

**Supplemental Table 1.** Results of quantitative analysis and visual inspection of <sup>11</sup>C-acetate PET/CT, <sup>1</sup>H MRS and MRI data

Patient No.	SUV max <sup>†</sup>		SUV 60% <sup>‡</sup>		CCP/C max <sup>§</sup>		CCP/C avg <sup>  </sup>		Agreement with biopsy	
	D <sup>¶</sup>	ND <sup>#</sup>	D	ND	D	ND	D	ND	PET	MRI
1	4	4.9	2.7	3.5	1.16	1.14	0.97	0.69	no	no
2	4.2	3.4	3	2.5	N/A	N/A	N/A	N/A	yes	yes
3	5.1	5.1	3.4	3.4	1.97	1.97	1.15	1.15	no	no
4	7.2	4.6	5.7	3.4	1.73	1.1	1.21	0.85	yes	yes
5	3.7	3.8	2.7	2.3	1.54	0.73	1.01	0.38	yes	yes
6	4.6	3.5	3.2	2.5	1.97	1.97	1.11	1.37	yes	yes
7	5.8	4.8	4	3.3	0.6	1.08	0.44	0.52	yes	yes
8	6.5	5.4	4.5	3.7	2.36	1.61	0.69	0.63	yes	no
9	4.2	5	2.8	3.4	1.23	1.02	0.62	0.78	no	no
10	6.6	6.6	4.7	4.7	1.44	1.08	0.67	0.76	yes	yes
11	6.9	3.7	5.2	2.6	1.38	1.33	0.74	0.53	yes	yes
12	5.3	5.5	3.7	3.7	2.41	0.98	0.82	0.62	yes	yes
13	4.1	4.8	2.8	3.2	0.68	1.29	0.4	0.58	no	yes
14	3.6	3.6	2.6	2.6	1.62	1.62	1.04	1.04	yes	no
15	5.9	6.4	4.2	4.4	1.04	0.82	0.62	0.82	no	yes
16	12.2	3.5	8.6	2.5	1.47	1.44	0.91	0.91	yes	yes
17	3.7	5	3.7	3.3	1.23	1.77	0.6	0.93	yes	yes
18	4.7	4.5	3.2	3	N/A*	N/A	N/A	N/A	yes	no
19	7.3	6	5.2	4.3	1.57	1.08	0.65	0.52	yes	yes
20	4.7	4.7	3.3	3.3	1.29	0.7	1.16	0.7	yes	yes
21	6	7.4	4.1	5.2	N/A	N/A	N/A	N/A	no	yes
Mean	5.5	4.9	4.0	3.4	1.48	1.26	0.82	0.77	yes = 15	yes = 15
SD	1.9	1.1	1.4	0.8	0.49	0.39	0.25	0.24	no = 6	no = 6

\*N/A, not available; SUV max<sup>†</sup>, maximal standardized uptake value; SUV 60%<sup>‡</sup>- average standardized uptake values with a 60% threshold; CCP/C max<sup>§</sup>, maximal (choline+creatine+polyamines)/citrate ratio; CCP/C avg<sup>||</sup>, average (choline+creatine+polyamines)/citrate ratio; D<sup>¶</sup>, dominant lobe based on biopsy findings; ND<sup>#</sup>, nondominant lobe based on biopsy findings