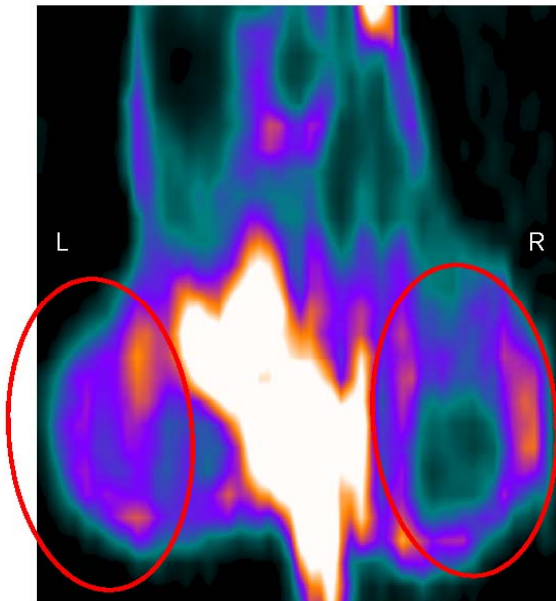


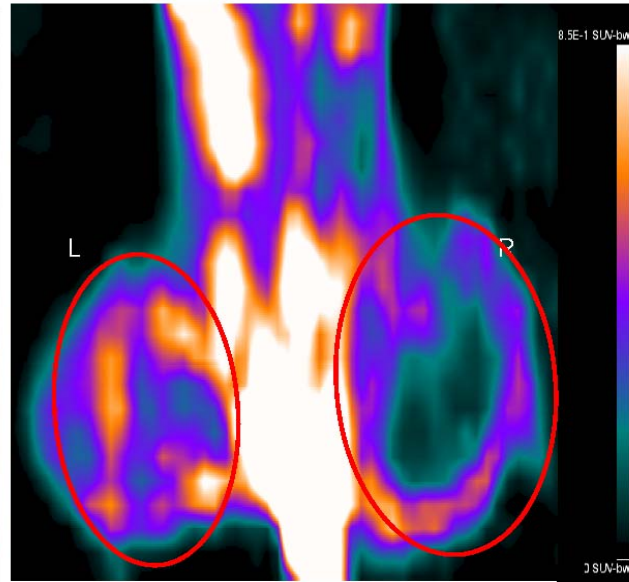
Mouse 2 Coronal PET-1

Day-1 PET under fed status



SUVmean = 0.37
SUVmax = 0.75
Blood glucose = 71mg/dL

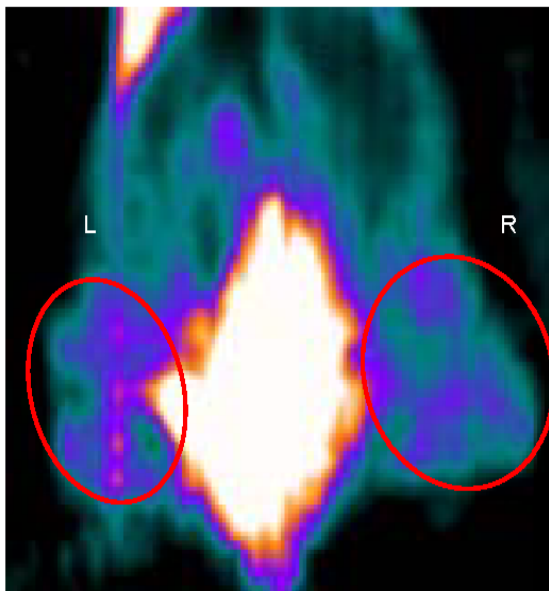
Day -2 PET under fasted status



SUVmean = 0.33
SUVmax = 0.80
Blood glucose = 29mg/dL

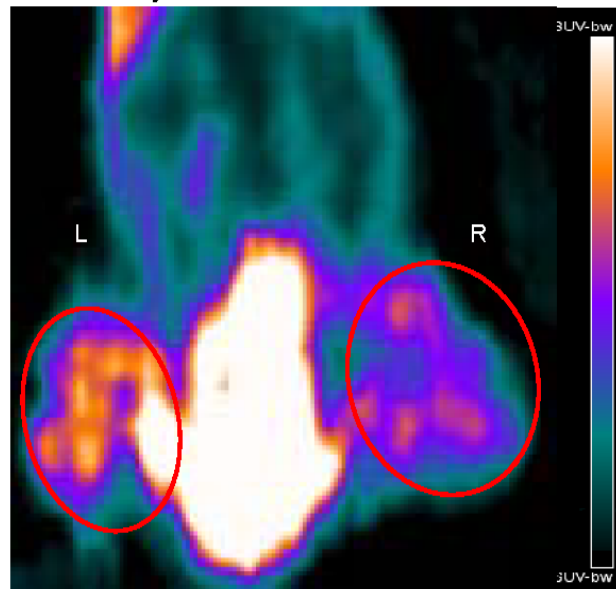
Mouse 4 Coronal PET

Day-1 PET under fed status



SUVmean = 0.46 SUVmean = 0.41
SUVmax = 0.80 SUVmax = 0.71
Blood glucose = 118mg/dL

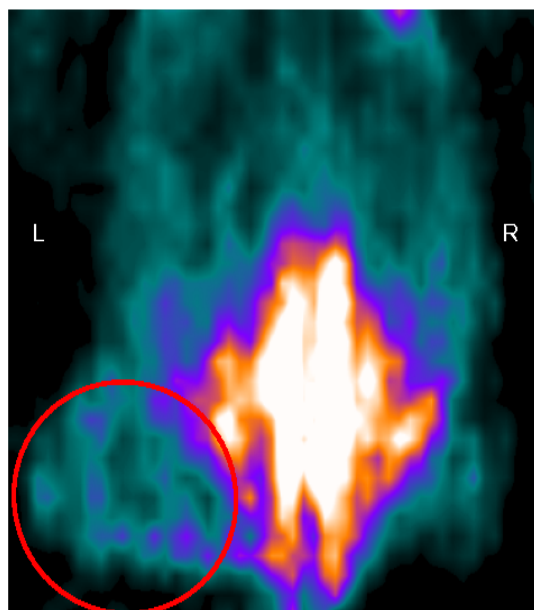
Day -2 PET under fasted status



SUVmean = 0.66 SUVmean = 0.59
SUVmax = 1.14 SUVmax = 1.01
Blood glucose = 85mg/dL

Mouse 5 Coronal PET

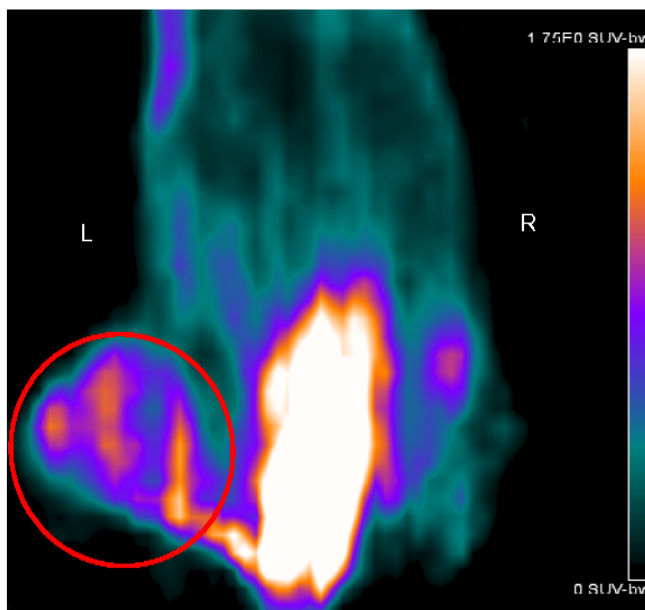
Day-1 PET under fed status



SUVmean=0.38
SUVmax=0.89

Blood glucose =115mg/dL

Day -2 PET under fasted status

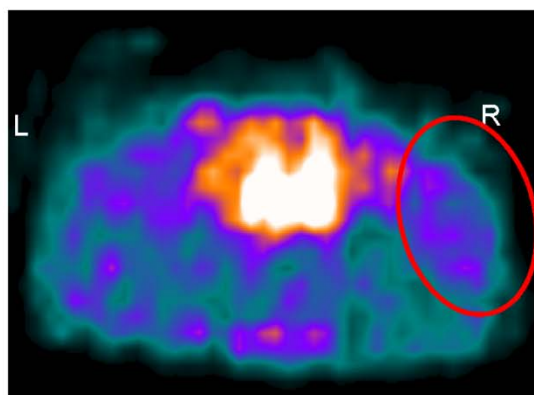


SUVmean=0.83
SUVmax=1.72

Blood glucose =126mg/dL

Mouse 5 Transverse PET

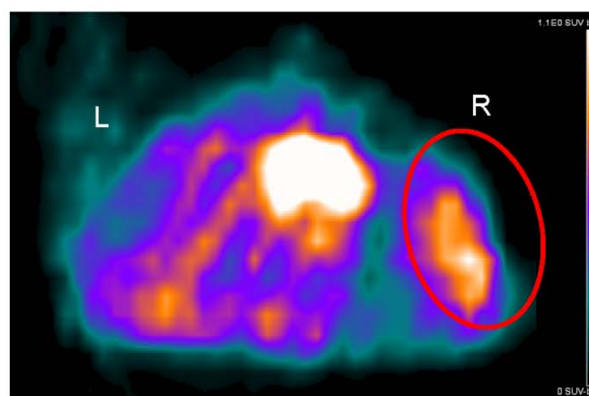
Day-1 PET under fed status



SUVmean=0.73
SUVmax=1.89

Blood glucose =115mg/dL

Day -2 PET under fasted status



SUVmean=0.62
SUVmax=1.11

Blood glucose =126mg/dL

Supplemental Figure 1

A. Coronal ^{18}F -FDG PET sections of A549 xenograft bearing mouse-2, in fed and fasted status.

Tumors on both flanks are circled. Apparent differences in intratumoral spatial distribution of ^{18}F -FDG was visualized.

B. Coronal ^{18}F -FDG PET sections of A549 xenograft bearing mouse-4, in fed and fasted status.

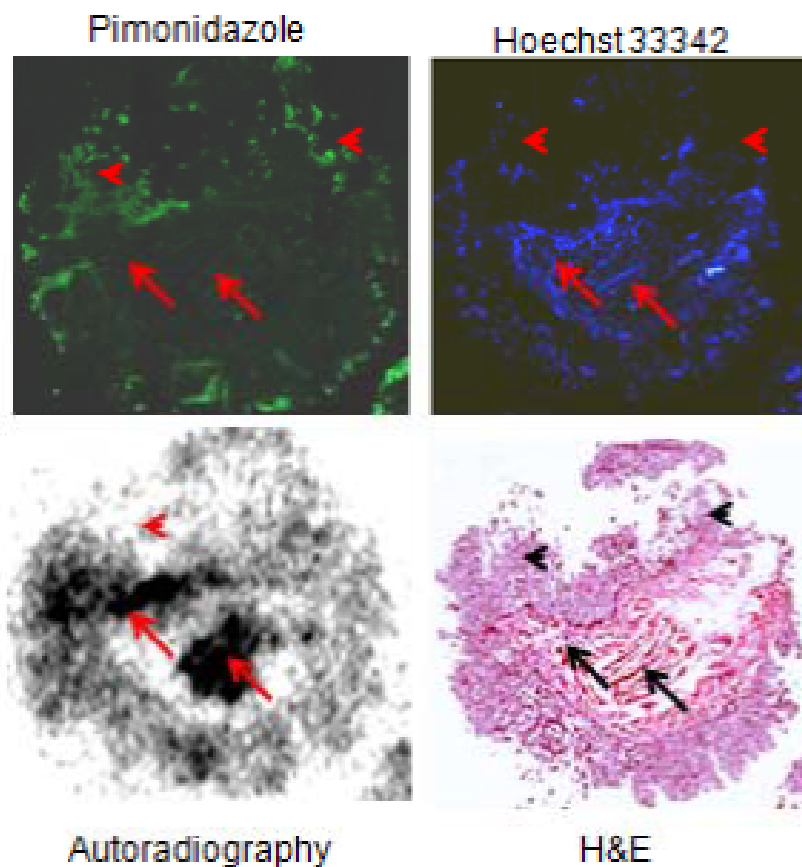
Tumors on both flanks are circled. Apparent differences in intratumoral spatial distribution of ^{18}F -FDG were visualized.

C. Coronal ^{18}F -FDG PET sections of A549 xenograft bearing mouse-5, in fed and fasted status.

Tumors on left flanks are circled. Apparent differences in intratumoral spatial distribution of ^{18}F -FDG were visualized.

D. Transverse ^{18}F -FDG PET sections of A549 xenograft bearing mouse-5, in fed and fasted

status. Tumors on the right flanks are circled. Apparent differences in intratumoral spatial distribution of ^{18}F -FDG were visualized.



Supplemental Figure 2

Comparison of the intratumoral distribution of ^{18}F -FDG by autoradiography with immunohistochemical/histological staining visualization of microenvironment components in an individual fed animal bearing A549 tumor, ^{18}F -FDG accumulated predominantly in noncancerous stroma within the tumor (arrow) and Hoechst 33342 staining indicated good blood perfusion. There was little ^{18}F -FDG uptake in viable cancer cells regardless of whether they stained positively or negatively for the hypoxic marker pimonidazole (arrowhead).