Supplemental data

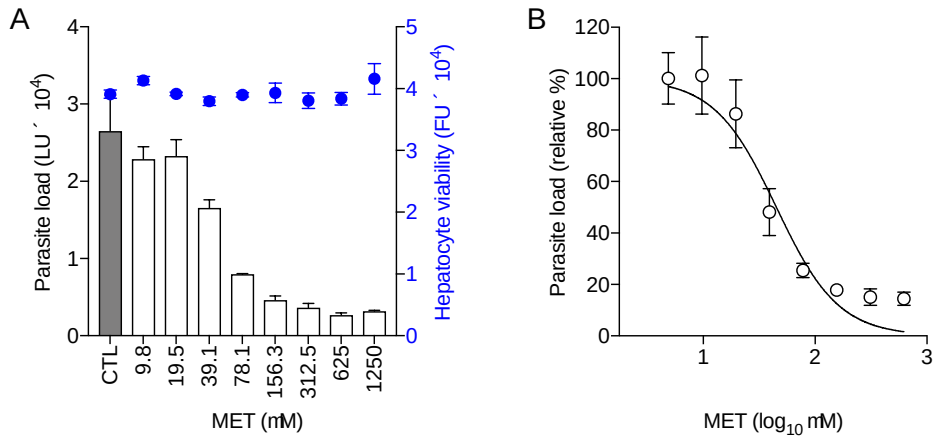

Figure S1. Metformin effect on *P. berghei* infection of primary mouse hepatocytes.

A. Monolayers of primary mouse hepatocytes were infected with 8 000 luciferase-expressing *P. berghei* sporozoites and total parasite load was measured via luminescence (LU, luminescence units) at 48h post infection (gray/white bars on left y-axis, mean ± SD). Hepatocyte viability measured was determined at 48h and is plotted as mean fluorescence ± SD (FU, fluorescence units; blue dots on right y-axis). Shown is one representative of 4 independent experiments. **B.** Dose-response curve to metformin (MET) with a calculated IC50 from 4 independent experiments is 45.17 ± 0.05 µM. Data normalized to non-treated control (CTL).

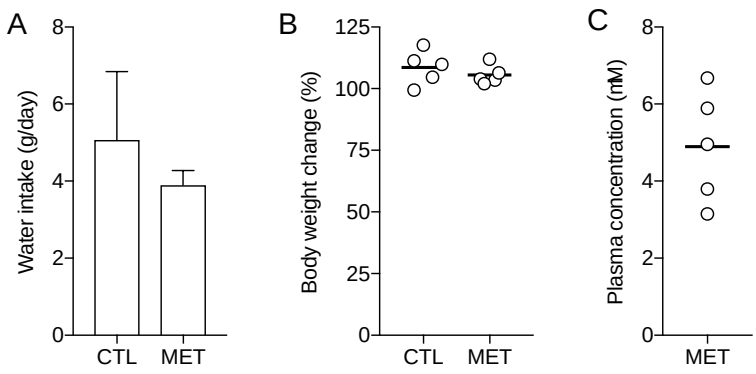

Figure S2. Metformin treatment in mice.

Time-average water intake (**A**), body weight change (**B**) and plasma levels of metformin (**C**) in C57BL/6 naïve mice after treatment for one week. Metformin was provided ad libitum in the drinking water at 2.5 mg/ml, delivering 500 mg/Kg/day. The drinking water with metformin was freshly prepared every 2-3 days. Bars in (A) show the mean ± SD of daily-average drinking water in one representative of 5 independent experiments. The dots in the scatter plots represent one mouse and the horizontal bars show the mean. CTL, non-treated control; MET, metformin.

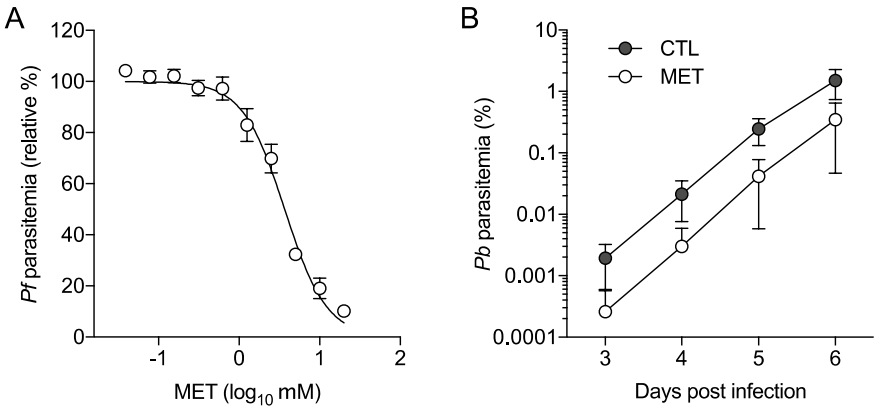

Figure S3. Metformin effect on *Plasmodium* asexual erythrocytic stages.

A. Growth inhibition of *P. falciparum* blood stages in the presence of metformin for 48h. Parasitemia was measured by flow cytometry after SYBR green staining of parasite DNA. Bars show the mean ± SEM of 3 independent experiments. The calculated IC50 is 3.7 ± 1.1 mM. **B.** Parasitemia in C57BL/6 mice treated with metformin (MET, 500mg/Kg/day) and infected with 500 GFP-expressing *P. berghei* sporozoites as in **Figure 1E**. Parasitemia was measured daily by flow cytometry. Bars show the mean ± SD of 4 mice per group, in one representative of 2 independent experiments. Daily parasite multiplication rates on days 4, 5 and 6 are as follows: CTL, 10.9, 14.7, 5.9; and MET, 10.4, 14.8, 8.2. No significant difference was observed between the two experimental groups (two-way ANOVA test). Note that the asexual erythrocyte cycle takes 24h and 48h in *P. berghei* and *P. falciparum*, respectively.