Supplementary Figure Legends

Supplemental Figure 1: Graph showing no effect of BAY 87-2243 on weight of nude mice carrying either H460 or PC3 tumor xenografts. Similar results for mice with 786-O xenografts (data not shown).

Supplemental Figure 2: Dose-dependent effect of BAY 87-243 on (A) ^{18}F-FAZA uptake and (B) tumor volume for PC3 xenografts of nude, murine models.

Supplemental Figure 3: Graph derived from the scientific literature (24) that shows a linear correlation between ^{18}F-FPP(RGD)$_2$ uptake and tumor volume in HCT116 human colon cancer xenografts.

Supplemental Figure 4: Chemical Structure of ^{18}F-fluoroazomycin arabinoside (^{18}F-FAZA). Nucleoside analog contains nitroimidazole ring in α-position of arabinose ring.

Supplemental Figure 5: Bar graphs showing effect of BAY 87-2243 on RT-PCR expression profiles for (A) SLC16A, (B) ITGB1, (C) IGF-2 and (D) TK-1

Supplemental Figure 6: Bar graphs showing effect of BAY 87-2243 on RT-PCR expression profiles for (A) PDK-1, (B) GLUT-1, (C) GLUT-3 and (D) HK-2

Supplemental Figure 7: Dose-dependent effect of BAY 87-243 (1 and 9 mg/kg) on (A) ^{18}F-FAZA uptake and (B) tumor volume for H460 xenografts of nude, murine models. For (A), *- $p<0.001$ for 2-way ANOVA of vehicle vs. BAY 87-2243, n=6 tumors and for (B) *-$P<0.01$ for 2-way ANOVA of vehicle vs. BAY 87-2243, n=6 tumors.