

- Initiated a comparative analysis on the impact of different background selections for enrichment analyses: DHS all-genome, DHS cell-line, and flanking regions.
- Early observations suggest differences depending on background choice. For cell-line specific TFs (e.g., HNF4A in HepG2) and for more ubiquitous TFs (e.g., CTCF in HepG2)
- Analysis on this aspect is ongoing and will continue next week.

- DHS - all**

TF\_HNF4A\_liver  
DHS\_...HepG2  
TF\_RXRA\_liver  
ATAC\_...liver  
TF\_HNF4A\_HepG2  
ATAC\_...left lobe of liver  
ATAC\_...GM12878  
ATAC\_...left lung  
DHS\_...Huh7  
ATAC\_...H2G2885  
DHS\_...fibroblast of skin of right biceps  
DHS\_...LNCaP clone FOC  
ATAC\_...left ventricle myocardium superior  
DHS\_...right lobe of liver  
ATAC\_...left colon  
DHS\_...small intestine  
DHS\_...BM-90  
ATAC\_...thyroid gland  
TF\_FOXA3\_HepG2  
ATAC\_...DND-41

**DHS - HepG2**

DHS\_...fibroblast of skin of right biceps  
DHS\_...kidney glomerular epithelial cell  
TF\_RXRA\_liver  
DHS\_...fibroblast of skin of back  
ATAC\_...H2G2763  
ATAC\_...activated T-cell  
DHS\_...BM-90  
ATAC\_...H2G2885  
DHS\_...epithelial cell of esophagus  
ATAC\_...GM12576  
TF\_HNF4A\_liver  
TF\_SPL\_liver  
DHS\_...fibroblast of skin of abdomen  
DHS\_...GM12885  
ATAC\_...adrenal gland  
ATAC\_...GM12619  
DHS\_...heart  
ATAC\_...H2G3442  
DHS\_...osteoblast  
DHS\_...brain

**HNF4A (in HepG2)**

TF\_HNF4A\_liver  
DHS\_...HepG2  
ATAC\_...H2G2885  
ATAC\_...H2G2759  
ATAC\_...left lung  
ATAC\_...H2G2852  
ATAC\_...left colon  
DHS\_...right lobe of liver  
TF\_CEBPB\_HepG2  
ATAC\_...left lobe of liver  
DHS\_...Huh7  
ATAC\_...GM12878  
ATAC\_...H2G2884  
ATAC\_...GM19328  
TF\_HNF4A\_HepG2  
ATAC\_...H2G2763  
TF\_FOXA3\_HepG2  
ATAC\_...DND-41

**CTCF (in HepG2)**

TF\_CTCF\_endothelial cell  
TF\_RAD21\_J1  
TF\_CTCF\_GM23338  
TF\_RAD21\_MCF-7  
TF\_CTCF\_K562  
TF\_CTCF\_HepG2  
TF\_CTCF\_WERI-Rb-1  
TF\_CTCF\_mammary epithelial cell  
ATAC\_...GM12878  
TF\_CTCF\_J1  
TF\_CTCF\_GM12885  
TF\_CTCF\_MCF-7  
ATAC\_...A549  
TF\_CTCF\_fibroblast of the aortic adventitia  
TF\_CTCF\_brain microvascular endothelial cell  
ATAC\_...DND-41  
TF\_RAD21\_SK-N-SH  
TF\_STAG1\_HepG2  
TF\_CTCF\_epithelial cell of proximal tubule  
TF\_CTCF\_LNCaP clone FOC

**Flanks**

TF\_HNF4A\_liver  
DHS\_...HepG2  
ATAC\_...H2G2885  
TF\_RXRA\_liver  
ATAC\_...H2G2759  
ATAC\_...left lung  
ATAC\_...H2G2852  
ATAC\_...left colon  
DHS\_...right lobe of liver  
TF\_CEBPB\_HepG2  
ATAC\_...left lobe of liver  
DHS\_...Huh7  
ATAC\_...GM12878  
ATAC\_...H2G2884  
ATAC\_...GM19328  
TF\_HNF4A\_HepG2  
ATAC\_...H2G2763  
TF\_FOXA3\_HepG2  
ATAC\_...DND-41