

Supplemental Material

Tumor mutation burden for predicting immune checkpoint blockade response: the more, the better

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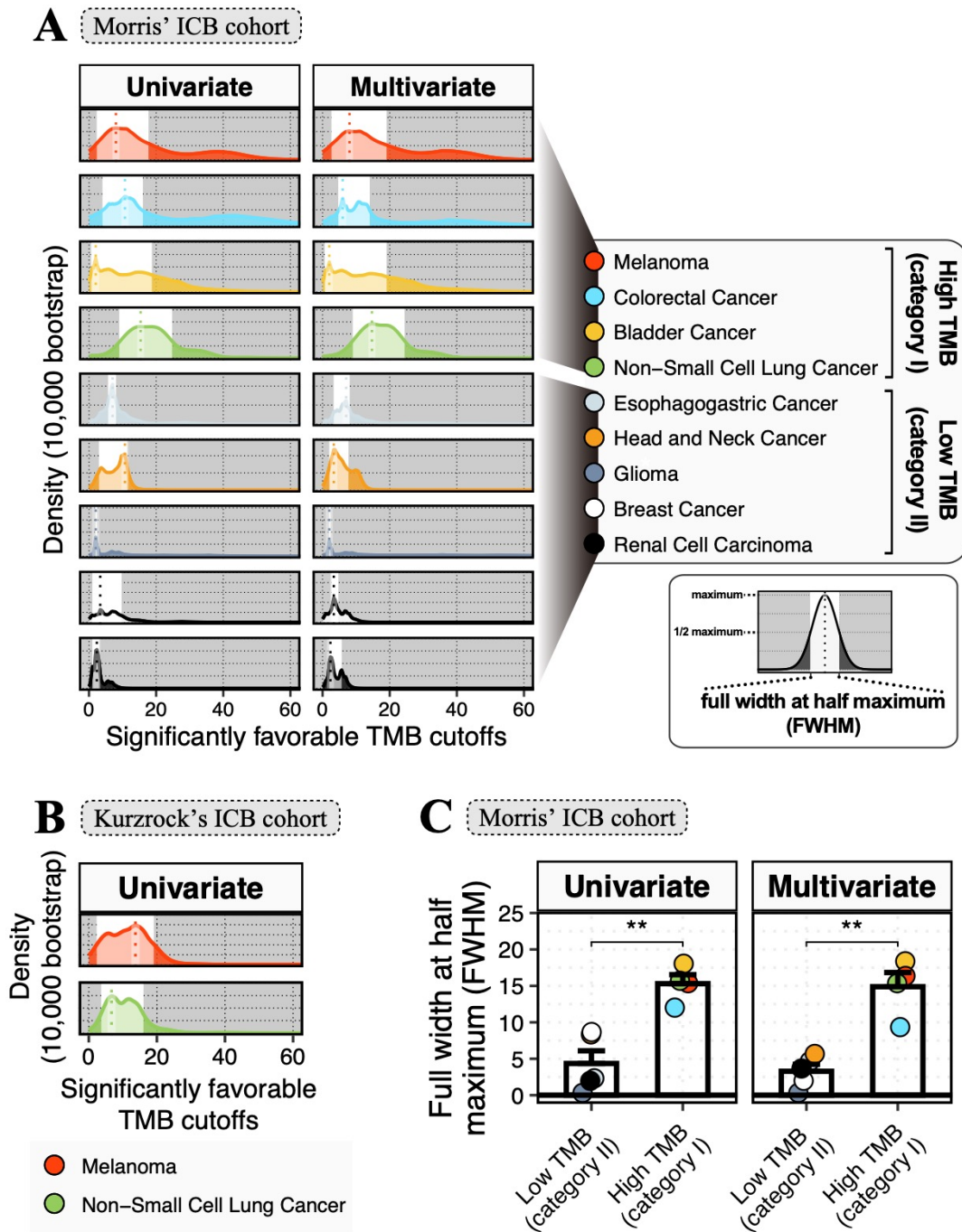
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Supplemental Figure

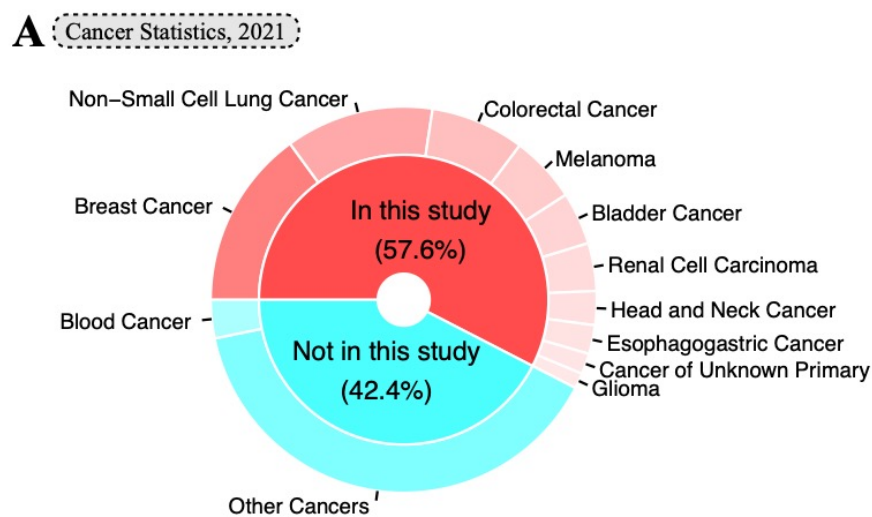
Supplemental Figure 1



Supplemental Figure 1. Different shapes of the distributions of significant TMB cutoffs for predicting favorable ICB treatment outcomes in different cancer types.

(A-B) The shapes of the distributions of significant TMB cutoffs for predicting favorable ICB treatment outcomes in different cancer types. The density plot shows the distributions of significantly favorable TMB cutoffs calculated by 10,000 bootstrap replicates. Different colors represent cancer types in both Morris's **(A)** and Kurzrock's **(B)** cohorts. The colored dashed line indicates the maximum amplitude in the distribution. The white area indicates the full width at half maximum (FWHM). The lower right panel shows the graphical illustration of FWHM analysis. **(C)** The FWHMs in the distributions of significantly favorable TMB cutoffs in two categories of cancer types defined by TMB levels. High TMB (category I) cancer types: melanoma, colorectal cancer, bladder cancer, and non-small cell lung cancer; low TMB (category II) cancer types: esophagogastric cancer, head and neck cancer, glioma, breast cancer, and renal cell carcinoma. Error bar shows the mean \pm standard error (SE). The results were considered statistically significant when $p < 0.05$ (*), $p < 0.01$ (**), $p < 0.001$ (***), and $p < 0.0001$ (****) and insignificant when $p \geq 0.05$ (ns) using Student's t-test.

Supplemental Figure 2



Supplemental Figure 2. The estimated new cancer cases by cancer types in the United States in 2021.

(A) The donut plot shows the percentage of estimated new cancer cases by cancer types in the United States in 2021. The red color represents the cancer types analyzed in this study, and the blue color represents the cancer types not in this study.