Figure S1: Percent of gametocytes present before membrane feeding. Smears were made from each FBS0701 treated culture and gametocytes were counted by light microscopy after staining with Giemsa. Error bars represent the standard error of the mean.

Table S1: Effect of incubation of *P. falciparum* mature gametocytes with FBS on mosquito stage development.

Experiment	Treatment	Period (hrs)	[μM]	N[a]	Prevalence[b]	% reduction of prevalence[c]	Mean oocyst # (Range)	Median	% inhibition (median)[d]	P-value[e]
1	Blank	24	0	35	97	-	91 (0-302)	91	-	-
	FBS	24	12.5	29	100	0	85 (23-204)	81	11	NS
	FBS	24	25	40	88	10	18 (0-48)	18	81	<0.001
	Blank	48	0	35	94	-	42 (0-129)	32	-	-
	FBS	48	12.5	32	88	7	16 (0-50)	17	48	<0.001
	FBS	48	25	28	11	89	0.11 (0-1)	0	100	<0.001
	Blank	72	0	30	63	-	35 (0-116)	34	-	-
	FBS	72	12.5	27	15	77	0.19 (0-2)	0	100	<0.001
	FBS	72	25	18	0	100	0 (0)	0	100	<0.001
2	Blank	24	0	45	93	-	35 (0-116)	18	-	-
	FBS	24	25	48	52	44	1 (0-9)	1	94	<0.001
	FBS	24	50	45	27	71	1 (0-9)	0	100	<0.001
	Blank	48	0	40	88	-	32 (0-107)	16	-	-
	FBS	48	25	41	17	81	0.17 (0-1)	0	100	<0.001
	FBS	48	50	45	7	92	0.07 (0-1)	0	100	<0.001
	Blank	72	0	39	62	-	10 (0-56)	2	-	-
	FBS	72	25	42	5	92	0.07 (0-2)	0	100	<0.001
	FBS	72	50	37	5	91	0.05 (0-1)	0	100	<0.001
3	Blank	48	0	39	80	-	48 (0-172)	35	-	-
	FBS	48	12.5	40	83	0	23 (0-60)	23	34	<0.001
	FBS	48	25	49	8	90	0.14 (0-4)	0	100	<0.001
	Blank	72	0	38	76	-	29 (0-104)	24	-	-
	FBS	72	12.5	43	44	42	1 (0-10)	0	100	<0.001
4	Blank	24	0	29	62	-	3 (0-16)	1	-	-
	FBS	24	25	32	9	85	0.13 (0-2)	0	100	<0.001
	FBS	24	50	28	11	83	0.11 (0-1)	0	100	<0.001

[a] N = number of mosquitoes

[b] Prevalence = Percentage of infected mosquitoes

[c] Percentage reduction of prevalence = ([prevalence for control mosquitoes - prevalence for experimental mosquitoes] / prevalencefor control mosquitoes) X 100

[d] Percentage inhibition = ([median oocyst # for control mosquitoes - median oocyst # for experimental mosquitoes] / median oocyst # for control mosquitoes) X 100

[e] Statistical significance was determined by Mann Whitney U Test, a = 0.05. NS = not significant.

Table S2: Effect of incubation of *P. falciparum* mature gametocytes with DFO on mosquito stage development.

Experiment	Treatment	Period (hrs)	[μM]	N[a]	Prevalence[b]	% reduction of prevalence[c]	Mean oocyst # (Range)	Median	% inhibition (median)[d]	P-value[e]
1	Blank	24	0	52	75	-	25 (0-115)	10	-	-
	DFO	24	12.5	45	71	5	18 (0-90)	3	68	NS
	DFO	24	25	38	78	0	18 (0-93)	3	74	NS
	Blank	48	0	43	54	-	24 (0-124)	1	-	-
	DFO	48	12.5	39	62	0	23 (0-89)	1	0	NS
	DFO	48	25	50	42	22	13 (0-98)	0	100	NS
	Blank	72	0	43	56	-	26 (0-112)	1	-	-
	DFO	72	12.5	45	56	0	21 (0-122)	1	0	NS
	DFO	72	25	39	49	13	11 (0-45)	0	100	NS
2	Blank	24	0	37	78	-	14 (0-66)	7	-	-
	DFO	24	12.5	45	87	0	9 (0-62)	5	29	NS
	DFO	24	25	45	83	0	14 (0-34)	11	0	NS
	Blank	48	0	50	92	-	8 (0-31)	6	-	-
	DFO	48	12.5	46	74	20	8 (0-37)	5	17	NS
	DFO	48	25	32	66	29	3 (0-18)	2	67	< 0.05
	Blank	72	0	32	81	-	9 (0-31)	4	-	-
	DFO	72	12.5	37	60	27	3 (0-16)	1	75	< 0.001
	DFO	72	25	42	28	66	0.72 (0-6)	0	100	< 0.001
3	Blank	24	0	22	91	-	19 (0-90)	11	-	-
	DFO	24	12.5	23	96	0	24 (0-62)	21	0	NS
	DFO	24	25	23	83	9	25 (0-97)	16	0	NS
	Blank	48	0	27	85	-	16 (0-53)	11	-	-
	DFO	48	12.5	26	73	14	16 (0-61)	14	0	NS
	DFO	48	25	24	75	12	14 (0-55)	6	45	NS

[a] N = number of mosquitoes

[b] Prevalence = Percentage of infected mosquitoes

[c] Percentage reduction of prevalence = ([prevalence for control mosquitoes - prevalence for experimental mosquitoes] / prevalencefor control mosquitoes) X 100

[d] Percentage inhibition = ([median oocyst # for control mosquitoes - median oocyst # for experimental mosquitoes] / median oocyst # for control mosquitoes) X 100

[e] Statistical significance was determined by Mann Whitney U Test, a = 0.05. NS = not significant.

Table S3: Effect of incubation of *P. falciparum* mature gametocytes with FBS and Fe on mosquito stage development.

Experiment	Treatment	Period (hrs)	[μM]	N[a]	Prevalence[b]	% reduction of prevalence[c]	Mean oocyst # (Range)	Median	% inhibition (median)[d]	P-value[e]
1	Blank	24	0/0	41	88	-	35 (0-127)	39	-	-
	FBS/Fe	24	25/12.5	37	97	0	58 (0-115)	55	0	< 0.01
	FBS/Fe	24	25/25	48	97	0	44 (0-131)	43	0	< 0.05
	FBS/Fe	24	25/50	55	98	0	40 (0-102)	43	0	NS
	Fe	24	0/12.5	40	98	0	38 (0-120)	30	24	NS
	Fe	24	0/25	39	92	0	21 (0-65)	17	56	NS
	Fe	24	0/50	40	85	3	18 (0-70)	12	69	NS
2	Blank	24	0/0	67	93	-	14 (0-36)	14	-	-
	FBS	24	25/0	57	12	87	0.16 (0-3)	0	99	< 0.001
	FBS/Fe	24	25/12.5	54	89	4	17 (0-53)	16	0	NS
	FBS/Fe	24	25/25	61	95	0	26 (0-68)	26	0	< 0.001
	FBS/Fe	24	25/50	65	97	0	19 (0-92)	16	0	NS
	Fe	24	0/12.5	52	85	9	11 (0-49)	8	46	NS
	Fe	24	0/25	39	97	0	12 (0-28)	11	21	NS
	Fe	24	0/50	42	93	0	12 (0-41)	9	36	NS
3	Blank	24	0/0	43	88	-	55 (0-197)	48	-	-
	FBS	24	25/0	39	74	16	9 (0-29)	8	83	< 0.01
	FBS/Fe	24	25/12.5	42	83	6	56 (0-241)	41	0	NS
	FBS/Fe	24	25/25	43	86	3	65 (0-283)	51	0	NS
	FBS/Fe	24	25/50	39	80	10	72 (0-227)	60	0	NS
	Fe	24	0/12.5	33	85	4	24 (0-118)	16	67	NS
	Fe	24	0/25	39	85	4	31 (0-161)	22	54	NS
	Fe	24	0/50	33	85	4	46 (0-176)	40	17	NS

[a] N = number of mosquitoes

[b] Prevalence = Percentage of infected mosquitoes

[c] Percentage reduction of prevalence = ([prevalence for control mosquitoes - prevalence for experimental mosquitoes] / prevalencefor control mosquitoes) X 100

[d] Percentage inhibition = ([median oocyst # for control mosquitoes - median oocyst # for experimental mosquitoes] / median oocyst # for control mosquitoes) X 100

[e] Statistical significance was determined by Mann Whitney U Test, a = 0.05. NS = not significant.

Table S4: Effect of FBS on *P. falciparum* sexual reproduction inside the mosquito midgut.

Experiment	Treatment	[µM]	N[a]	Prevalence[b]	reduction of prevalence	Mean oocyst # (Range)	Median	Inhibition (median)	P-value[e]
1	Blank	0	38	92.1	-	35 (0-152)	18	-	-
	FBS	3.38	37	100	0	31 (0-116)	23	0	NS
	FBS	6.75	39	87.2	5	25 (0-139)	14	22	NS
	FBS	12.5	42	97.6	0	27 (0-149)	19	0	NS
	FBS	25	44	93.2	0	27 (0-117)	19	0	NS
	FBS	50	43	76.7	17	17 (0-69)	7	61	NS
	FBS	100	37	94.6	0	22 (0-116)	14	22	NS
2	Blank	0	13	100	-	73 (8-207)	63	-	-
	FBS	12.5	10	100	0	88 (25-192)	92	0	NS
	FBS	25	9	100	0	54 (11-95)	53	16	NS
	FBS	50	25	92	8	42 (0-90)	43	32	NS
	FBS	100	25	96	4	47 (0-95)	37	41	NS

[a] N = number of mosquitoes

[b] Prevalence = Percentage of infected mosquitoes

[c] Percentage reduction of prevalence = ([prevalence for control mosquitoes - prevalence for experimental mosquitoes] / prevalencefor control mosquitoes) X 100

[d] Percentage inhibition = ([median oocyst # for control mosquitoes - median oocyst # for experimental mosquitoes] / median oocyst # for control mosquitoes) X 100

[e] Statistical significance was determined by Mann Whitney U Test, a = 0.05. NS = not significant.