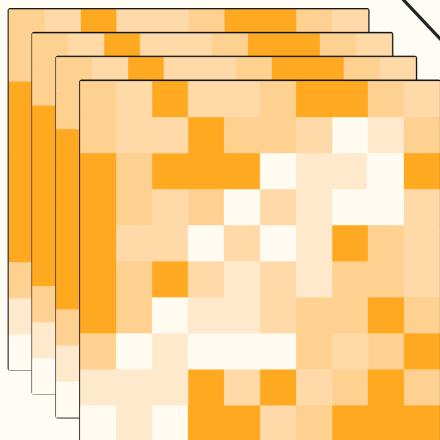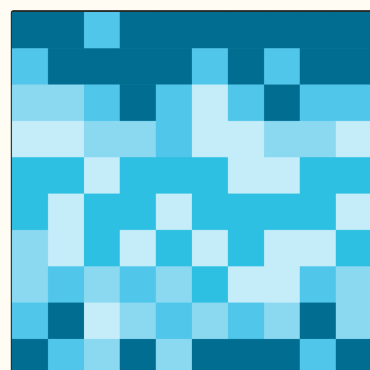**Training**
TransNEO ($n = 94$)

Bulk Expression

Tumor types
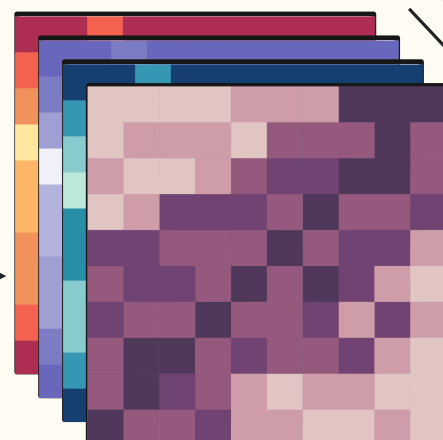
Molecular Signature

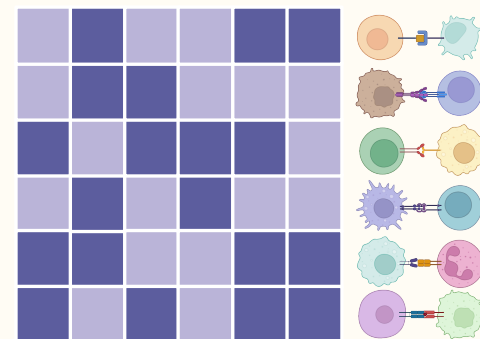Cell-type-specific Expression

Cell types

CODEFACS

LIRICS

Cell-cell Interactions

1 Likely to occur
0 Unlikely to occur

OR

Machine Learning Pipeline

Prefiltering

Low-variance filtering

Feature selection ($m \leq M$)

Classifier training

Validation

ARTemis + PBCP ($n = 55$)
BrighTNess ($n = 106$)
Zhang SC cohort ($n = 15$)

Predictor

Sensitivity

AUC

1 - Specificity

Chemotherapy Response Prediction