

Statistics of the samples

Age	Malaria patients			Patients with other infectious diseases (n= 28)		Healthy controls (n= 25)	
	Male	Female	no record	Male	Female	Male	Female
0-4	6	3	0	7	6	0	0
5-9	11	8	0	1	5	2	2
10-19	8	13	1	2	2	2	3
20-39	21	14	0	1	1	5	4
40-	15	10	0	2	1	5	2
no record	0	0	6	0	0	0	0

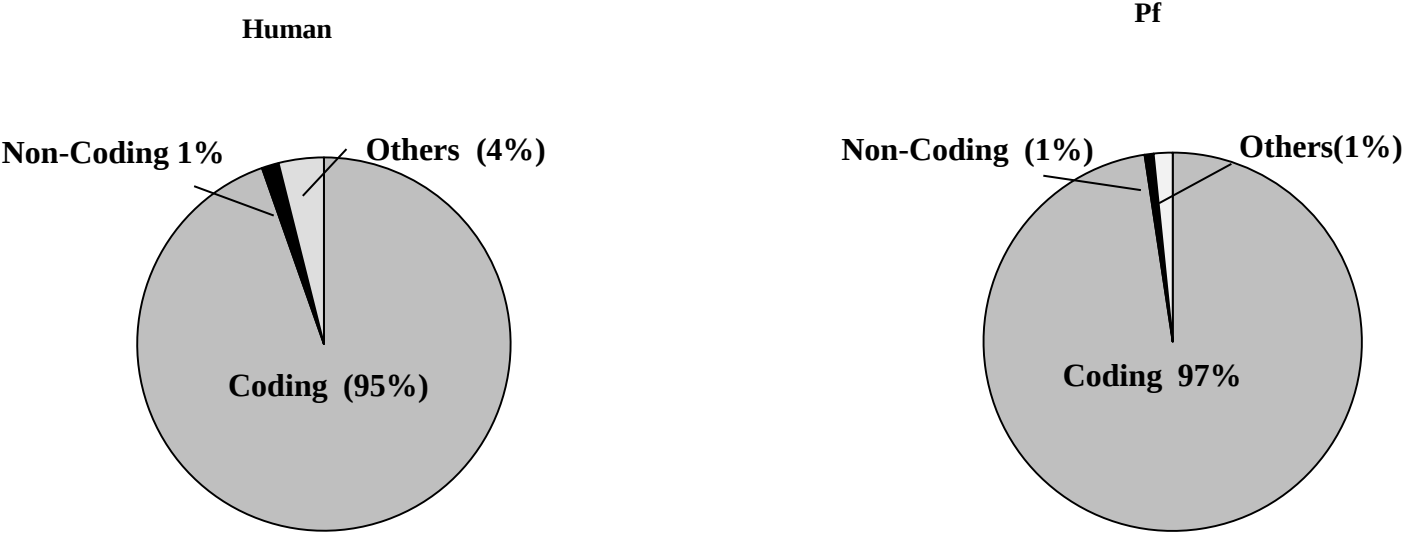
Sequence statistics of the healthy controls (n= 25)

Species	Sample number	Total mapped tag	Parasite tag frequency
Pf	25	594	0.0%
Human		421,417,916	

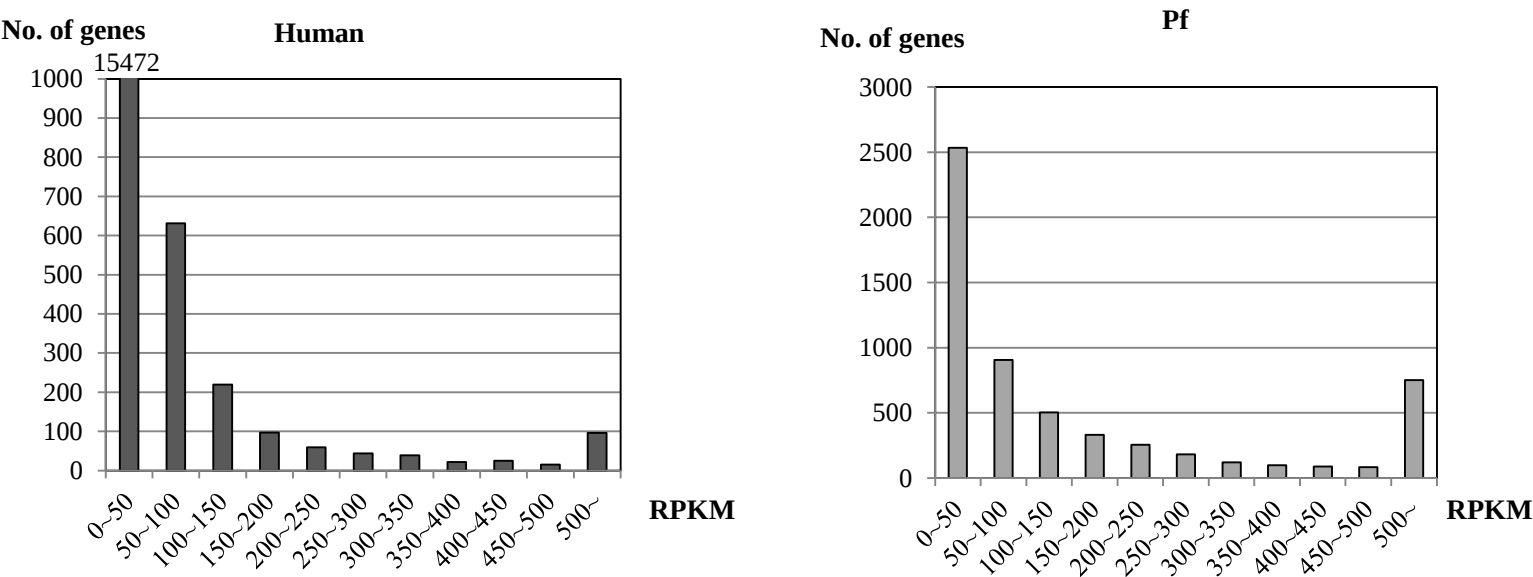
Sequence statistics of the patients with other infectious diseases (n= 28)

Species	Sample number	Total mapped tag	Parasite tag frequency
Pf	28	1,143	0.0%
Human		465,324,221	

A

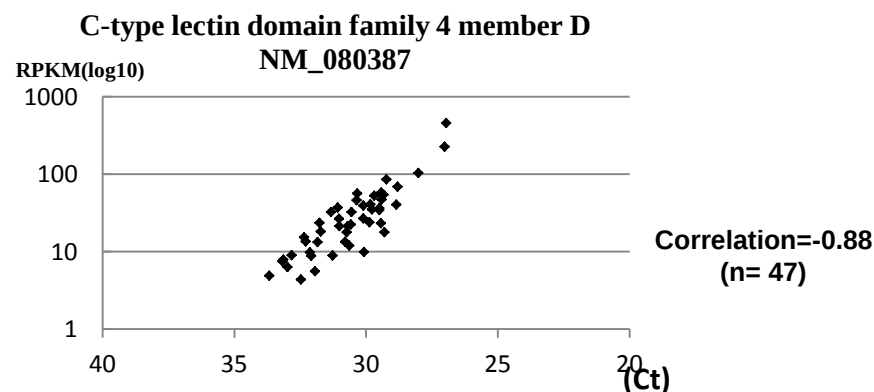
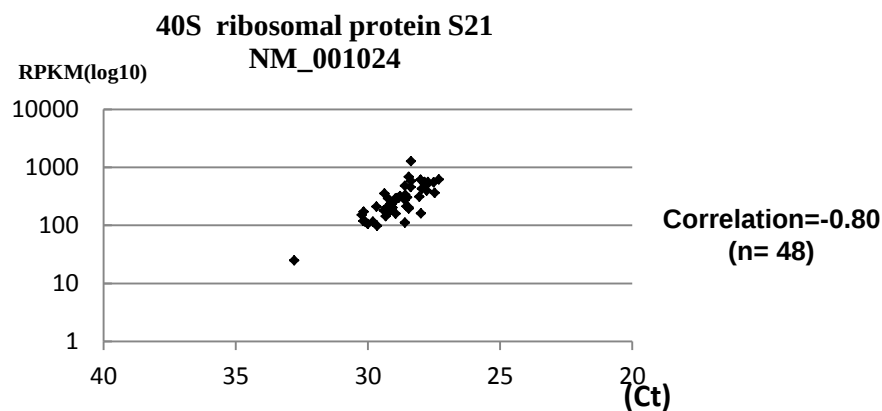
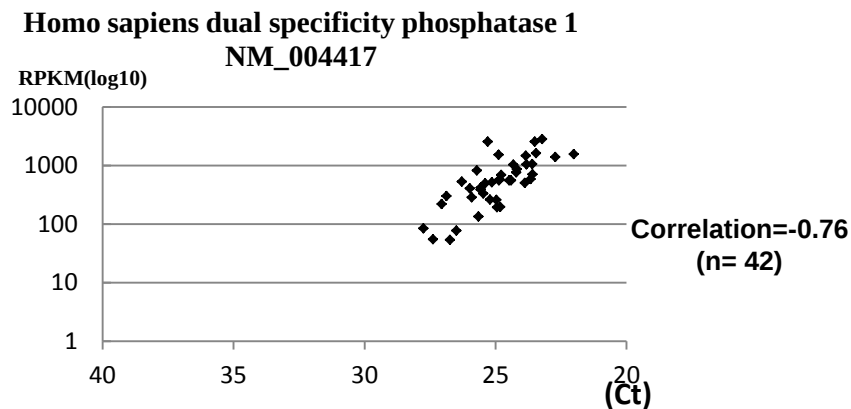


B

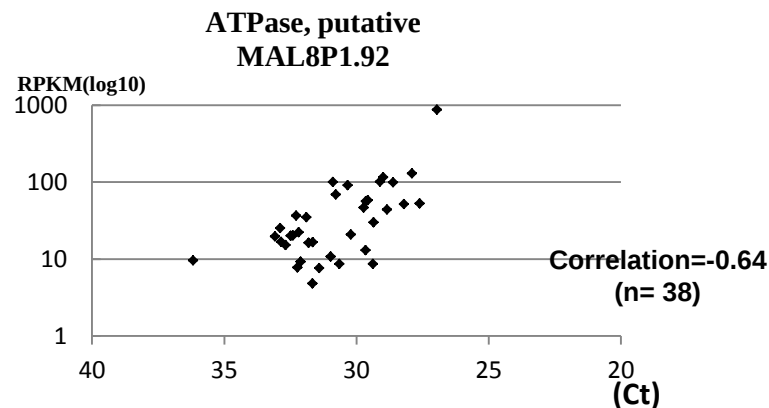
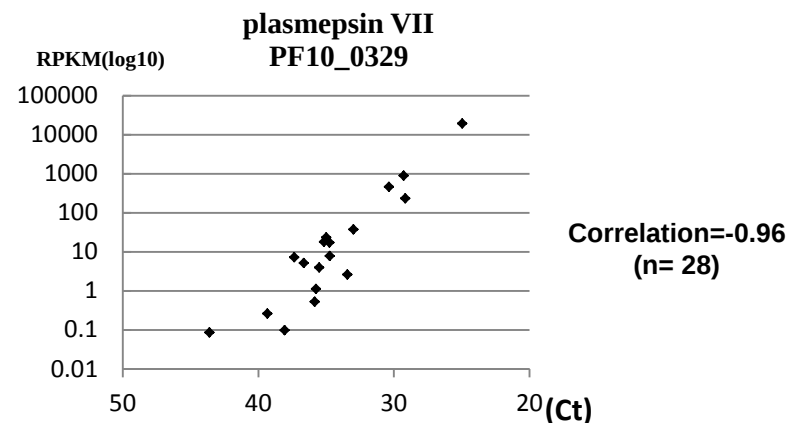
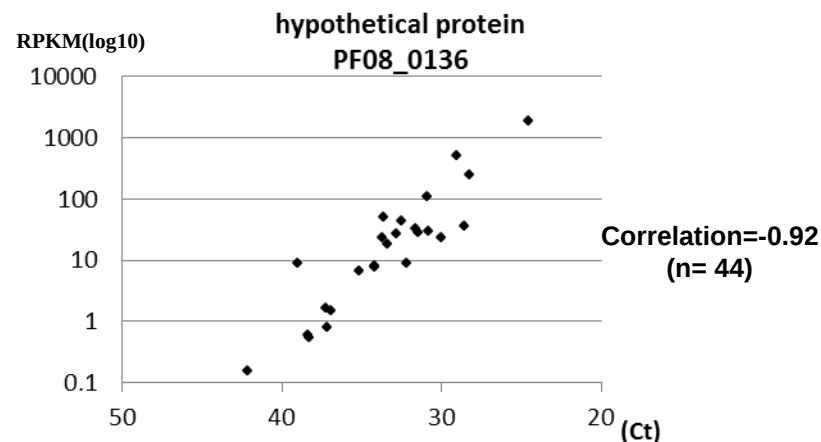


Supplementary Figure 2

A

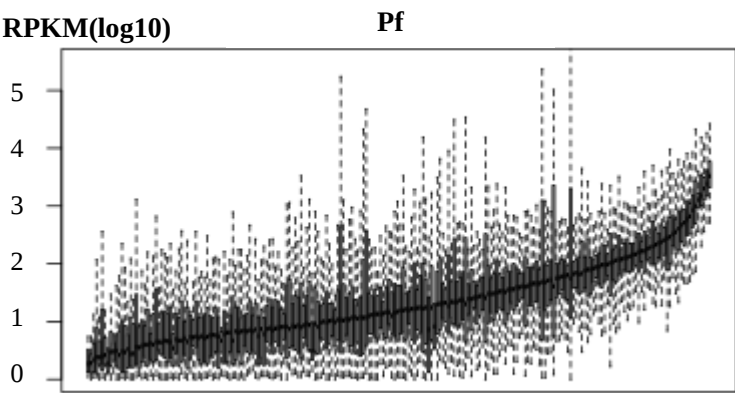
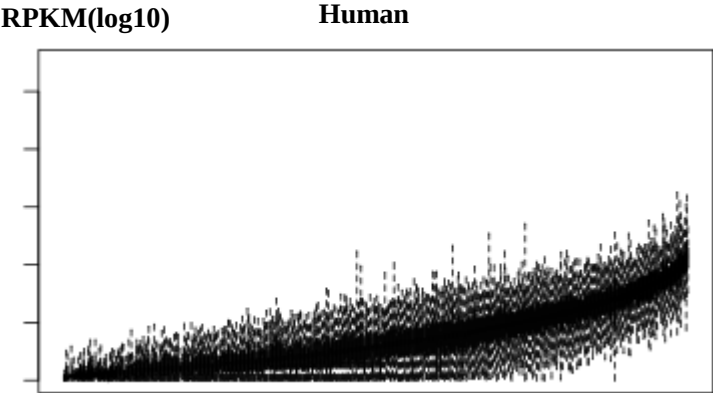


B

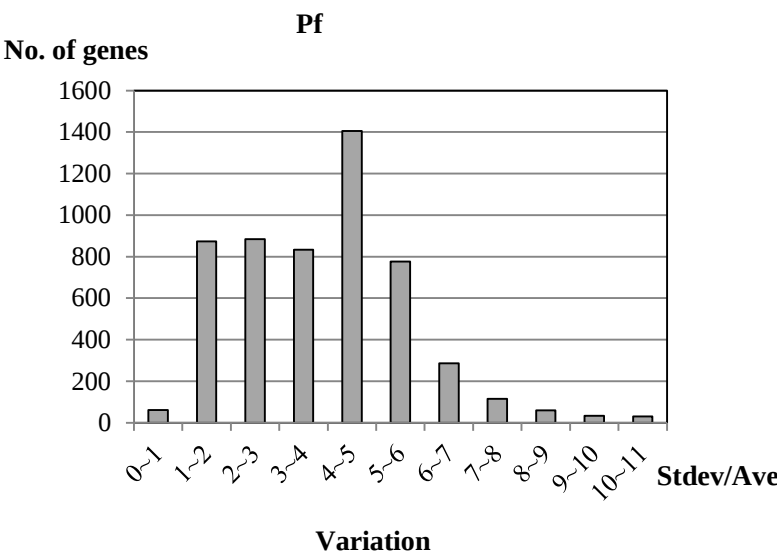
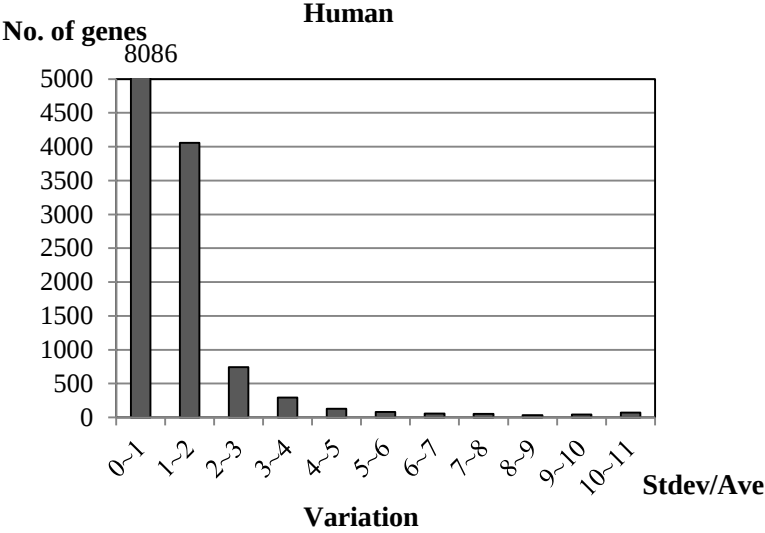


Supplementary Figure 3

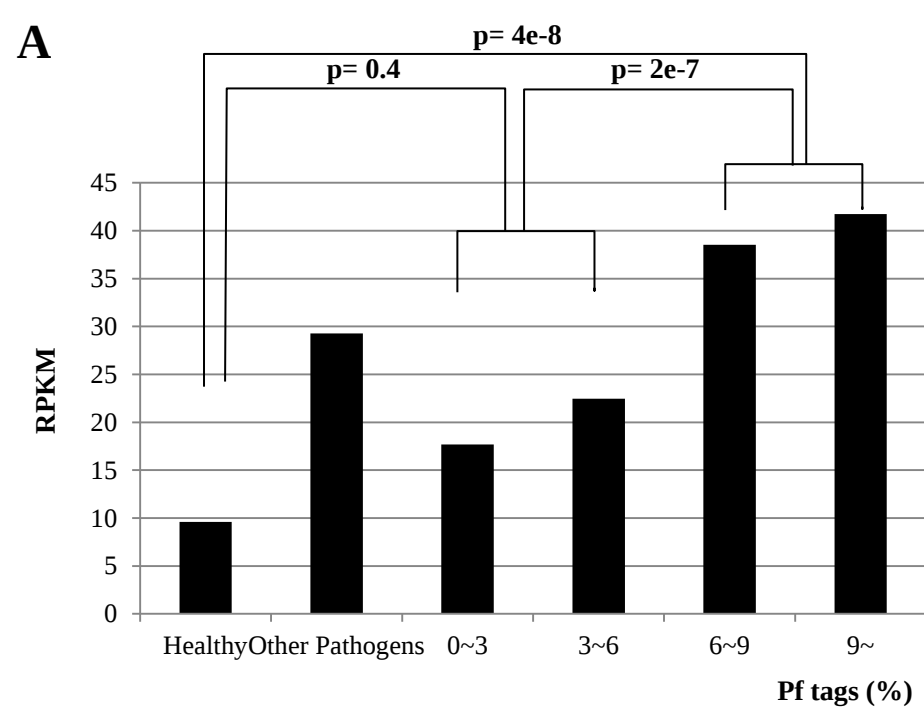
A



B

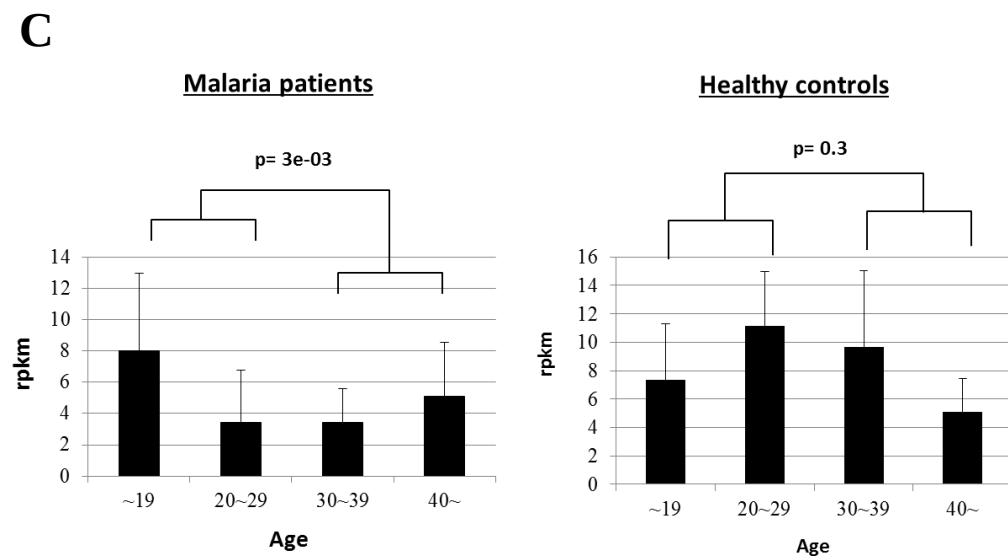


Supplementary Figure 4



B

	Average	Stdev	p-value against healthy controls	p-value against controls having other diseases
Healthy controls	9.6	4.9	NA	0.05
Controls having other diseases	29.3	53.0	NA	NA
%Pf tags= 0-3	22.5	20.5	0.8	0.05
3-6	22.5	20.5	0.04	0.9
6-9	38.5	20.1	2e-6	0.008
9-	41.7	38.7	5e-7	0.02



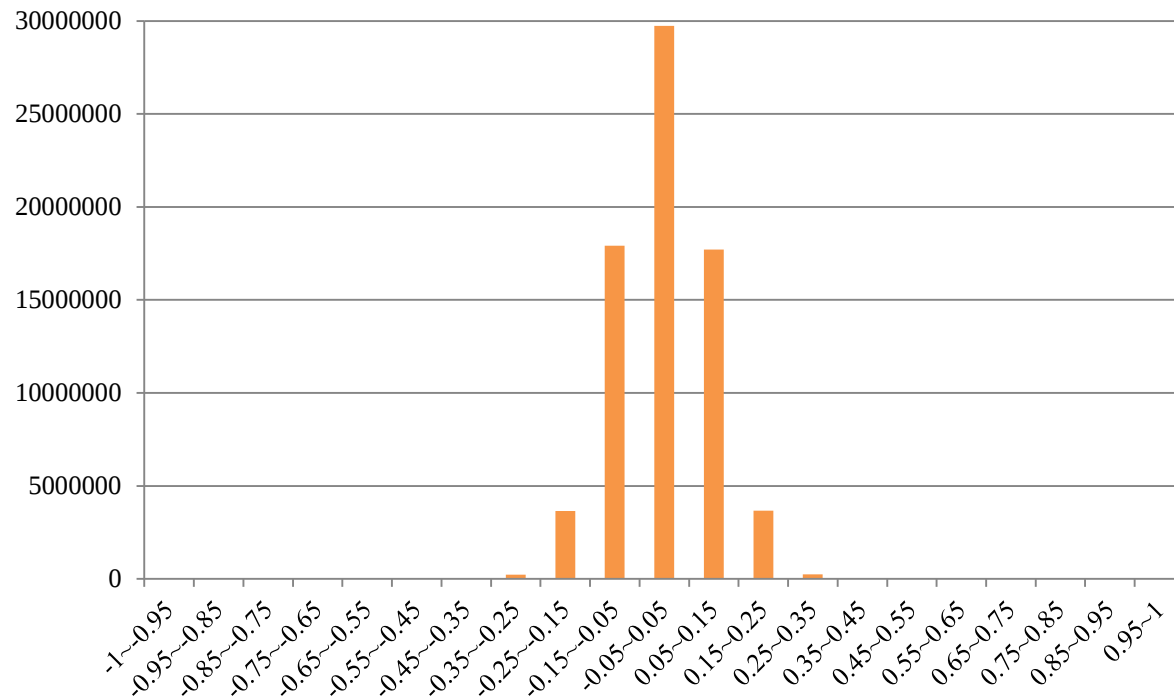
D

Age	Control			Patients			Statistical significance in the difference p-value
	Average RPKM	Stdev	n	Average RPKM	Stdev	n	
0-19	7.4	3.9	9	8	5	50	0.7
20-29	11.2	3.8	4	3.4	3.3	14	0.009
30-39	9.7	5.4	5	3.6	2.1	20	0.01
40-	5.1	2.4	7	5.1	3.4	25	0.9

Supplementary Figure 5

A**Permutation test (n= 1,000)**

No. of gene pairs

**Correlation in the expression levels between human and Pf****B**

	r<-0.5	r>0.5	r<0	r>0
Original	188	52,044	22,531,269	50,615,546
Permutated (average)	0	71	36,687,575	36,462,540

B

PF14_0242
arginine methyltransferase 1

Correlation
Pearson's **0.25**
Spearman's **0.66**

NM_002697
POU domain, class 2, transcription factor 1

Sort by Pf rpkm(up)
Sort by Pf rpkm(dw)
Sort by Human rpkm(up)
Sort by Human rpkm(dw)
Sort by %Pf_tags(up)
Sort by %Pf_tags(dw)
Sort by Temperature(up)
Sort by Temperature(dw)
Sort by Days(up)
Sort by Days(dw)
Sort by Age(up)

PF
Human

Expression level

Patients_id	rpkm(Pf)	rpkm(Human)	%Pf_tags	Temperature	Infection_Days	Age	Gender
p_93	560.22	0.91	72.95	39	4	10	F
p_81	720.56	1.05	85.74	40	6	32	M
p_39	343.61	2.89	88.147	37.8	7	2.7	M
p_96	450.54	2.08	88.103	39	-1	33	M
p_54	674.3	2.17	84.242	40	-1	8	F
p_112	362.37	0.26	89.254	40	-1	9	M
p_43	192.22	1.65	85.23	38.5	2	5.5	M
p_37	43.81	1.42	33.417	36.7	7	22	F
p_97	254.93	0.98	32.893	40	-1	19	M
p_66	1064.65	3.78	25.183	41	-1	38	F
p_116	583.69	2.16	23.666	41	-1	9	M
p_105	340.66	3.47	22.667	40	-1	11	F
p_88	1773.68	2.48	22.214	38	3	61	F
p_58	250.04	2.37	22.062	39	-1	23	M
p_86	1015.06	5.81	20.703	40	-1	63	F
p_109	135.56	0.7	20.544	41	-1	6	F
p_41	361.38	3.66	19.732	39.5	2	20	F
p_76	319.99	0.46	19.195	38	7	55	F
p_63	1246.98	2.76	18.134	37.8	4	88	M
p_64	639.29	3.95	16.995	40	-1	6	F
p_50	835.12	3.21	16.611	-1	-1	2.7	M
p_95	740.85	3.69	15.544	38	-1	36	F
p_73	82.95	0.32	13.544	37	4	13	M
p_49	1236.43	2.46	13.453	38	-1	39	F
p_45	169.94	1.98	13.162	-1	-1	32	M
p_36	110.12	0.08	12.933	36	4	7	M
p_78	201.65	0.41	12.53	40	1	25	M
p_102	407.87	1.52	9.601	39	-1	39	M
p_82	341.45	5	9.283	40	-1	5	M
p_48	277.99	1.66	8.861	39	7	4	M
p_44	203.65	1.14	8.222	-1	7	34	F
p_106	1420.34	2.53	8.112	40	-1	14	M
p_115	383.95	4.21	7.865	39	7	43	M
p_50	343.7	1.03	7.542	39.6	4	6	M
p_118	676.58	1.87	7.513	40	-1	46	M
p_69	838.08	5.55	7.447	38	-1	44	M
p_46	478.88	1.52	7.279	-1	-1	19	F

See Excel files for:

Supplementary Tables 1: Supplementary_Table_1.xls

Supplementary Tables 2: Supplementary_Table_2.xls

Supplementary Tables 3: Supplementary_Table_3.xls

Supplementary Tables 4: Supplementary_Table_4.xls

Supplementary Tables 9: Supplementary_Table_9.xls

Supplementary Tables 10: Supplementary_Table_10.xls

Supplementary Tables 11: Supplementary_Table_11.xls

Supplementary Tables 12: Supplementary_Table_12.xls

A

Rank	Category	NM ID	Definition	p-value (Wilcoxon test)
1	%Pf tags	NM_203416	scavenger receptor cysteine-rich type 1 protein	3e-7
2	%Pf tags	NM_004318	aspartyl/asparaginyl beta-hydroxylase isoform a	6e-7
3	%Pf tags	NM_006714	acid sphingomyelinase-like phosphodiesterase 3a	6e-7
4	%Pf tags	NM_003878	gamma-glutamyl hydrolase precursor	7e-7
5	%Pf tags	NM_024629	centromere protein U	2e-6

B

Rank	Category	NM ID	Definition	p-value (Wilcoxon test)
1	Body temp.	NM_004235	Krueppel-like factor 4	7e-4
2	Body temp.	NM_000355	transcobalamin-2 isoform 1 precursor	8e-4

C

Rank	Category	NM ID	Definition	p-value (Wilcoxon test)
1	Infection date	NM_000184	hemoglobin subunit gamma-2	6e-3
2	Infection date	NM_000146	ferritin light chain	1e-2
3	Infection date	NM_020201	5'(3')-deoxyribonucleotidase, mitochondrial	3e-2
4	Infection date	NM_001867	cytochrome c oxidase subunit 7C, mitochondrial	3e-2

D

Rank	Category	NM ID	Definition	p-value (Wilcoxon test)
1	Age	NM_002561	P2X purinoceptor 5 isoform A	3e-7
2	Age	NM_001169126	transmembrane and immunoglobulin	5e-7
3	Age	NM_139348	myc box-dependent-interacting protein 1 isoform	1e-6
4	Age	NM_001018072	ankyrin repeat and BTB/POZ domain-containing	1e-6
5	Age	NM_170662	E3 ubiquitin-protein ligase CBL-B	1e-6

E

Rank	Category	NM ID	Definition	p-value (Wilcoxon test)
1	Gender	NM_000972	60S ribosomal protein L7a	3e-3
2	Gender	NM_000032	5-aminolevulinate synthase, erythroid-specific,	2e-3

Supplementary Tables 5

A

Rank	Category	PlasomDB ID	Definition	p-value (Wilcoxon test)
1	%Pf tags	PF10_0030	conserved Plasmodium protein, unknown function	2e-11
2	%Pf tags	PFF0470w	conserved Plasmodium protein, unknown function	3e-11
3	%Pf tags	PF11_0510	serine/threonine protein kinase, FIKK family	9e-11
4	%Pf tags	PF13_0118	type I signal peptidase	1e-10
5	%Pf tags	PF11_0038	Plasmodium exported protein, unknown function	1e-10

B

Rank	Category	PlasmoDB ID	Definition	p-value (Wilcoxon test)
1	Body temp.	PFE0045c	serine/threonine protein kinase, FIKK family	3e-4
2	Body temp.	PFC0285c	T-complex protein beta subunit, putative	6e-4
3	Body temp.	MAL13P1.33	conserved Plasmodium protein, unknown function	6e-4
4	Body temp.	PF08_0062	adenylate kinase 2	6e-4
5	Body temp.	PFL1947c	erythrocyte membrane protein 1 (PfEMP1), pseudogene	7e-4

C

Rank	Category	PlasmoDB ID	Definition	p-value (Wilcoxon test)
1	Infection date	MAL13P1.58	Plasmodium exported protein (PHISTa-like), unknown function	3e-3
2	Infection date	PF10_0027	conserved Plasmodium protein, unknown function	8e-3
3	Infection date	PF14_0406	conserved Plasmodium protein, unknown function	8e-3
4	Infection date	MAL8P1.61	conserved Plasmodium protein, unknown function	9e-3
5	Infection date	PFI1530c	conserved Plasmodium protein, unknown function	1e-2

D

Rank	Category	PlasmoDB ID	Definition	p-value (Wilcoxon test)
1	Age	PFF1300w	pyruvate kinase	3e-3
2	Age	PFC0595c	serine/threonine protein phosphatase, putative	3e-3
3	Age	PFF1155w	hexokinase	4e-3
4	Age	PF14_0167	prefoldin subunit 2, putative	6e-3
5	Age	PFE1590w	early transcribed membrane protein 5	6e-3

E

Rank	Category	PlasmoDB ID	Definition	p-value (Wilcoxon test)
1	Gender	PFL0875w	conserved Plasmodium protein, unknown function	3e-3
2	Gender	PFL0055c	RESA-like protein with PHIST and DnaJ domains	6e-3
3	Gender	PFE1605w	Plasmodium exported protein (PHISTb), unknown function	8e-3
4	Gender	MAL8P1.17	protein disulfide isomerase	9e-3
5	Gender	PFB0100c	knob-associated histidine-rich protein	1e-2

Supplementary Tables 6

A

Rank	Category	GO_ID	GO term	p-value (Phyper)
1	%PF tags	GO:0006369	termination of RNA polymerase II transcription	1e-7
2	%PF tags	GO:0042470	melanosome	2e-7
3	%PF tags	GO:0031124	mRNA 3'-end processing	3e-7
4	%PF tags	GO:0006406	mRNA export from nucleus	7e-7
5	%PF tags	GO:0051603	proteolysis involved in cellular protein catabolic process	1e-6

B

Rank	Category	GO_ID	GO term	p-value (Phyper)
1	Body temp.	GO:0006006	glucose metabolic process	1e-6
2	Body temp.	GO:0006094	gluconeogenesis	2e-6
3	Body temp.	GO:0005547	phosphatidylinositol-3,4,5-trisphosphate binding	2e-6
4	Body temp.	GO:0071013	catalytic step 2 spliceosome	2e-6
5	Body temp.	GO:0005100	Rho GTPase activator activity	2e-6

C

Rank	Category	GO_ID	GO term	p-value (Phyper)
1	Age	GO:0071013	catalytic step 2 spliceosome	3e-20
2	Age	GO:0022904	respiratory electron transport chain	5e-20
3	Age	GO:0019058	viral infectious cycle	6e-17
4	Age	GO:0006413	translational initiation	6e-16
5	Age	GO:0019083	viral transcription	2e-15

A

Rank	Category	GO_ID	GO term	p-value (Phyper)
1	%PF tags	GO:0005097	Rab GTPase activator activity	7e-4
2	%PF tags	GO:0032313	regulation of Rab GTPase activity	1e-3
3	%PF tags	GO:0016568	chromatin modification	2e-3
4	%PF tags	GO:0046873	metal ion transmembrane transporter activity	5e-3
5	%PF tags	GO:0004003	ATP-dependent DNA helicase activity	6e-3

B

Rank	Category	KEGG ID	KEGG pathway	p-value (Phyper)
1	%PF tags	KEGG:4130	SNARE interactions in vesicular transport	5e-4
2	%PF tags	KEGG:563	Glycosylphosphatidylinositol (GPI)-anchor biosynthesis	4e-3

C

Rank	Category	KEGG ID	KEGG pathway	p-value (Phyper)
1	Body temp	KEGG:4142	Lysosome	3e-14
2	Body temp	KEGG:10	Glycolysis / Gluconeogenesis	1e-7
3	Body temp	KEGG:3040	Spliceosome	1e-6
4	Body temp	KEGG:511	Other glycan degradation	3e-6
5	Body temp	KEGG:4142	Chagas disease (American trypanosomiasis)	5e-6

D

Rank	Category	KEGG ID	KEGG pathway	p-value (Phyper)
1	%PF tags	KEGG:3040	Spliceosome	1e-15
2	%PF tags	KEGG:3050	Proteasome	2e-7
3	%PF tags	KEGG:3018	RNA degradation	3e-5
4	%PF tags	KEGG:4142	Lysosome	4e-5
5	%PF tags	KEGG:4210	Apoptosis	6e-5

E

Rank	Category	KEGG ID	KEGG pathway	p-value (Phyper)
1	Age	KEGG:3010	Ribosome	8e-17
2	Age	KEGG:3050	Proteasome	5e-15
3	Age	KEGG:20	Citrate cycle (TCA cycle)	1e-7
4	Age	KEGG:5340	Primary immunodeficiency	2e-6
5	Age	KEGG:3030	DNA replication	3e-6