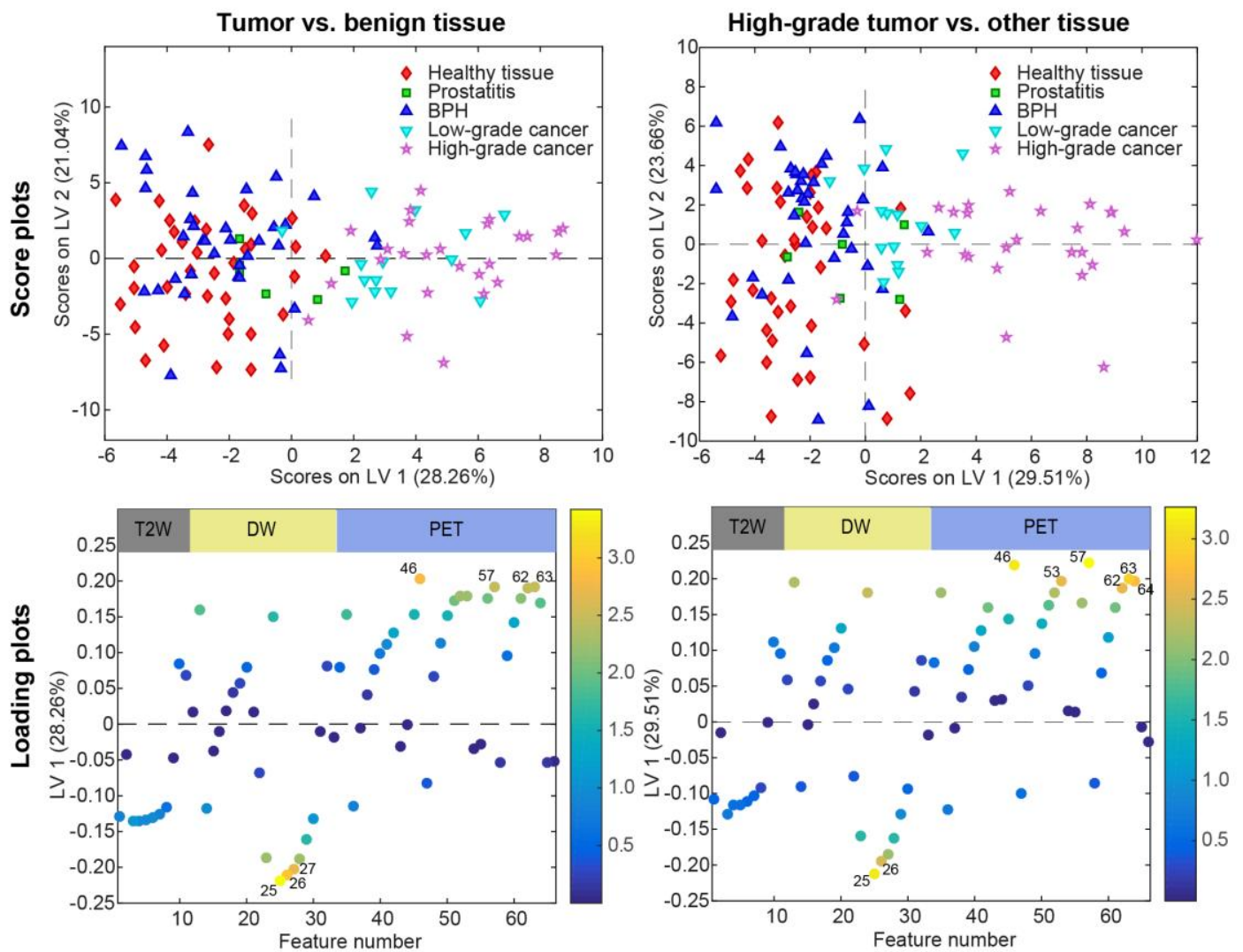


## SUPPLEMENTAL MATERIAL



**Supplemental Figure 1.** Overview of the scores and loadings plots of the PET/T2W+DW MRI models for the VOI-level classification tasks. The scores plots (upper row) show the excellent discrimination between tumor and benign tissue (left) and between high-grade tumor and other tissue (right) on LV1. The loadings (bottom row) are colored by their VIP score, showing that low ADC values (labels 25, 26, 27), high SUV values (labels 53, 62, 63, 64), and high standard deviations (labels 46, 57) were the most important features characterizing the malignant classes. Features 1-11: mean, standard deviation, minimum, 10% percentile, 25% percentile, median, 75% percentile, 90% percentile, maximum, skewness, and kurtosis, respectively, for nT2W; 12-22: for b800; 23-33: for ADC; 34-44: for SUV<sup>5-10</sup>; 45-55: for SUV<sup>18-23</sup>; 56-66: for SUV<sup>33-38</sup>