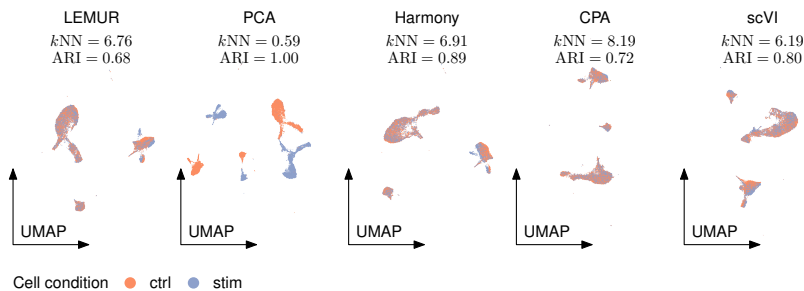
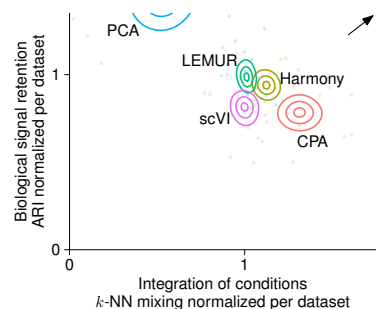


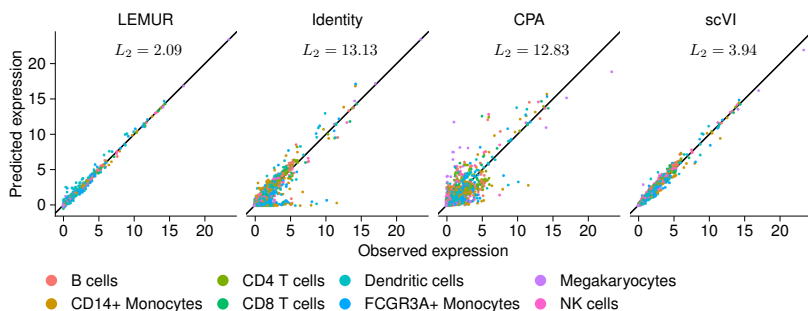
### (A) Latent space ( $Z$ ) of Lupus patient samples treated with IFN- $\beta$ (Kang)



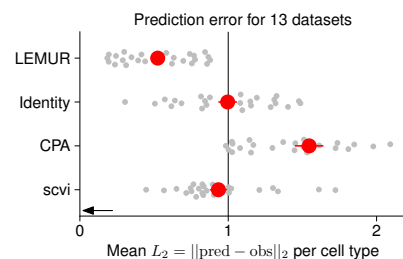
### (B) Integration Performance



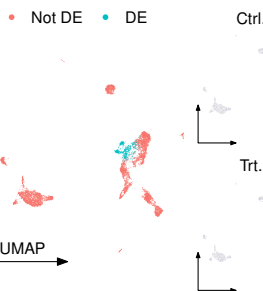
### (C) Predicted vs. observed gene expression per gene and cell type



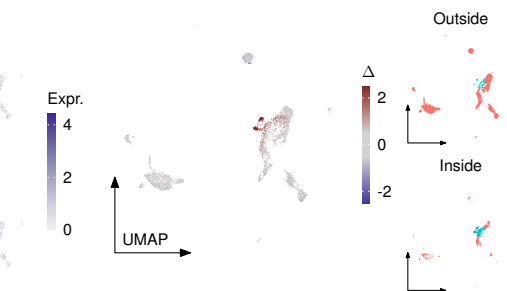
### (D) Prediction performance



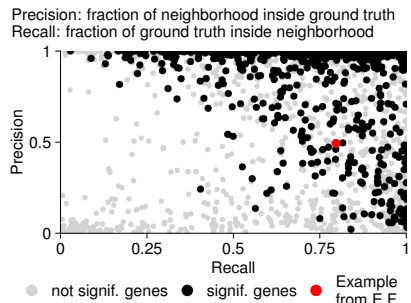
### (E) Simulated DE



### (F) Predicted DE and neighborhood

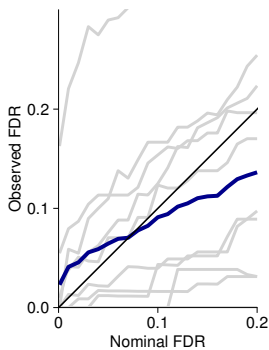


### (G) Neigh. comparison with ground truth



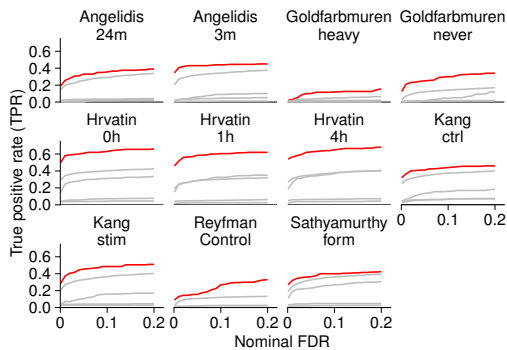
### (H) FDR control

Eleven datasets (mean)



### (I) DE-test Power

Comparison of LEMUR against four other DE. methods



### (J) Power by no. cell with expr. change

Fraction of simulated genes (grey) with FDR < 0.1 (blue)

