Supplementary Figures

Figure S1.

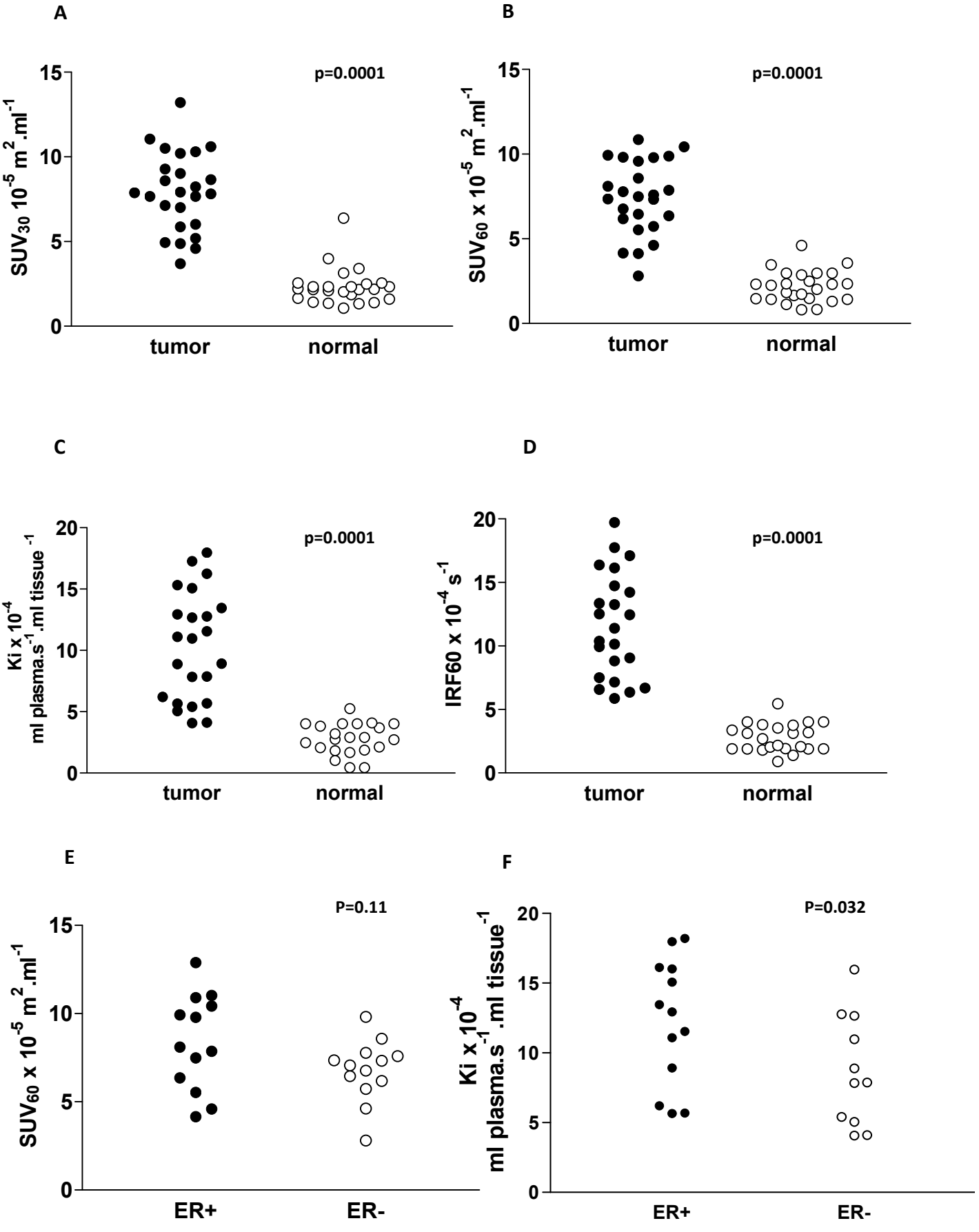
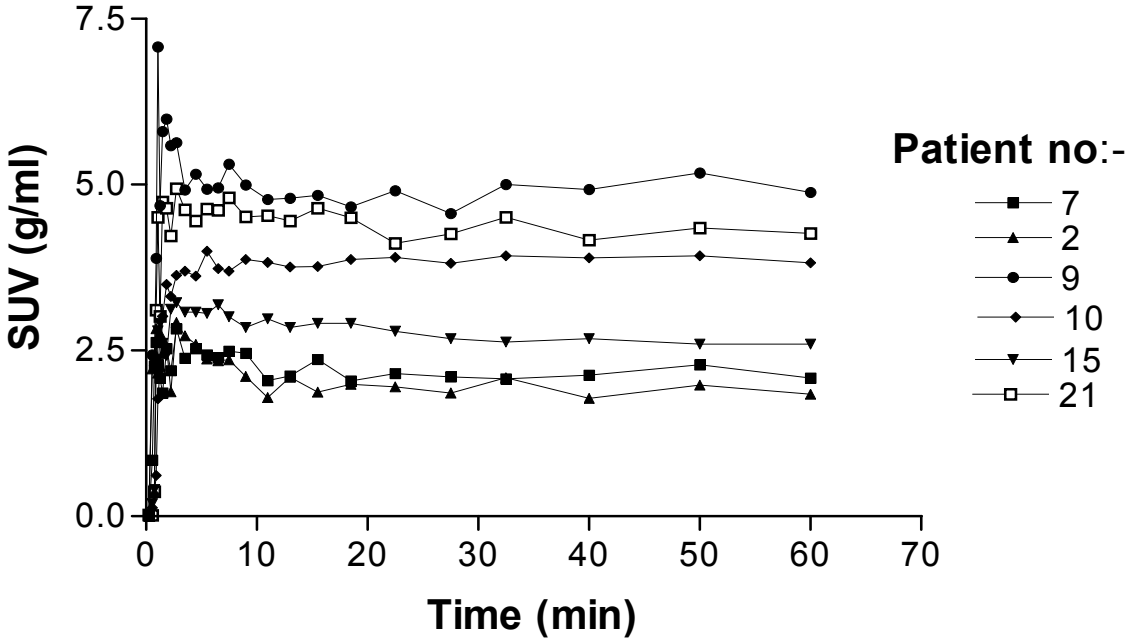


Figure S2


7.5
5.0
2.5
0.0
SUV (g/ml)
0
10
20
30
40
50
60
70
Time (min)
Patient no:-
7
2
9
10
15
21

Supplementary Figure Legends

Figure S1. Comparison of tumor and normal tissue uptake of [^{11}C]choline pharmacokinetic parameters. A) SUV_{30}, B) SUV_{60}, C) Ki obtained by modified Patlak analysis, D) Impulse Response Function (IRF) at 60min, E) SUV_{60} in ER positive and negative tumors (p=0.11), F) Ki in ER positive and negative tumors.

Figure S2. Range of tumor [^{11}C]choline uptake from 6 patients.

Table S1: Comparison of tumor and normal tissue uptake of [^{11}C]Choline

Patient	Region	SUV_{30} (BSA x 10^{-5} m^2/ml)	SUV_{60} (BSA x 10^{-5} m^2/ml)	AUC (m^2sec/ml)	Ki (x 10^{-4} ml plasma. ml tissue^{-1}.sec^{-1})	IRF60 (x10^{-3} s^{-1})
1	*breast tumor*	*5.793*	*4.598*	*0.210*	*5.658*	*1.037*
	Nbreast	*1.505*	*1.068*	*0.056*	*3.694*	*0.218*
2	*breast tumor*	*4.663*	*4.620*	*0.184*	*5.063*	*0.658*
	Nbreast	*1.814*	*2.493*	*0.067*	*2.474*	*0.180*
3	*breast tumor*	*3.500*	*2.806*	*0.107*	*4.077*	*0.716*
	Lung	*1.573*	*2.020*	*0.052*	*4.018*	*0.376*
4	*breast tumor*	*6.542*	*6.771*	*0.262*	*7.843*	*0.994*
	Nbreast	*1.433*	*1.470*	*0.074*	*1.671*	*0.208*
5	*breast tumor*	*4.884*	*5.537*	*0.209*	*5.694*	*0.669*
	Lung	*3.144*	*4.601*	*0.155*	*4.094*	*0.354*
6	*lung met.*	*10.311*	*9.798*	*0.387*	*12.947*	*1.253*
	Lung	*1.864*	*1.834*	*0.084*	*2.758*	*0.139*
7	*breast tumor*	*7.006*	*6.359*	*0.173*	*8.928*	*0.883*
	Nbreast	*1.390*	*1.476*	*0.036*	*1.873*	*0.189*
8	*breast tumor*	*9.019*	*7.492*	*0.330*	*11.098*	*0.906*
	Nbreast	*1.651*	*1.303*	*0.063*	*2.075*	*0.204*
9	*axillary node 1*	*13.211*	*12.890*	*0.504*	*18.212*	*2.026*
	cervical node .	*11.342*	*11.026*	*0.434*	*16.122*	*1.663*
	cervical node .	*11.340*	*10.910*	*0.440*	*16.025*	*1.757*
	Lung	*2.328*	*2.290*	*0.100*	*3.637*	*0.334*
10	*lung met*	*8.662*	*8.587*	*0.332*	*12.778*	*1.422*
	Lung	*1.733*	*1.733*	*0.071*	*2.129*	*0.270*

11	*breast tumor*	*7.921*	*7.362*	*0.199*	*10.967*	*1.139*
	Nbreast	*1.325*	*1.127*	*0.036*	*1.828*	*1.890*
12	*breast tumor*	*10.508*	*9.931*	*0.266*	*13.456*	*1.474*
	axillary node	*6.016*	*4.151*	*0.173*	*6.214*	*0.588*
	Nbreast	*2.164*	*1.437*	*0.052*	*0.441*	*0.191*
13	*breast tumor*	*7.820*	*7.067*	*0.305*	*15.972*	*1.490*
	Nbreast	*2.256*	*2.215*	*0.089*	*3.939*	*0.451*
14	*axillary node*	*7.130*	*7.874*	*0.183*	*11.547*	*1.326*
	Muscle	*2.258*	*1.651*	*0.051*	*3.816*	*0.381*
15	*breast tumor*	*7.876*	*7.782*	*0.316*	*8.886*	*1.246*
	Nbreast	*2.331*	*2.260*	*0.087*	*3.199*	*0.338*
16	*axillary node*	*10.210*	*9.818*	*0.403*	*12.666*	*1.335*
	Lung	*10.035*	*2.868*	*0.091*	*2.867*	*0.318*
17	*cervical node*	*7.668*	*7.328*	*0.307*	*7.882*	*1.015*
	axillary node	*4.939*	*6.182*	*0.234*	*4.115*	*0.751*
	Muscle	*2.556*	*2.340*	*0.103*	*2.901*	*0.313*
18	*breast tumor*	*7.186*	*5.728*	*0.243*	*5.409*	*0.635*
	Nbreast	*1.442*	*0.831*	*0.045*	*1.015*	*0.090*
19	*breast tumor*	*8.234*	*8.1067*	*0.3196*	*17.97*	*1.973*
	Nbreast	*0.638*	*0.816*	*0.0357*	*2.717*	*0.192*
20	*Lung met 1*	*8.595*	*7.589*	*0.345*	*n/a*	*n/a*
	Lung met 2	*7.379*	*6.451*	*0.311*	*n/a*	*n/a*
	Lung	*3.406*	*2.319*	*0.121*	*n/a*	*n/a*
21	*lymph node*	*11.053*	*10.430*	*0.395*	*15.074*	*1.615*
	Lung	*3.998*	*3.567*	*0.152*	*5.262*	*0.546*