

### A.1 Effect of perplexity parameter on t-SNE plots

To validate that the t-SNE plots in the main paper are representative, we here show the plots resulting from a parameter sweep of the perplexity parameter from  $2^{-2}$  to  $2^{12}$  for the Human Cell dataset from FLIP. The plots show that our observation that HID preserves more global structure in the t-SNE plots than STID is robust to different parameter values. All embeddings were run to convergence.







