The following are supplemental materials and will be published online only

Supplemental Table S1: Parasite genotyping results by MSP2 analysis of bound MACS column fractions. For three strains in triplicate gametocyte infected blood was run over a new column and after column washing the next day uninfected blood was run. The experiment was performed in triplicate.

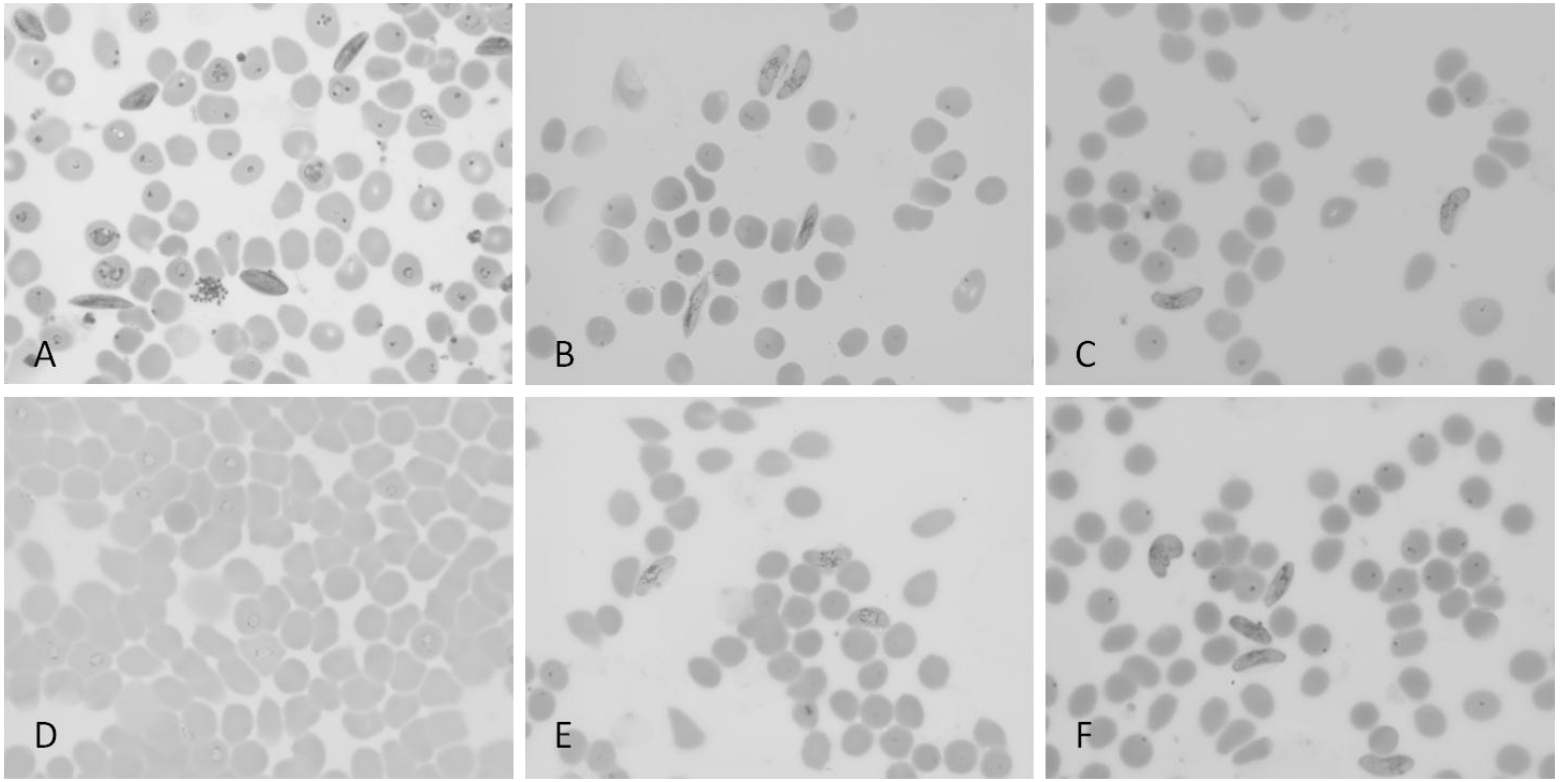
		Column concentration (par./µl)	**MSP2 Gel electrophoresis (pos + /neg -)**		**MSP2 capillary gel electrophoresis (fragment size in basepair)**
NF54 (A)	New column	10,000	A1	+	Positive 259 bp (3D7)
	Washed column	0	C1	-	Negative
NF54 (B)	New column	10,000	B1	+	Positive 259 bp (3D7)
	Washed column	0	D1	-	Negative
NF54 (C)	New column	10,000	E1	+	Positive 259 bp (3D7)
	Washed column	0	F1	-	Negative
NF135 (A)	New column	10,000	G1	+	Positive 338 bp (3D7)
	Washed column	0	H1	+	Positive 338 bp (3D7)
NF135 (B)	New column	10,000	A2	+	Positive 338 bp (3D7)
	Washed column	0	B2	-	Negative
NF135 (C)	New column	10,000	C2	+	Positive 338 bp (3D7)
	Washed column	0	D2	-	Negative
NF175 (A)	New column	10,000	E2	+	Positive 411 bp (FC27)
	Washed column	0	F2	-	Negative
NF175 (B)	New column	10,000	G2	+	Positive 411 bp (FC27)
	Washed column	0	H2	-	Negative
NF175 (C)	New column	10,000	A3	+	Positive 411 bp (FC27)
	Washed column	0	B3	-	Negative

Supplemental Table S2: MSP2 MACS bound column fraction results with three different parasite strains on the same column and overnight column washing in between

		Concentration (par./µl)	**MSP2 Gel electrophoresis (pos + /neg -)**		**MSP2 capillary gel electrophoresis (fragment size in basepair)**
NF54	New column	10,000	C3	+	Positive 259 bp (3D7)
NF135 A	Washed column	10,000	D3	+	Positive 338 bp (3D7)
NF175	Washed column	10,000	E3	+	Negative
NF54	New column	10,000	F3	+	Positive 259 bp (3D7)
NF135 B	Washed column	10,000	G3	+	Positive 338 bp (3D7)
NF175	Washed column	10,000	H3	+	Positive 411 bp (FC27)
NF54	New column	10,000	A4	+	Positive 259 bp (3D7)
NF135 C	Washed column	10,000	B4	+	Positive 338 bp (3D7)
NF175	Washed column	10,000	C4	+	Positive 411 bp (FC27)

Supplemental Figure S1: *P. falciparum* gametocyte stained blood smears of in vivo cultures

Giemsa's stained blood smears of *P. falciparum* in vivo cultures, light microscopy 1,000x magnification. Unsynchronized culture at day 16 with multiple parasites stages (A). NF54 gametocyte N-acetyl-glucosamine treated culture, day 14 (B) and day 16 (C). Ring stage culture after sorbitol treatment (D). Day 16 gametocyte N-acetyl-glucosamine treated cultures of NF135 (E) and NF175 (F).

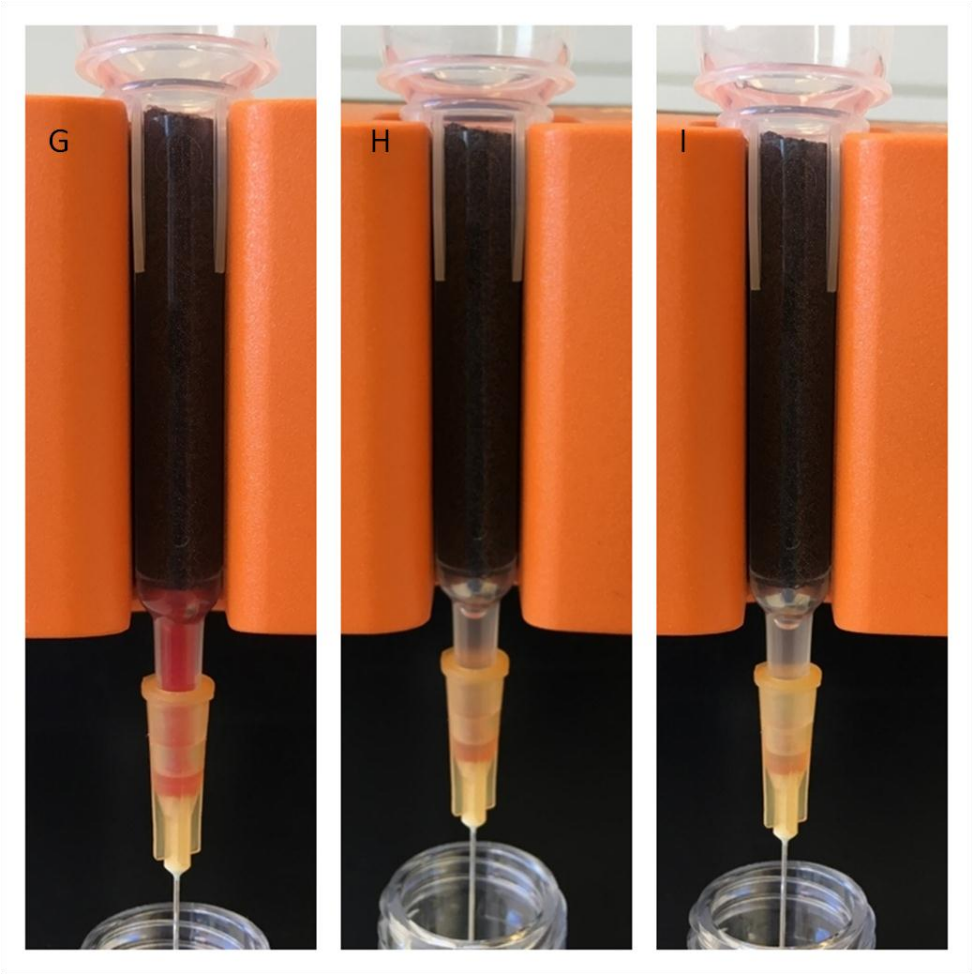


Supplemental Figure S2. MACS Column Procedure

A QuadroMACS separator (Miltenyi Biotec) with up to four LS columns was used, with a hypodermic needle attached to reduce the flow speed (A+B). Columns were hydrated with RPMI medium (C+D), accordingly peripheral infected or uninfected EDTA blood was added (E). After all material flowed through (F+G), columns were washed two times with RPMI medium to remove unbound red blood cells (H+I).


C
D
MACS
MULTI
STAND
Caution! Extremely strong magnetic fields!


E
MACS
MULTI
STAND
Caution! Extremely strong magnetic fields!
F
MACS
MULTI
STAND
Caution! Extremely strong magnetic fields!


G
H
I

Supplemental Figure S3. qRT-PCR standard curves

Standard qRT-PCR curves for detection of male gametocytes (PfMGET, texas red) and female gametocytes (CCp4, FAM) obtained using 10 fold dilutions of cultured gametocytes.