

Tumour samples with genomics and HR defect-targeting drug response data

Construction of genomic signature predictive of HR defect-targeting drug sensitivity

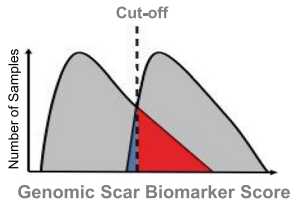
Construction of mutational/transcriptomic signature predictive of HR defect-targeting drug resistance given genomic scar-predicted drug sensitivity

INTEGRATED PREDICTIVE BIOMARKER

Low PPV & High NPV

Genomic Scar Biomarker

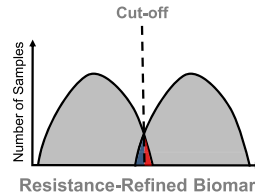
PREDICTED NON-RESPONDERS PREDICTED RESPONDERS



High PPV & High NPV

Resistance-Refined Biomarker

PREDICTED NON-RESPONDERS PREDICTED RESPONDERS



■ False Positives
■ False Negatives

Establishment of an optimal cut-off to predict HR defect-targeting drug response as a binary outcome **with high NPV**

Establishment of an optimal cut-off to predict HR defect-targeting drug response as a binary outcome **with improved PPV**

PREDICTED NON-RESPONDERS

PREDICTED RESPONDERS

PREDICTED NON-RESPONDERS

PREDICTED RESPONDERS

No treatment with HR defect-targeting drug therapy

Treatment with HR defect-targeting drug therapy