Supplementary Table S1. Summary of metrics derived from a intratumor region with highest ^{18}F-Fluorocholine uptake, using a 3-compartment model with two input curves which accounts for non-specific uptake of radiometabolites. $K_{1,m}$ and $k_{2,m}$ represent influx and efflux of metabolites in tissue.

	All lesions (n=20)	Lesions with pathologic evidence of tumor (n=8)	Lesions with pathologic evidence of no tumor (n=4)	Normal brain (n=12)
v_B	0.07±0.07 (0.01-0.17)	0.07±0.07 (0.01-0.17)	0.06±0.05 (0.01-0.13)	0.04±0.02 (0.02-0.07)
K_1 (mL/min/g)	0.59±0.47 (0.06-1.61)	0.77±0.50 (0.22-1.61)	0.20±0.10 (0.06-0.28)	0.02±.01 (0.01-0.03)
k_2 (min^{-1})	0.12±0.11 (0.00-0.31)	0.15±0.11 (0.01-0.31)	0.06±0.07 (0.00-0.14)	0.36±0.31 (0.07-1.08)
k_3 (min^{-1})	0.07±0.07 (0.00-0.21)	0.09±0.08 (0.00-0.21)	0.02±0.03 (0.00-0.06)	0.11±0.08 (0.02-0.30)
$K_{1,m}$ (mL/min/g)	0.32±0.37 (0.00-1.47)	0.28±0.26 (0.00-0.65)	0.30±0.21 (0.08-0.55)	0.07±0.08 (0.00-0.24)
$k_{2,m}$ (min^{-1})	0.12±0.26 (0.00-1.04)	0.06±0.16 (0.00-0.42)	0.32±0.48 (0.03-1.04)	0.36±0.40 (0.00-1.11)