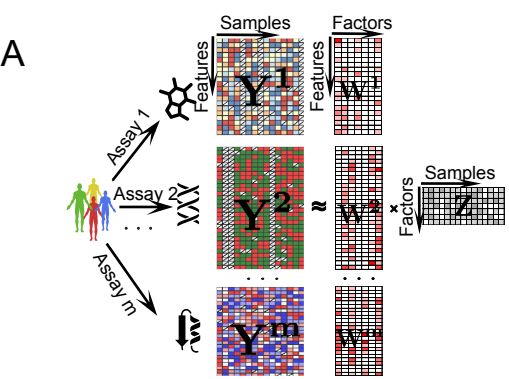
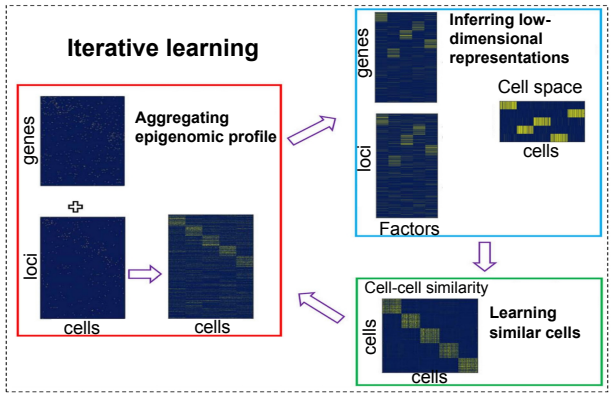
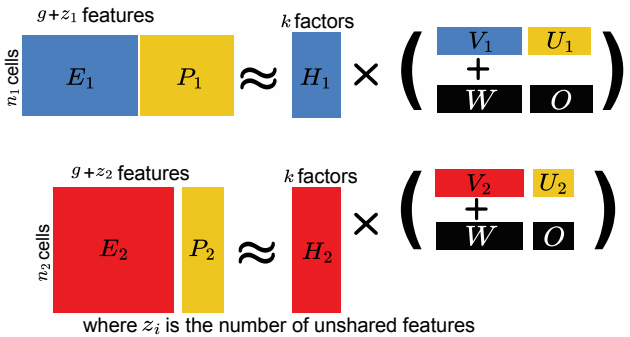
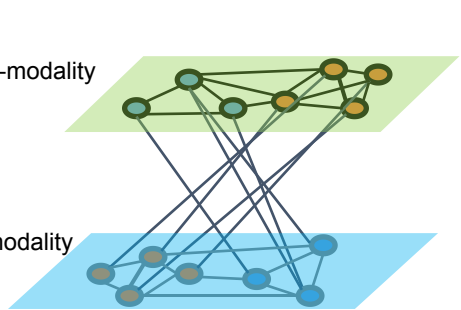


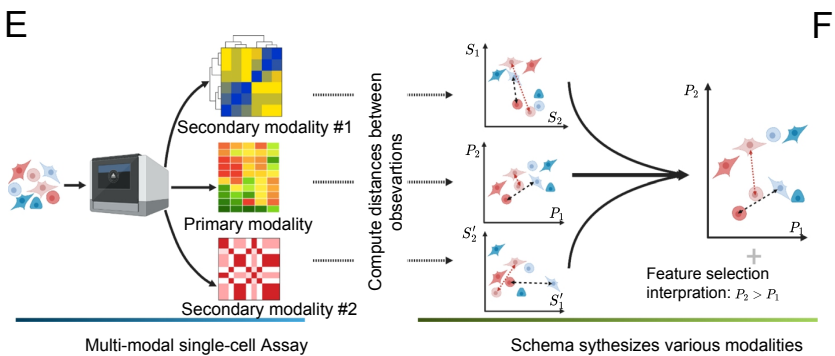


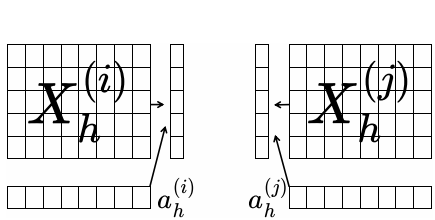


$$\underset{H^i\geq 0, W\geq 0, V^i\geq 0, U^i\geq 0}{\arg\min} \sum_i^d \left\| (E^i P^i) - H^i((W\ 0) + (V^i U^i)) \right\|_F^2 + \lambda_i \sum_i^d \left\| H^i (V^i U^i) \right\|_F^2$$



$$\theta_{weighted}(i,j) = w_{rna}(i)\theta_{rna}(r_i, r_j) + w_{protein}(i)\theta_{protein}(p_i, p_j)$$





$$\max_{a_h^{(1)},\cdots,a_h^{(Q)}} \sum_{i,j=1,i\neq j}^{Q} c_{i,j}\mathrm{cov}\left(X_h^{(i)}a_h^{(i)}, X_h^{(j)}a_h^{(j)}\right),$$
$$s.t. \left\|a_h^{(q)}\right\|_2 = 1 \text{ and } \left\|a_h^{(q)}\right\|_1 \leq \lambda^{(q)} \text{ for all } 1 \leq q \leq Q$$