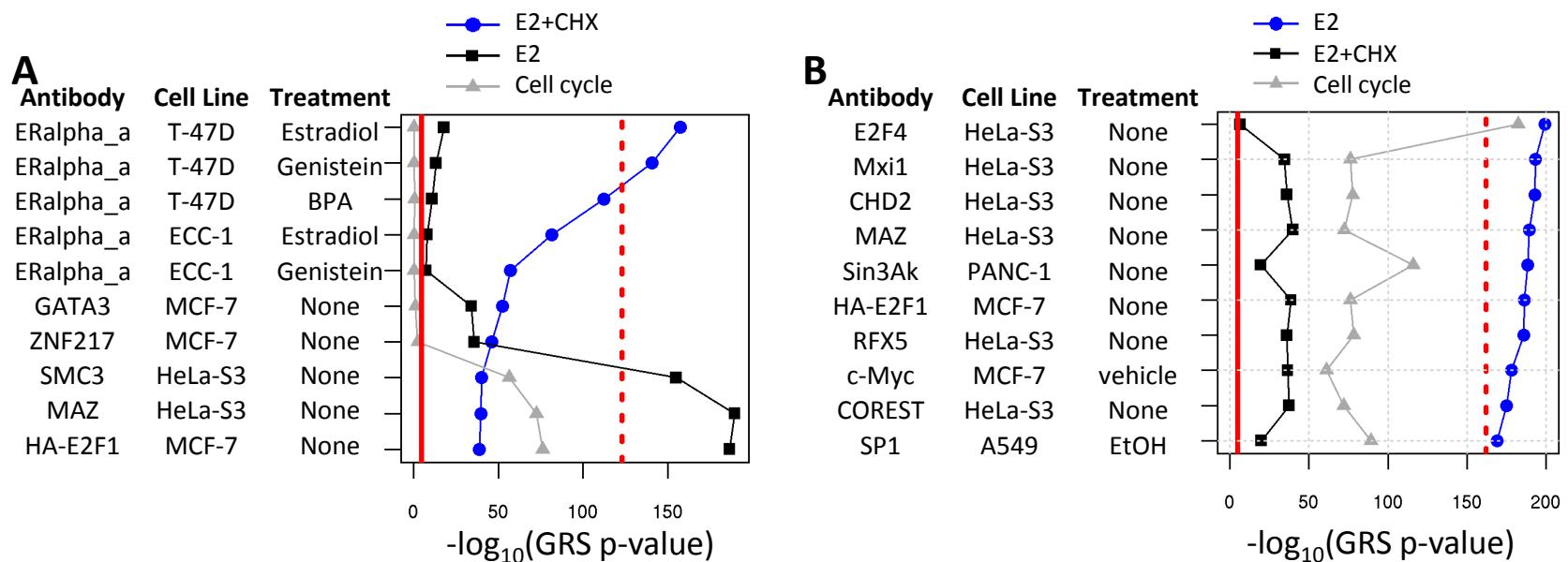


Figure 6

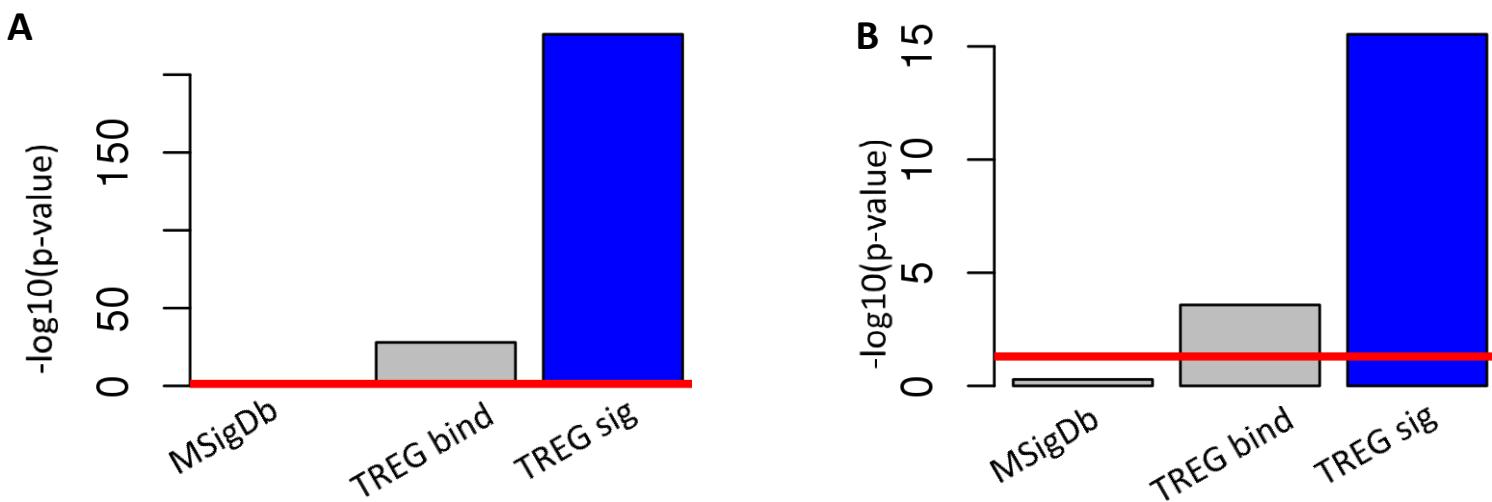
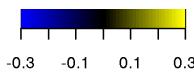
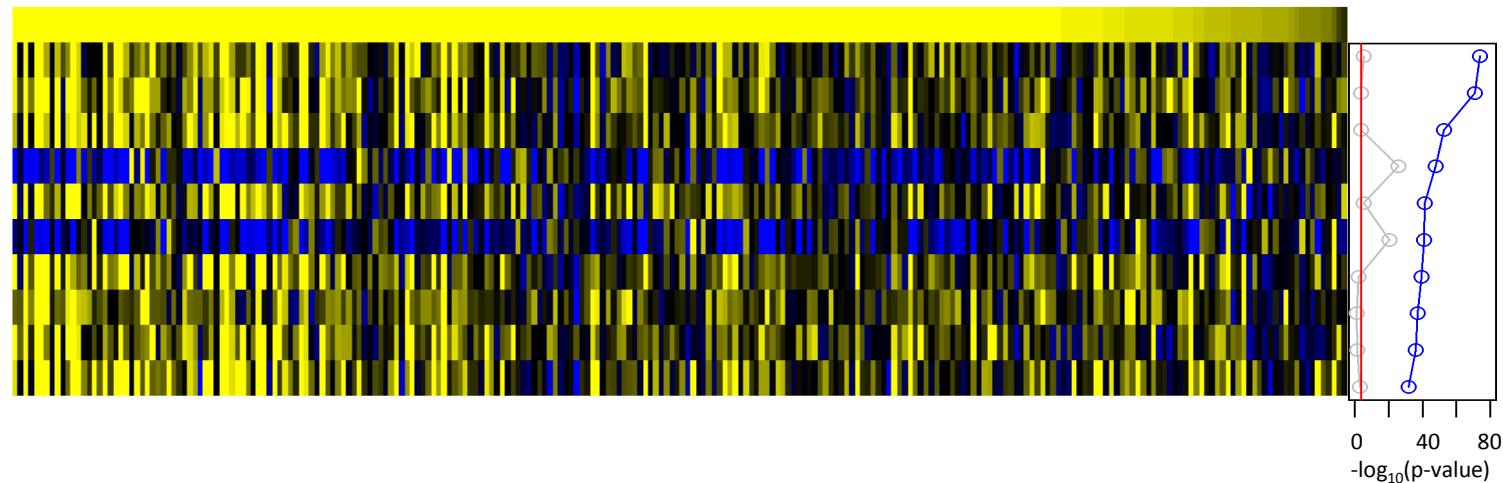


Figure 7:

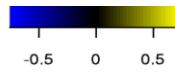
A



ER alpha signature
estropipate (9200 nM)
equilin (15000 nM)
estradiol (10 nM)
raloxifene (7800 nM)
naringenin (14600 nM)
fulvestrant (10 nM)
estradiol (100 nM)
levonorgestrel (12800 nM)
lorglumide (8400 nM)
genistein (10000 nM)



B



ER alpha signature
GDS3315: ChX vs. estradiol and ChX
GDS3283: control vs. estradiol
GDS3217: control vs. estradiol
GDS3315: control vs. estradiol and ChX
GDS1094: 17beta-estradiol vs. control
GDS1094: 17beta-estradiol vs. 4OH-tamoxifen
GDS3315: control vs. estradiol
GDS2367: tamoxifen vs. vehicle
GDS3285: estradiol 0 h vs. 3 h
GDS2770: 17beta-estradiol vs. control

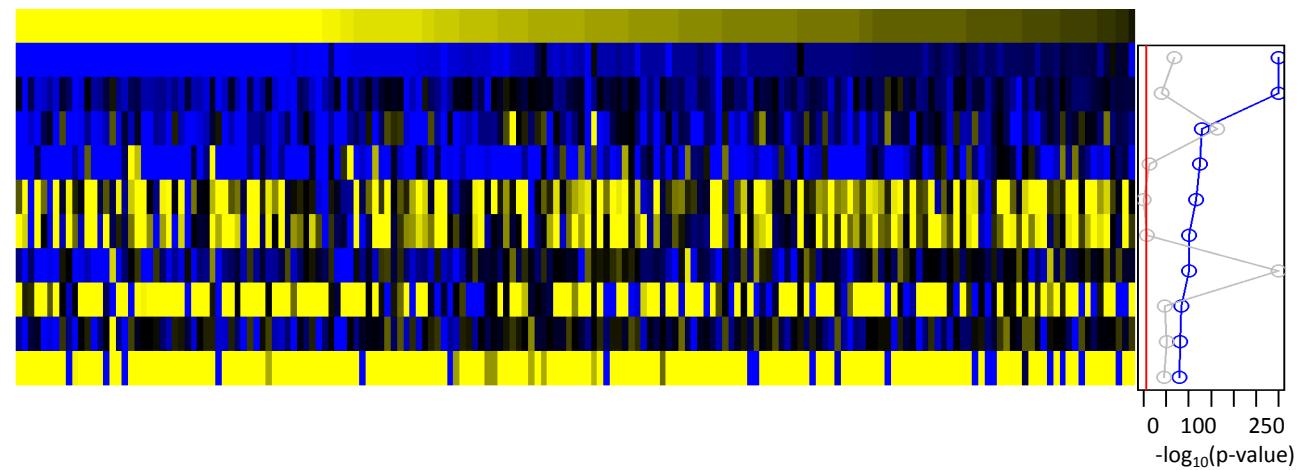
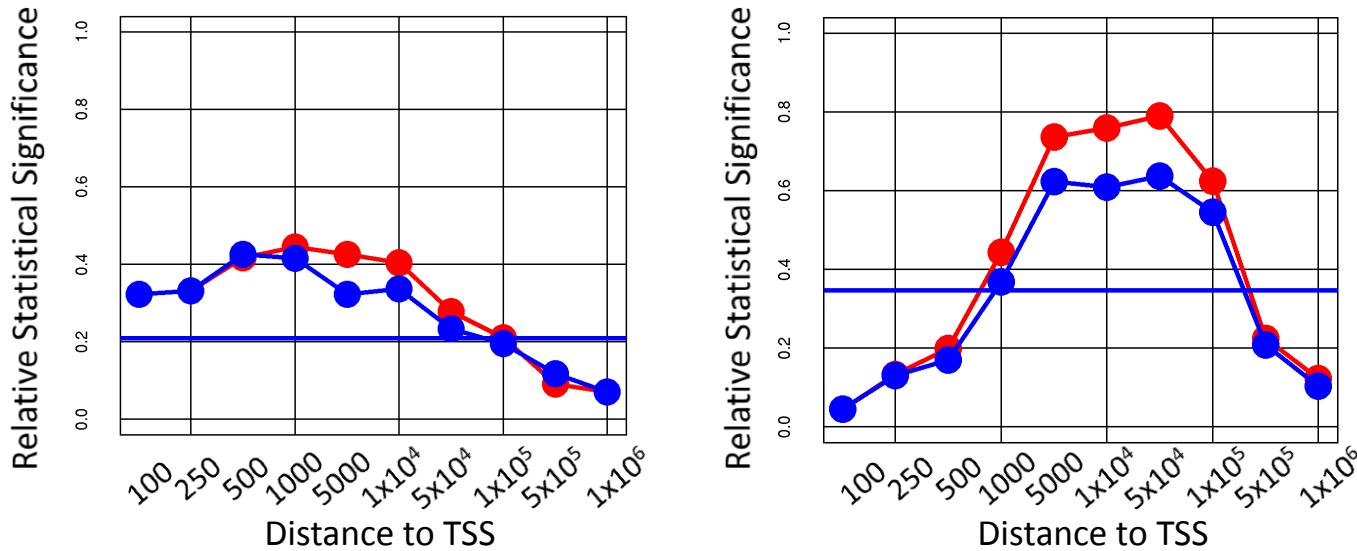
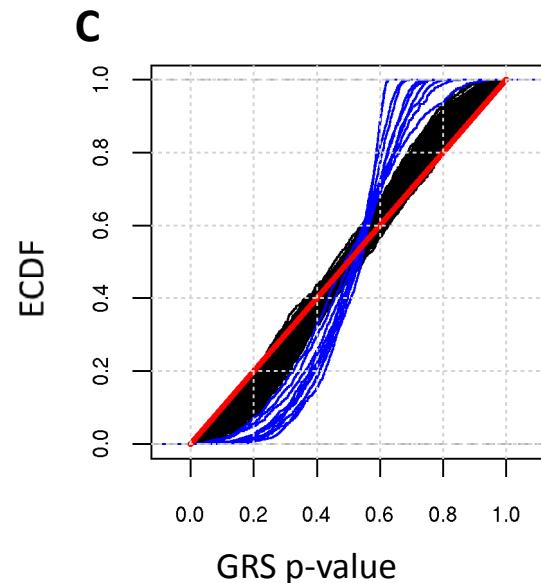
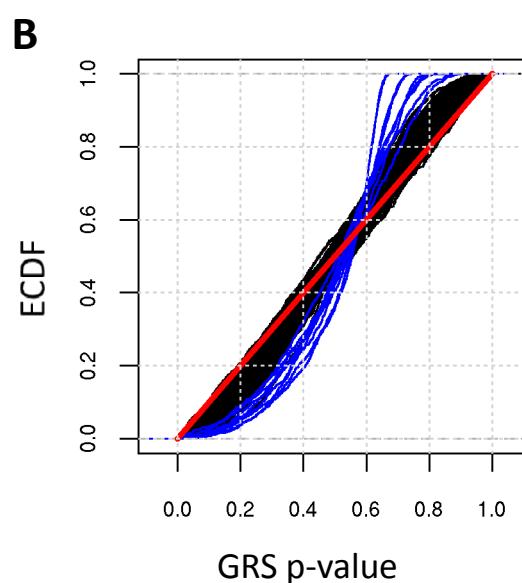
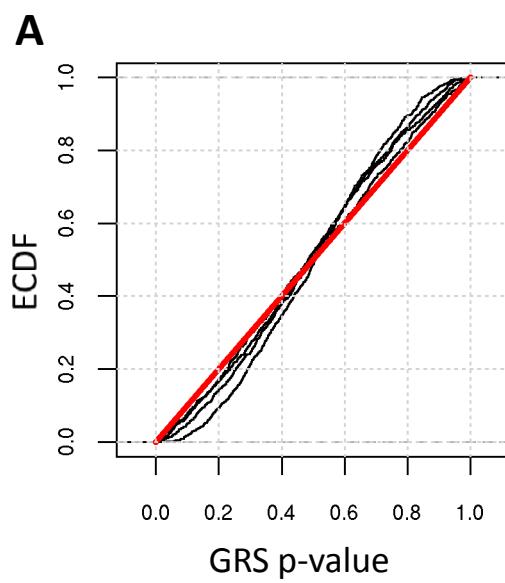


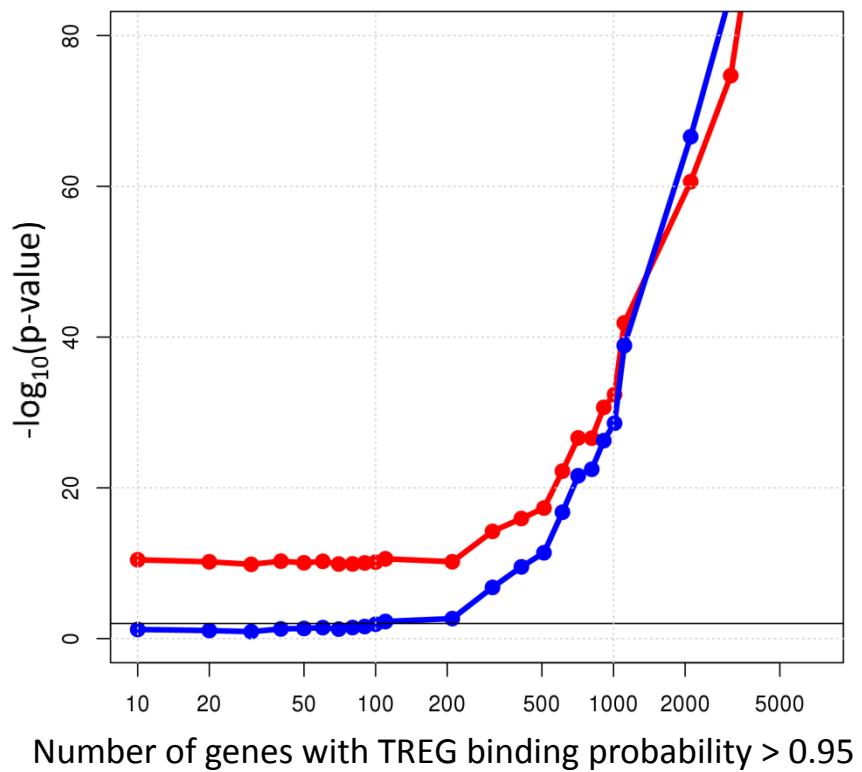
Figure S1



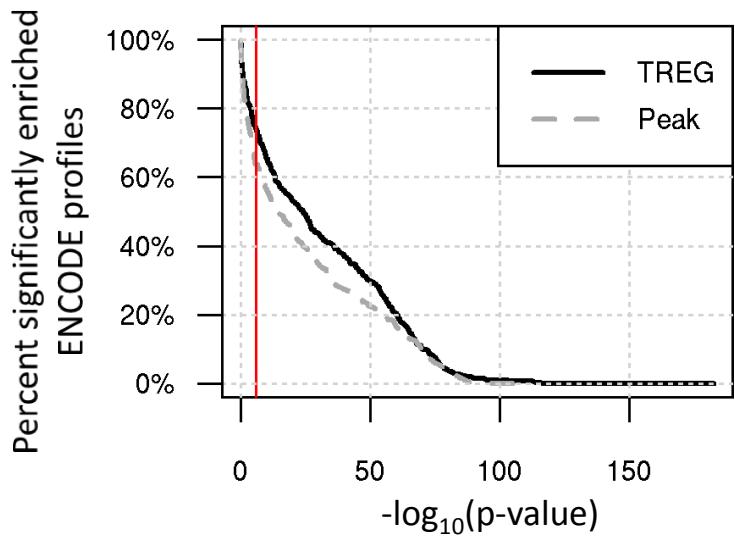
Supp Fig S2



Supp Fig S3



Supp Fig S4



Supp Fig S5

