

Table E3. Significant ($P < .05$) Correlations between the VASARI Image Features and Quantitative Image Features

VASARI Feature	Quantitative Image Feature	<i>P</i> Value	False Discovery Rate
DeepWM-InternalCapsule	EdgeSharpnessScale-minEnhancement	.0061062	0.0019931
DeepWM-InternalCapsule	EdgeSharpnessBlurriness-minNecrosis	.015627	0.0025503
DeepWM-InternalCapsule	EdgeSharpnessWindow-maxEdema	.039344	0.0042806
DefEnhanceMargin-Well-defined	HistogramRaw-varEnhancement	.00050808	0.0091439
DefEnhanceMargin-Well-defined	HistogramRaw-varNecrosis	.00060198	0.005417
DefEnhanceMargin-Well-defined	EdgeSharpnessScale-medianEnhancement	.0015981	0.0041086
DefEnhanceMargin-Well-defined	HistogramRaw-maxNecrosis	.0018676	0.0042014
DefEnhanceMargin-Well-defined	EdgeSharpnessScale-meanEnhancement	.0025358	0.0045638
DefEnhanceMargin-Well-defined	HistogramRaw-kurtosisEnhancement	.0034165	0.0051239
DefEnhanceMargin-Well-defined	EdgeSharpnessScale-medianNecrosis	.0045674	0.0063231
DefEnhanceMargin-Well-defined	EdgeSharpnessScale-minNecrosis	.0052656	0.006769
DefEnhanceMargin-Well-defined	HistogramRaw-maxEnhancement	.0069547	0.0083443
DefEnhanceMargin-Well-defined	EdgeSharpnessWindow-maxEdema	.0079759	0.0089714
DefEnhanceMargin-Well-defined	EdgeSharpnessScale-meanNecrosis	.0091247	0.0096599
DefEnhanceMargin-Well-defined	HistogramRaw-kurtosisEdema	.0091247	0.0091233
DefEnhanceMargin-Well-defined	HistogramRaw-minNecrosis	.013477	0.012766
DefEnhanceMargin-Well-defined	RDS-minEnhancement	.013507	0.012154
DefEnhanceMargin-Well-defined	HistogramRaw-skewnessNecrosis	.015335	0.013142
DefEnhanceMargin-Well-defined	EdgeSharpnessWindow-medianEdema	.017377	0.014215
DefEnhanceMargin-Well-defined	HistogramRaw-minEnhancement	.02353	0.018412
DefEnhanceMargin-Well-defined	EdgeSharpnessWindow-medianEnhancement	.031562	0.023668
DefEnhanceMargin-Well-defined	EdgeSharpnessScale-minEnhancement	.044147	0.031781
Diffusion-Mixed	RDS-meanEdema	.016206	0.0023134
Diffusion-Mixed	HistogramRaw-maxNecrosis	.029728	0.0014146
Diffusion-Mixed	EdgeSharpnessWindow-maxEnhancement	.048145	0.0013745
EnhanceQual-Marked	EdgeSharpnessScale-meanEnhancement	.006008	0.047056
EnhanceQual-Marked	HistogramRaw-varEnhancement	.006008	0.035292
EnhanceQual-Marked	HistogramRaw-kurtosisEnhancement	.0084666	0.02842
EnhanceQual-Marked	HistogramRaw-maxNecrosis	.011789	0.034625
EnhanceQual-Marked	HistogramRaw-skewnessEnhancement	.011789	0.0277
EnhanceQual-Marked	HistogramRaw-minNecrosis	.013818	0.029517
EnhanceQual-Marked	HistogramRaw-kurtosisEdema	.013849	0.027117
EnhanceQual-Marked	EdgeSharpnessWindow-medianEnhancement	.018941	0.034235
EnhanceQual-Marked	HistogramRaw-minEnhancement	.027523	0.043113
EnMarginThick-Thick	EdgeSharpnessScale-meanEnhancement	.006008	0.046605
EnMarginThick-Thick	HistogramRaw-varEnhancement	.006008	0.034954
EnMarginThick-Thick	HistogramRaw-kurtosisEnhancement	.0084666	0.028147
EnMarginThick-Thick	HistogramRaw-maxNecrosis	.011789	0.034293
EnMarginThick-Thick	HistogramRaw-skewnessEnhancement	.011789	0.027435
EnMarginThick-Thick	HistogramRaw-minNecrosis	.013818	0.029234
EnMarginThick-Thick	HistogramRaw-kurtosisEdema	.013849	0.026857
EnMarginThick-Thick	EdgeSharpnessWindow-medianEnhancement	.018941	0.033906
EnMarginThick-Thick	HistogramRaw-minEnhancement	.027523	0.042699

VASARI Feature	Quantitative Image Feature	P Value	False Discovery Rate
Ependymal-Present	EdgeSharpnessWindow-maxEnhancement	.00075393	0.021853
PialInvasion-Present	EdgeSharpnessBlurriness-minEdema	.017726	0.036353
PialInvasion-Present	RDS-meanEdema	.023057	0.023643
PropEdemax-5	EdgeSharpnessWindow-medianEdema	.00014633	1.67E-05
PropEdemax-5	HistogramRaw-maxNecrosis	.016474	0.00026912
PropEdemax-5	HistogramRaw-kurtosisEnhancement	.01836	0.00023329
PropEdemax-5	HistogramRaw-varEnhancement	.041499	0.00043142
PropEdemax-5	EdgeSharpnessScale-meanEdema	.041499	0.00039547
PropEdemax-5	EdgeSharpnessScale-medianEdema	.045659	0.00037295
PropEnhance6-33	HistogramRaw-kurtosisEdema	.014376	0.042331
PropnCETx-5	EdgeSharpnessScale-minEnhancement	.0038787	0.0024198
PropnCETx-5	EdgeSharpnessScale-meanNecrosis	.0042931	0.0013392
PropnCETx-5	EdgeSharpnessBlurriness-minNecrosis	.0070317	0.0014623
PropnCETx-5	EdgeSharpnessScale-medianNecrosis	.0085092	0.0013272
PropnCETx-5	EdgeSharpnessScale-medianEnhancement	.017574	0.0013705
PropnCETx-5	EdgeSharpnessScale-meanEnhancement	.029114	0.0018163
PropnCETx-5	HistogramRaw-varEnhancement	.029114	0.0016512
PropNecro34-66	RDS-meanNecrosis	.0045855	0.028835
PropNecro34-66	RDS-minNecrosis	.0073054	0.036751
PropNecro6-33	HistogramRaw-kurtosisEdema	.0085368	0.0046563
PropNecro6-33	HistogramRaw-varEdema	.022519	0.0061412
PropNecro6-33	HistogramRaw-medianEdema	.037925	0.0051713
PropNecrox-33	RDS-meanNecrosis	.0045855	0.027947
PropNecrox-33	RDS-minNecrosis	.0073054	0.035619
PropNecrox-5	HistogramRaw-skewnessNecrosis	.00031108	0.00060438
PropNecrox-5	HistogramRaw-kurtosisEdema	.00059434	0.0010104
PropNecrox-5	HistogramRaw-kurtosisNecrosis	.0014042	0.0021219
PropNecrox-5	HistogramRaw-maxNecrosis	.0066676	0.0090679
PropNecrox-5	HistogramRaw-kurtosisEnhancement	.014758	0.018246
PropNecrox-5	HistogramRaw-varEnhancement	.021397	0.02425
PropNecrox-5	HistogramRaw-varEdema	.033238	0.032288
PropNecrox-5	RDS-meanNecrosis	.042748	0.038757
PropNecrox-5	HistogramRaw-maxEnhancement	.048293	0.041049
Satellites-Present	EdgeSharpnessBlurriness-minEnhancement	.0046202	0.0047377

Note.—CET = contrast-enhancing tumor, nCET = non-contrast-enhancing tumor, RDS = radial distance signal.