

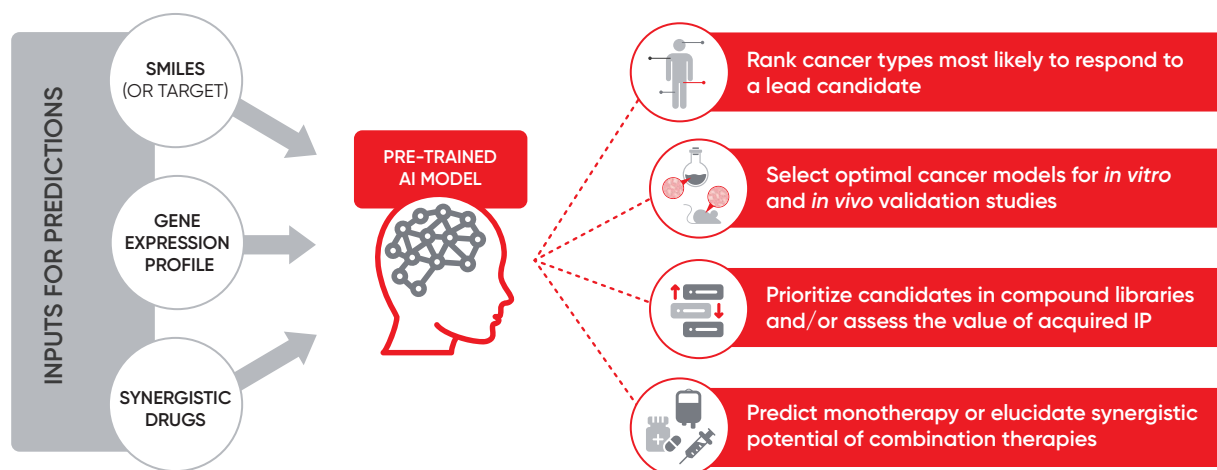
Accelerating Drug Discovery and Biomarker Development

CertisAI™ Predictive Oncology Intelligence is a proprietary *in silico* platform that utilizes machine learning to predict drug efficacy based on gene expression biomarkers. This pan-cancer solution can accelerate drug discovery and companion diagnostics development.

There are two ways to leverage the power of CertisAI.

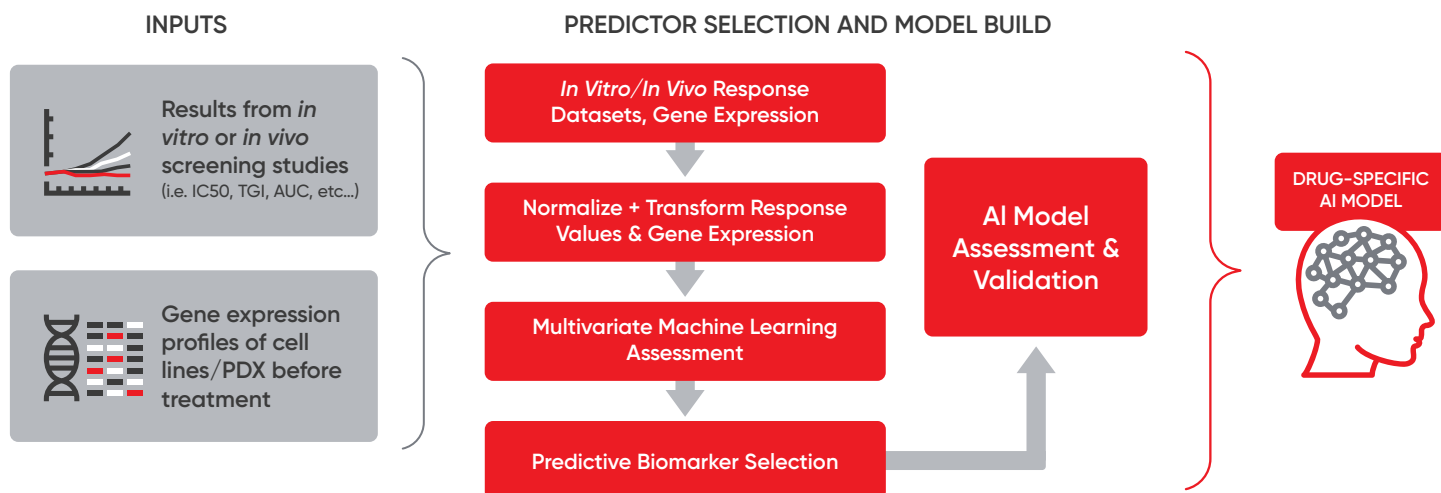
Use Certis' pre-trained AI models.

It's the fastest way to get predictions, and no additional laboratory experiments are required—all analyses are performed *in silico*. Trained on over 1 million endpoints from high-throughput experiments, Certis' pre-trained cancer AI models can predict monotherapy or combination efficacy directly from a drug's molecular structure.



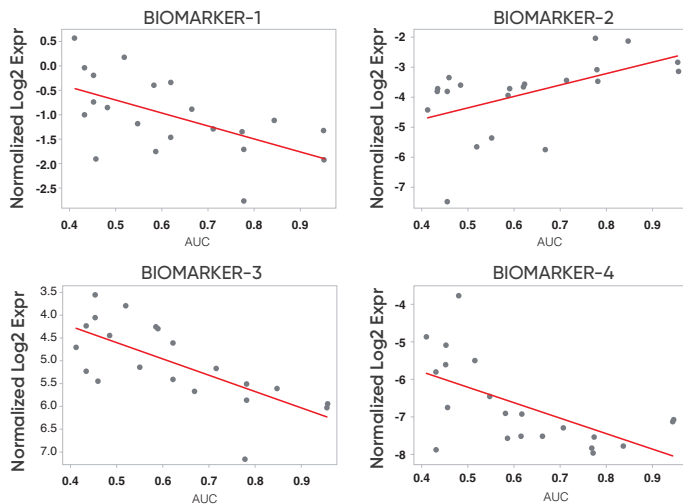
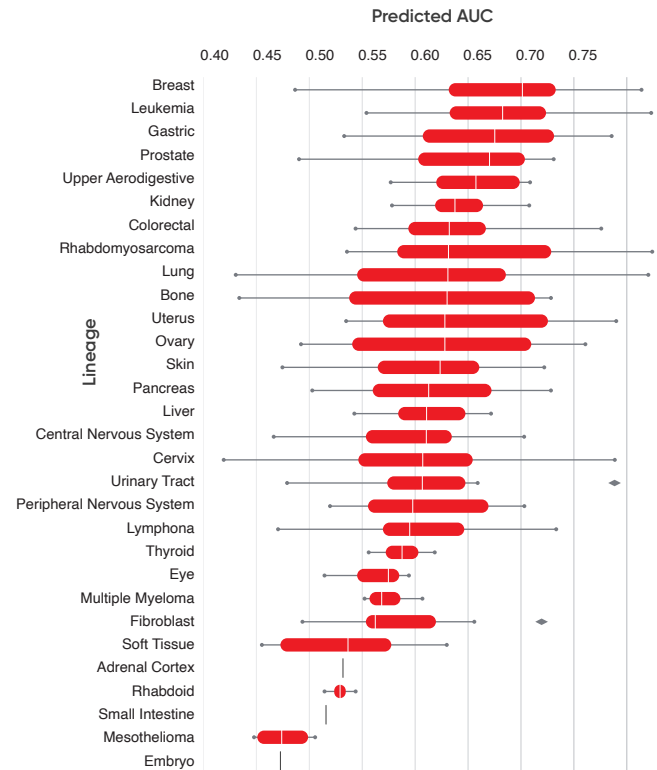
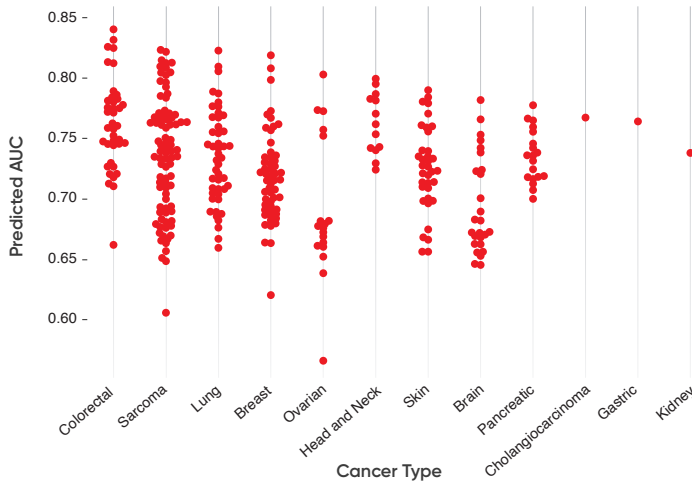
Engage Certis to develop a custom AI model unique to your drug.

This is the optimal way to uncover predictive biomarkers for model selection and patient stratification. Utilizing multivariate machine learning algorithms, Certis uncovers predictive biomarkers and biological pathways from your HTS *in vitro* screening assays and/or high powered *in vivo* experiments. Certis data scientists can help design the right experiments for custom AI model development specific to your investigational drug.



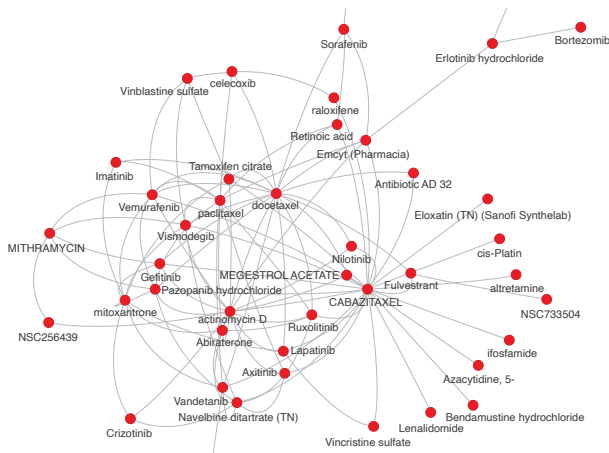
Efficacy prediction on Certis PDX models using predictive biomarkers from a drug's custom AI model.

Using predictive biomarkers from a drug's custom AI model can help inform commercial strategy—from selecting the optimal indication to drug repurposing and label expansion. This box plot shows the relative predicted efficacy of an FDA-approved monotherapy across multiple cancer types.



This box plot shows the predicted efficacy dispersion of an FDA-approved monotherapy across multiple cancer types.

Unlike common single-biomarker strategies often employed in precision medicine, CertisAI™ uses multivariate machine learning algorithms to find multiple biomarkers to capture the nuance of biomarker interactions and bring greater accuracy to predictions of drug efficacy.



Certis utilizes high throughput drug combination experiments to train CertisAI to uncover a network of synergistic drug combinations (left figure). Resulting pre-trained AI models can predict the synergistic potential of two therapies in combination. Predictions are then tested and validated *in vitro* to inform dosing strategies (right figure).

