Table S5: Blood and liver stage screening information relating to genes involved in the FASII, FAE, and amino sugar pathways, related to Figures 5, 6 and 7.

	T	Abbreviated	Screen phenotype statement		Liver stage screen information				
Participating genes	Enzyme name	name (pathway)	Blood phenotype	Liver phenotype	Log2-fold change	Standard deviation	Statistical significance	Single knockout validation	
PBANKA_0308200	apicoplast beta-ketoacyl-acyl carrier protein synthase III precursor, putative	FabH (FASII)	Slow	> 100-fold reduction	-9.61	1.02	reduced	Figures 5 and S4	
PBANKA_0923800	pyruvate dehydrogenase E1 component subunit alpha	PDH E1 alpha (FASII)	Essential	no info				(Deschermeier et al., 2012)	
PBANKA_1310100	pyruvate dehydrogenase E1 component subunit beta	PDH E1 beta (FASII)	no info	no info					
PBANKA_0505000	dihydrolipoamide acyltransferase, putative	PDH E2 (FASII)	Dispensable	> 100-fold reduction	-8.95	0.97	reduced	Figures 5 and S4	
PBANKA_0520000	pyruvate kinase 2, putative	PK (FASII)	Essential	no info					
PBANKA_0707000	lipoate-protein ligase B	LipB (FASII)	Dispensable	> 100-fold reduction	-10.86	0.68	reduced	(Falkard et al., 2013)	
PBANKA_0823800	3-oxoacyl-[acyl-carrier-protein] reductase, putative	FabG (FASII)	Dispensable	> 100-fold reduction	-9.23	0.99	reduced	Figures 5 and S4	
PBANKA_1125100	3-oxoacyl-acyl-carrier protein synthase, putative	FabB/F (FASII)	Dispensable	2-100-fold reduction	-5.51	0.41	reduced	(Vaughan et al., 2009), P. yoelii	
PBANKA_1229800	enoyl-acyl carrier reductase	Fabl (FASII)	no info	no info				(Yu et al., 2008)	
PBANKA_1332800	biotin carboxylase subunit of acetyl CoA carboxylase, putative	ACC (FASII)	Essential	no info					
PBANKA_1338200	beta-hydroxyacyl-ACP dehydratase, putative	FabZ (FASII)	Dispensable	2-100-fold reduction	-4.68	0.23	reduced	(Vaughan et al., 2009), P. yoelii	
PBANKA_1357500	lipoyl synthase	LipA (FASII)	Dispensable	2-100-fold reduction	-5.09	0.35	reduced	Figures 5 and S4	
PBANKA_1410500	malonyl CoA-acyl carrier protein transacylase precursor, putative	FabD (FASII)	Dispensable	> 100-fold reduction	-11.18	0.57	reduced	Figures 5 and S4	
PBANKA_0511000	biotinacetyl-CoA-carboxylase, putative	HLCS (FASII)	Dispensable	> 100-fold reduction	-8.17	0.63	reduced	(Dellibovi-Ragheb et al., 2018) and Fig. 5, Fig. S4	
PBANKA_0104700	long chain polyunsaturated fatty acid elongation enzyme, putative	ELO-B (FAE)	Dispensable	not reduced	-0.57	1.02	no power		
PBANKA_0204300	fatty acid elongation protein, GNS1/SUR4 family, putative	ELO-C (FAE)	no info	no info					
PBANKA_0522400	steroid dehydrogenase, putative	KCR (FAE)	Dispensable*	> 100-fold reduction	-9.70	0.81	reduced*	Figures 6 and S5	
PBANKA_0820900	long chain fatty acid elongation enzyme, putative	ELO-A (FAE)	Dispensable	> 100-fold reduction	-10.45	0.72	reduced	Figures 6 and S5	

PBANKA_0912700	3-oxo-5-alpha-steroid 4- dehydrogenase, putative	ECR (FAE)	Essential	no info				
PBANKA_1110700	stearoyl-CoA desaturase, putative	SCD (FAE)	no info	no info				
PBANKA_1143400	NADH-cytochrome b5 reductase, putative	CBR (FAE)	Dispensable	> 100-fold reduction	-8.90	0.92	reduced	Figures 6 and S5
PBANKA_1346500	protein tyrosine phosphatase- like protein	DEH (FAE)	Dispensable	> 100-fold reduction	-10.34	0.65	reduced	(Guttery et al., 2014)
PBANKA_0501700	phosphomannomutase, putative	PMM (AS)	Dispensable	2-100-fold reduction	-2.58	0.19	reduced	Figures 7 and S6
PBANKA_0509300	glutaminefructose-6- phosphate aminotransferase [isomerizing], putative	GFPT (AS)	Slow	not reduced	-1.41	1.32	no power	Mosquito stage arrest; not bypassed (Figure 7A)
PBANKA_0918200	phosphoacetylglucosamine mutase, putative	PGM3 (AS)	Slow	> 100-fold reduction	-7.77	0.57	reduced	Mosquito stage arrest; not bypassed (Figure 7A)
PBANKA_1008800	glucose-6-phosphate isomerase, putative	GPI (AS)	Essential	no info				
PBANKA_1022300	mannose-1-phosphate guanyltransferase, putative	GMPP (AS)	Slow	not reduced	3.93	0.45	not reduced	
PBANKA_1122900	hexokinase, putative	HK (AS)	Essential	no info				
PBANKA_1127600	N-acetyltransferase, GNAT family, putative	GNPNAT / GNA1 (AS)	no info	no info				
PBANKA_1210900	phosphoglucomutase, putative	PGM (AS)	Dispensable	2-100-fold reduction	-2.04	0.32	reduced	
PBANKA_1212400	GDP-L-fucose synthase, putative	TSTA (AS)	Dispensable	not reduced	0.08	0.18	not reduced	
PBANKA_1228400	mannose-6-phosphate isomerase, putative	MPI (AS)	Slow	not reduced	1.12	0.41	not reduced	
PBANKA_1232300	UTPglucose-1-phosphate uridylyltransferase, putative	USP (AS)	Dispensable	not reduced	0.37	0.73	not reduced	Figures 7 and S6
PBANKA_1343800	transcriptional regulatory protein sir2a	GNPDA (AS)	Dispensable	not reduced	0.54	0.47	no power	
PBANKA_1356600	UDP-N-acetylglucosamine pyrophosphorylase, putative	UAP (AS)	Slow	> 100-fold reduction	-8.11	1.36	reduced	Figures 7 and S6
PBANKA_1423700	GDP-mannose 4,6-dehydratase, putative	GMDS (AS)	Dispensable	not reduced	-0.27	0.17	not reduced	
PBANKA_0715500	phosphoglucomutase-2	PGM (AS)	Slow	not reduced	0.08	0.67	no power	

Note on *: Having established that the Δ KCR knock-out mutant does not show a significant blood stage fitness defect (Figure S5A), the SG-B2 log2-fold change value shown here is that prior to blood stage fitness correction and thus not factoring in the "essential" blood stage phenotype determined by Bushell *et al.*, 2017.