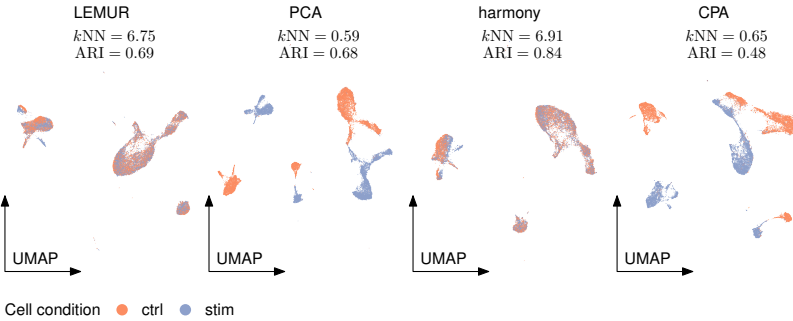
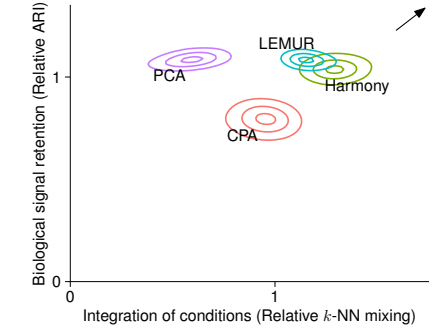


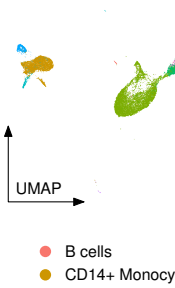
### (A) Latent space ( $Z$ ) of Lupus patient samples treated with IFN- $\beta$ (Kang)



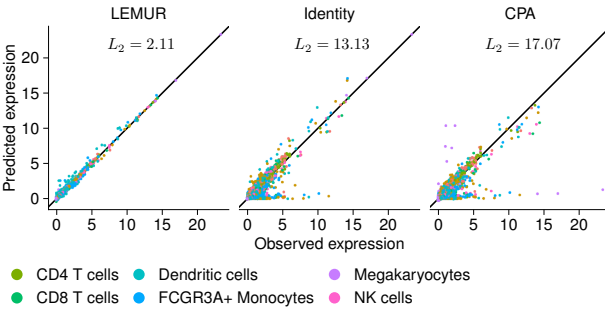
### (B) Integration Performance



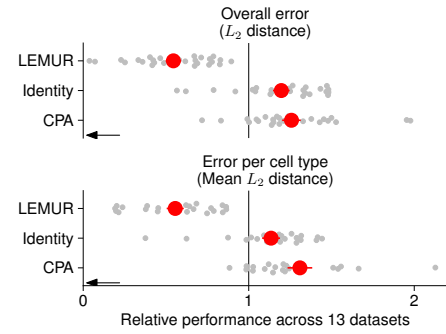
### (C) $Z$ colored by cell type



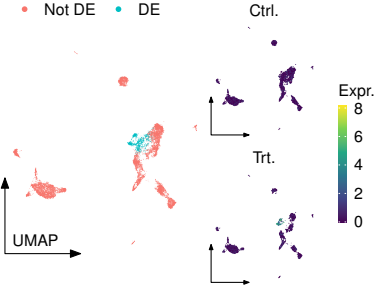
### (D) Predicted vs. observed gene expression per cell type



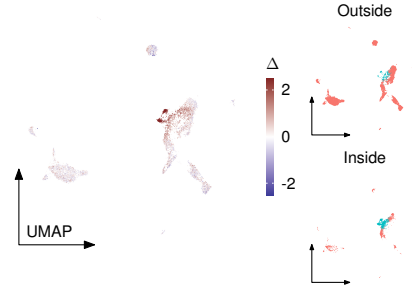
### (E) Prediction performance



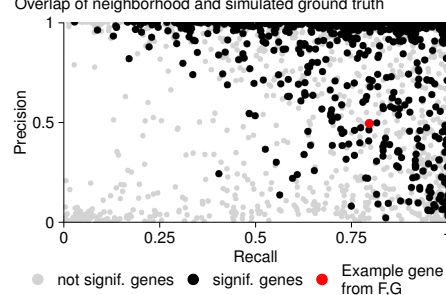
### (F) Simulated DE



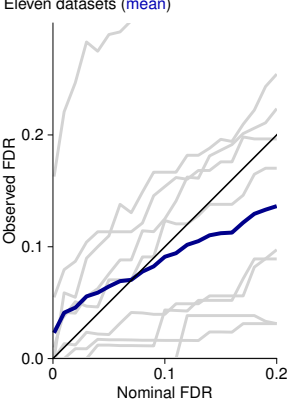
### (G) Predicted DE with neighborhood



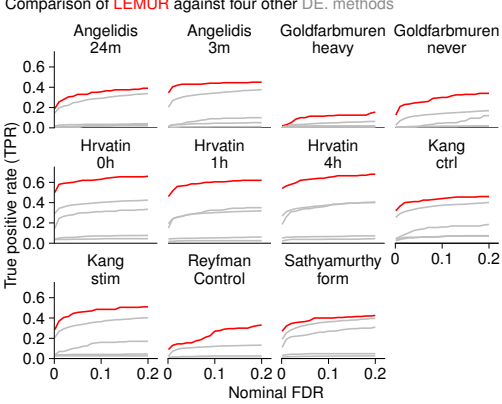
### (H) Neighborhood Precision and Recall



### (I) FDR control



### (J) DE-test Power



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

