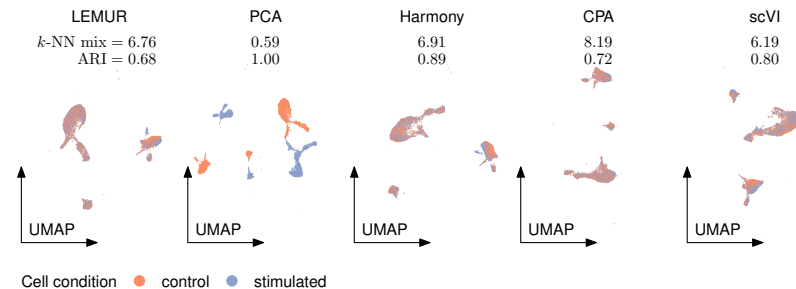
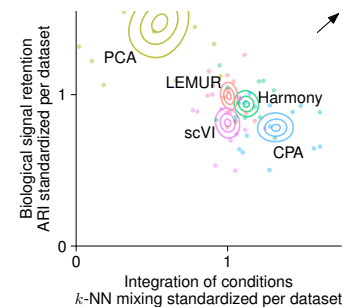
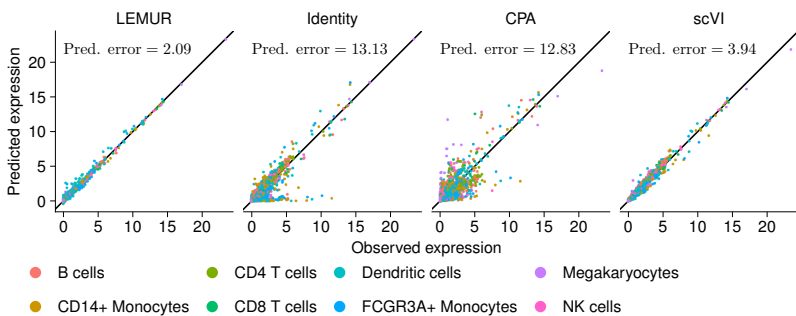
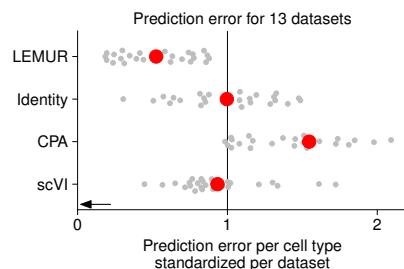
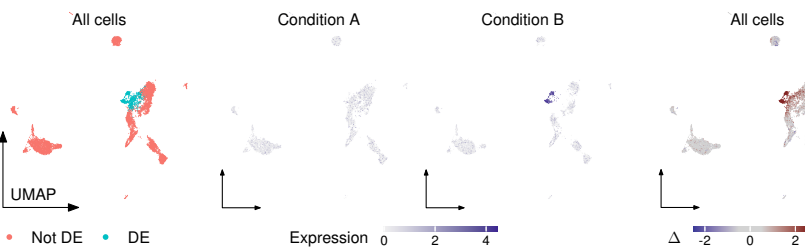
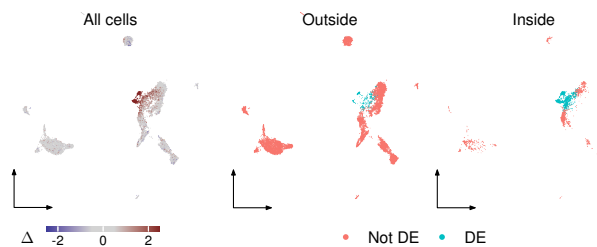


**(A) Latent space (Z) of Lupus patient samples treated with IFN- $\beta$  (Kang)****(B) Integration Performance****(C) Predicted vs. observed gene expression per gene and cell type****(D) Prediction performance****(E) Simulated DE for one example gene****(F) LEMUR predicted DE and inferred neighborhood****(G) Control of the FDR and power (at nominal FDR = 10%)**