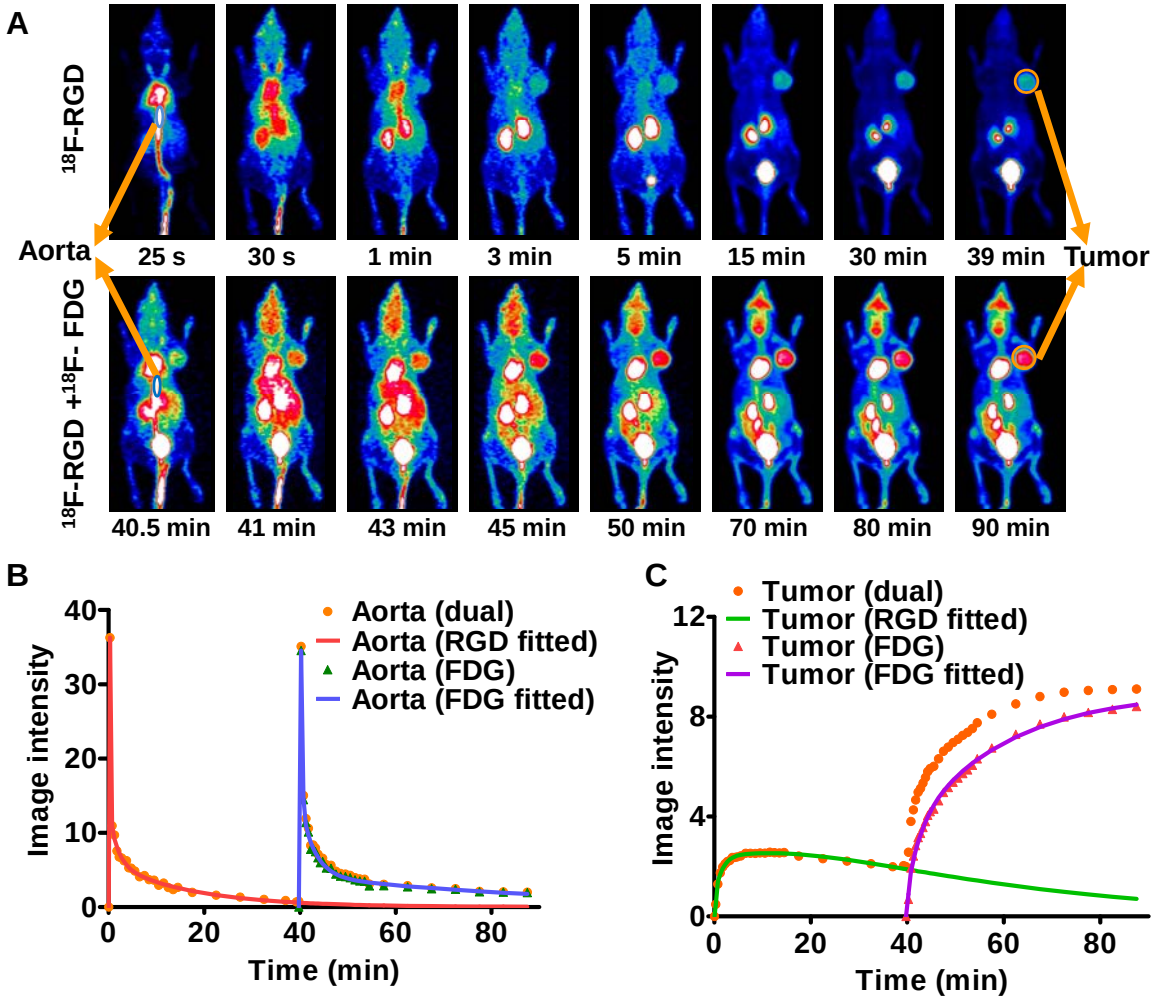
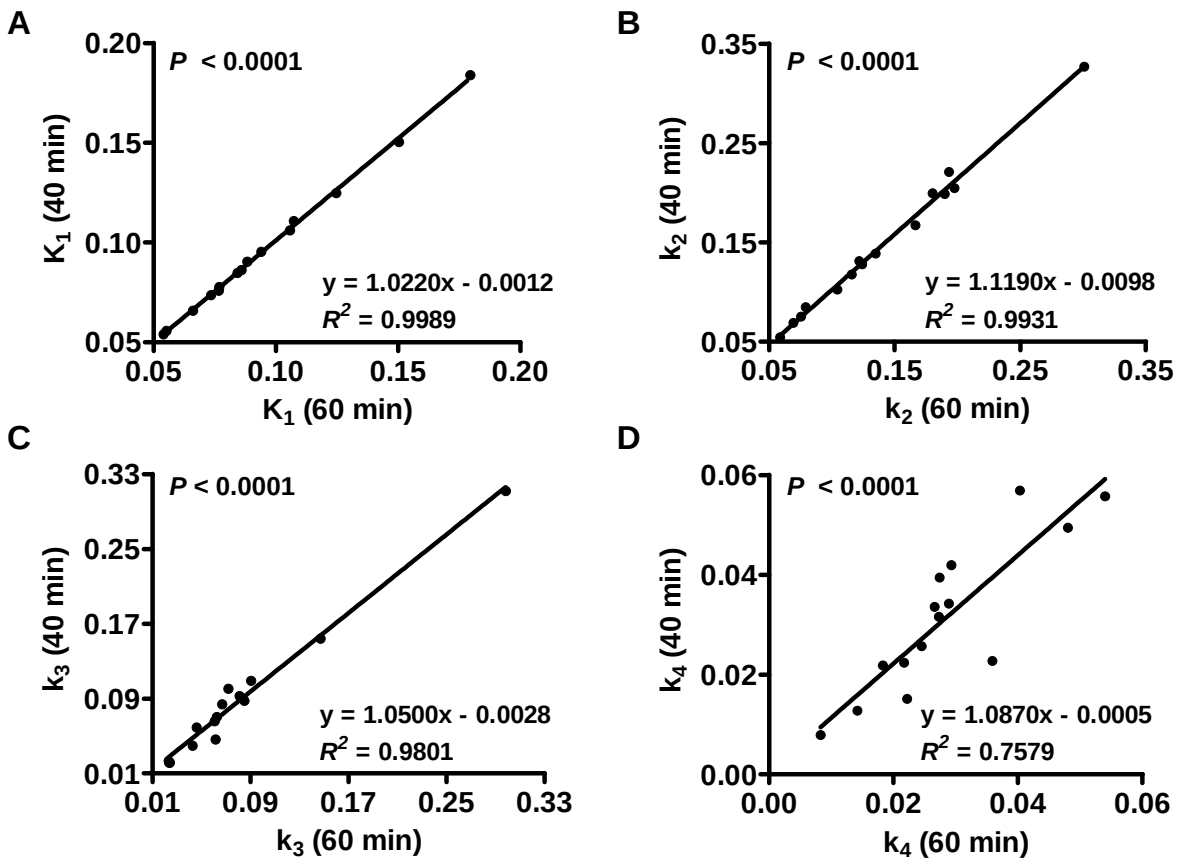
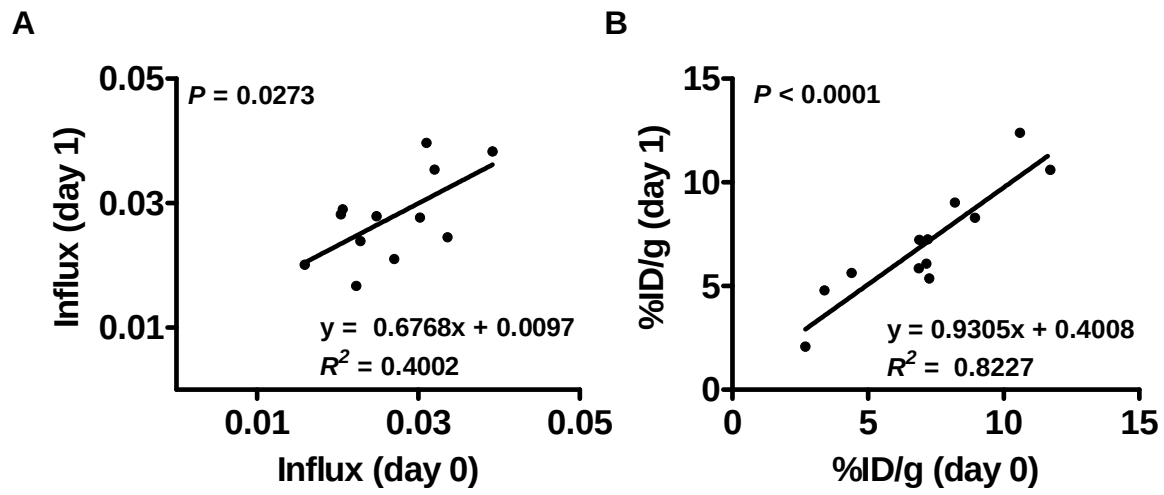


Supplemental Figure 1. (A) Representative ^{18}F-Alfatide II and ^{18}F-FDG dual tracer dynamic 2D projected image serials with U87MG tumor bearing mice. The ROI was drawn over abdominal aorta and tumor region to extract the input function and tumor time activity curve (TAC). (B) Representative dual tracer input function and the separated input functions for ^{18}F-Alfatide and ^{18}F-FDG. The separated input function was fitted by a tri-exponential function. (C) Representative dual tracer tumor TAC and the separated tumor TACs for ^{18}F-Alfatide II and ^{18}F-FDG. The separated tumor TACs were fitted with reversible three-compartment modeling for ^{18}F-Alfatide and irreversible three-compartment modeling for ^{18}F-FDG.



Supplemental Figure 2. The correlation between dynamic parameters calculated from 60min and 40min ^{18}F-Alfatide II TACs: A, K_1; B, k_2; C, k_3; D, k_4. The linear regression equation, Pearson's correlation coefficient R^2 and the P value of linear regression F test are shown. $R^2 >$ 0.98 for K_1-k_3 and $R^2 = 0.76$ for k_4 indicated very well correlation. All P values were less than 0.0001, presenting the significant linearity for all the parameters linear regression.



Supplemental Figure 3. The correlation of (A) ^{18}F-FDG tumor influx rate and (B) tumor uptake between day 0 and day 1 in ^{18}F-FDG single tracer imaging. The linear regression equation, Pearson's correlation coefficient R^2 and the P value of linear regression F test are shown. Significant linearity between day 0 and day 1 parameters were found for both tumor influx and tumor uptake ($P < 0.05$).