## **Bladder Cancer Treatment Response Prediction System**

Patient ID: TCGA-FD-A3B8-01

True Response: Responder

**Gene Expression** 

46.0%

Low confidence

**Predicted: Non-responder** 

Model: XGBOOST | Features: 500

**DNA Methylation** 

79.0%

High confidence

**Predicted: Responder** 

Model: MLP | Features: 2000

## FUSION PREDICTION RESPONDER

**Protein Expression** 

**Clinical Recommendation:** 

Consider standard therapy - patient likely to respond

**Mutation Status** 

79.2%

High confidence

**Predicted: Responder** 

Model: XGBOOST | Features: 750

## **Key Molecular Features**

Gene Expression: ZFP64 (-0.08), AADACL2 (-0.25), ZNF69 (-0.82)

Protein Expression: 4E-BP1-R-V (0.39), AMPK alpha-R-C (1.22), ASNS-R-V (-0.37)

DNA Methylation: cg11751117 (1.23), cg16453474 (-0.51), cg16218705 (0.12)

Mutation Status: GPC5 (0.00), RAI14 (0.00), ACTN2 (0.00)