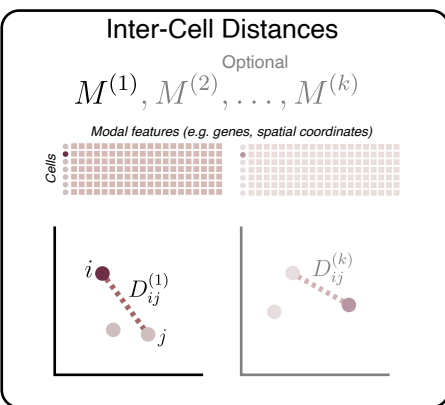


# Supp. Figure 1 – CellTRIP Model Training Details



$M^{(k)}$  Modal data  
 $D^{(k)}, d_{ij}$  Distance for modality and latent space  
 $X, \vec{x}_i, V, \vec{v}_i$  Cell position and velocity  
 $E^{(k)}, E_a, E_b, E_s$  Modality, cell, neighbor, and state encoders  
 $\vec{a}_i, \vec{b}_{ij}$  Cell and neighbor embeddings  
 $S, \vec{s}_i, \Delta V, \Delta \vec{v}_i$  State and action vectors and matrices  
 $\sum$  User-defined model randomness  
 $\pi_{\theta}$  Trained policy  
 $\phi$  Perturbation

