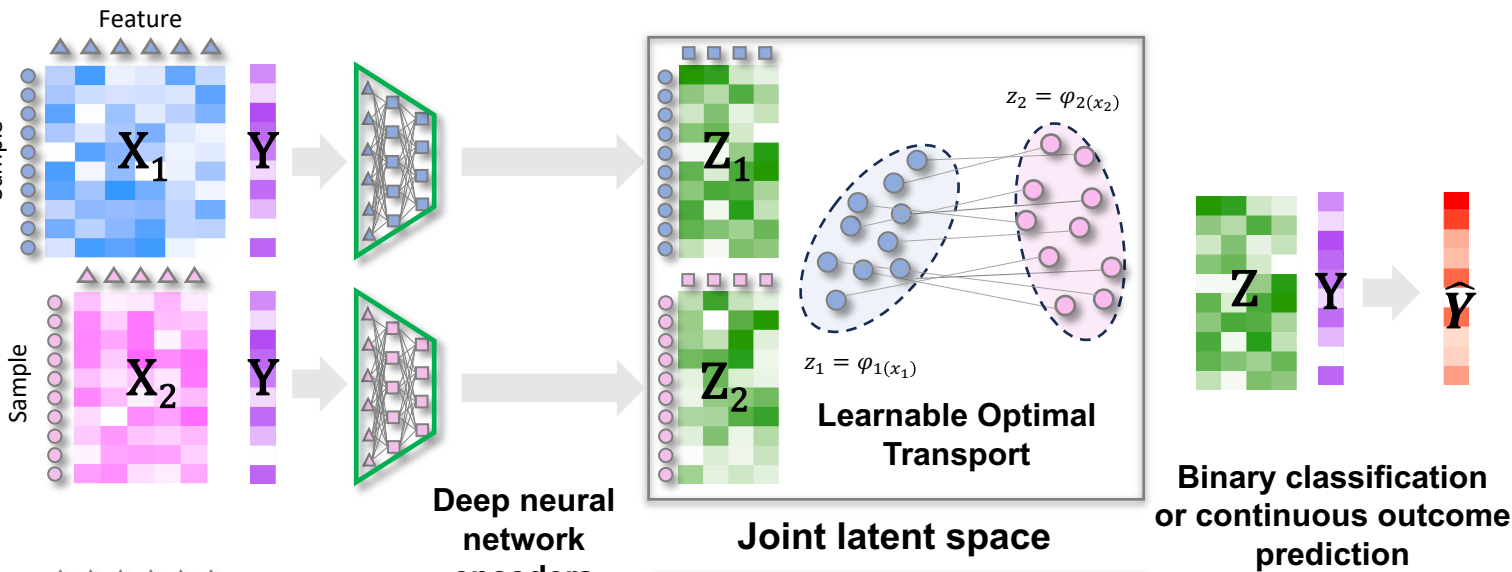
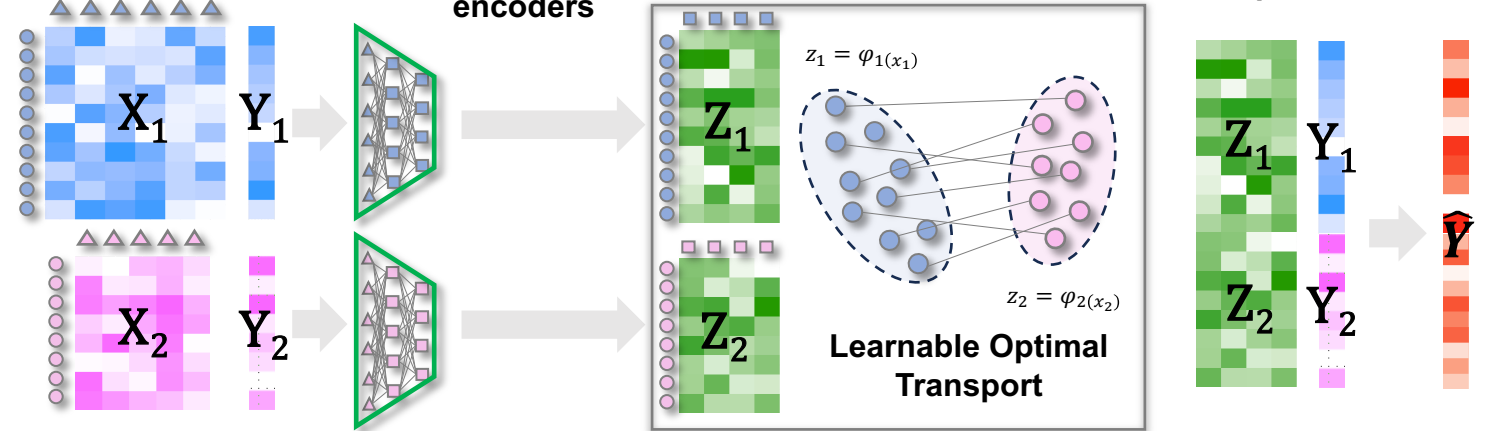


Cooperative multi-view integration with Deep encoders and Optimal Transport for disease phenotype prediction (Coop-DOT)

Early fusion

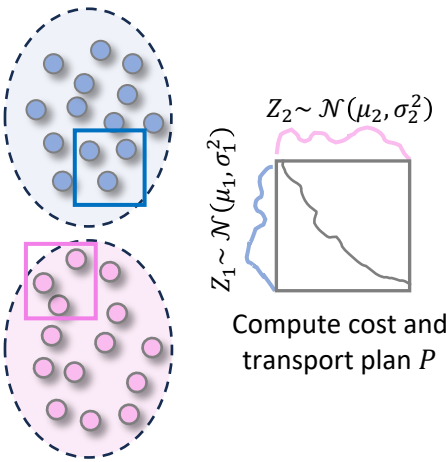


Late fusion



Learnable Optimal Transport

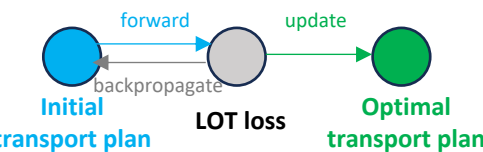
Mini-batch optimization



Domain-specific regularization

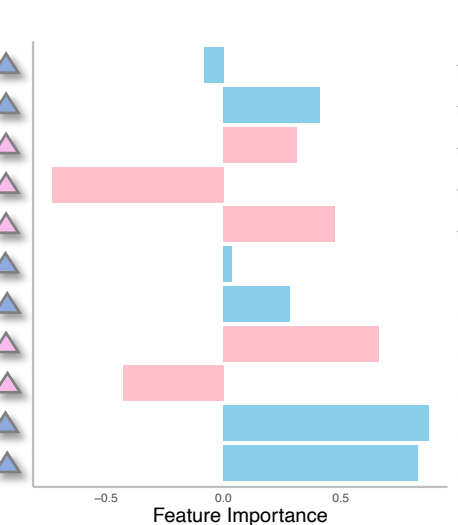
$$H(P) = - \sum_{i=1}^{n_1} \sum_{j=1}^{n_2} P_{ij} \log(P_{ij})$$
$$P \leftarrow P - \text{reg} \cdot \nabla H(P)$$

Learnable transport plan



Scalable and Interpretable Model Explainer (SIME)

Feature Importance



Feature Interaction

