

Supplemental Table 5: Number of features with an AUC significantly greater than 0.5 using original ROIs and eroded ROIs. The last row gives the features found significant both using the original ROIs and the eroded ROIs. Bold numbers in brackets give the numbers of significant features after Benjamini-Hochberg correction for multiple comparisons, with corresponding feature names are in bold.

Number of significant 2D features (Discovery set)				
	Raw data	N4ITK corrected data	N4ITK corrected and normalized data	
Initial ROIs	8 (5)	9 (4)	22 (20)	
ROIs after 1.5 mm erosion	11 (4)	10 (4)	26 (22)	
Features found in both cases	HISTO_Skewness SHAPE_Volume GLCM_Correlation GLRLM_GLNU GLRLM_RLNU NGLDM_Coarseness GLZLM_GLNU GLZLM_ZLNU	SHAPE_Volume GLCM_Correlation GLCM_Entropy_log2 GLCM_Entropy_log10 GLRLM_GLNU GLRLM_RLNU NGLDM_Coarseness GLZLM_GLNU GLZLM_ZLNU	HISTO_Skewness SHAPE_Volume GLCM_Homogeneity GLCM_Contrast GLCM_Correlation GLCM_Entropy_log2 GLCM_Entropy_log10 GLCM_Dissimilarity GLRLM_SRE GLRLM_LRE GLRLM_GLNU	GLRLM_RLNU GLRLM_RP NGLDM_Coarseness NGLDM_Contrast NGLDM_Busyness GLZLM_SIZE GLZLM_LZE GLZLM_SZHGE GLZLM_GLNU GLZLM_ZLNU GLZLM_ZP

Supplemental Table 6: Number of features with an AUC significantly greater than 0.5 using our 2D approach, selecting the median value of the 2D features computed for all slices encompassing the tumor and the conventional approach 2D approach, selecting the feature value in the slice including the largest tumor area. Numbers in brackets give the numbers of significant features after Benjamini-Hochberg correction for multiple comparisons, with corresponding feature names in bold.

Number of significant 2D features (Discovery set)				
	Raw data	N4ITK corrected data	N4ITK corrected and normalized data	
Our global 2D approach	8 (5)	9 (4)	22 (20)	
One-slice based 2D approach	9 (1)	5 (1)	16 (12)	
Features found in both cases	HISTO_Skewness SHAPE_Volume GLCM_Correlation GLRLM_GLNU GLRLM_RLNU GLZLM_GLNU GLZLM_ZLNU	SHAPE_Volume GLCM_Correlation GLRLM_RLNU GLZLM_ZLNU	SHAPE_Volume GLCM_Homogeneity GLCM_Contrast GLCM_Correlation GLCM_Dissimilarity GLRLM_SRE GLRLM_LRE GLRLM_GLNU	GLRLM_RLNU GLRLM_RP NGLDM_Contrast GLZLM_SZE GLZLM_LZE GLZLM_GLNU GLZLM_ZLNU GLZLM_ZP