Cancer immunotherapies have the potential to treat cancer by harnessing the power of our own immune systems.

### Predicting Better Responses

High TMB can help predict responses to FDA-approved cancer immunotherapies in lung cancer, bladder cancer, and melanoma.

- **Overall survival (OS)** in melanoma patients treated with anti-CTLA-4 immunotherapy compared to low TMB:
  - **3.5 YEARS LONGER**
  - **8.**

- High TMB was associated with **3X MORE MEDIAN PFS** in lung cancer compared to low TMB:
  - **4X LONGER MEDIAN PFS**
  - **LOW TMB**
  - **HIGH TMB**

### Measuring TMB

TMB can be measured by sequencing the genome of a tumor by comprehensive genomic profiling. Traditional "hotspot" genomic testing may give an incomplete view of the mutational landscape.

### A New, Quantitative Clinical Marker

Tumor Mutational Burden (TMB) is the TOTAL NUMBER OF MUTATIONS per coding area of a tumor genome. Higher TMB levels are correlated with HIGHER LEVELS OF NEOANTIGENS which help our immune system to recognize tumors.

### Predicting Cancer Immunotherapy Response with Tumor Mutational Burden (TMB)

- **Cancer Immunotherapy**
- **All-In-One**

**Comprehensive genomic profiling simultaneously examines >300 cancer-related genes, measuring TMB and other important clinical markers.**

**The comprehensive FoundationOne® test is designed to deliver actionable insights than standard hotspot testing,** giving you the power to make more informed decisions.

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