

Table S1

Gene and accession numbers of the redox enzymes and control proteins from the UniProt™ Protein Database

Parasite	Enzyme	Gene number	Accession number	Redox drug
<i>G. duodenalis</i>	PFOR	Q24982	AAA74894.1	Metronidazole
<i>E. histolytica</i>	PFOR	N9TJX2	ENY63830.1	Metronidazole
<i>C. parvum</i>	PFOR	A1DRF1	ABK91849.1	Nitazoxanide

Parasite	Control protein1	Gene/Accession number	Control protein 2	Gene/Accession number	Control protein 3	Gene/Accession number
<i>G. duodenalis</i>	GAPDH	P53429 AAB18421.1	TUB	A8BPC0 EDO78046.1	RPB1	Q8MUU2 AAM77743.1
<i>E. histolytica</i>	GAPDH	C4LVR9 BAN37492.1	TUB	P31017 AAA57315.1	RPB1	Q6IUR3 AAT40981.1
<i>C. parvum</i>	GAPDH	Q7YYQ9 BAJ77164.1	TUB	Q9UAC3 AAD20239.1	RPB1	A0A7G2HJ78 CAD98371.1

Table S2

List of protozoa showing how their lifecycle supports the horizontal acquisition of PFOR from bacteria based on the proximity hypothesis.

Protist	Life cycle	PFOR
Blastocystis	Gastro-intestinal tract, facultative, strict anaerobe, direct vertebrate parasites	
Phytophthora	Free living fungal-like protists, plant parasites	
Pythium	Free living fungal-like protists, predominantly plant parasites	
Achlya	Free living fungal-like protists, plant parasites	
Thraustotheca	Free living fungal-like protists, plant parasites	
Theileria	Erythrocytes, insect-borne cattle parasite	
Babesia	Erythrocytes, insect-borne vertebrate parasites	
Plasmodium	Erythrocytes, insect-borne vertebrate parasites	
Eimeria	Gastro-intestinal tract, direct vertebrate parasites	
Cryptosporidium	Gastro-intestinal tract, direct vertebrate parasites	
Toxoplasma	Diverse cells, obligate intracellular vertebrate parasites	
Tetrahymena	Free living	
Paramecium	Free living	
Plasmodiophora	Free living	
Reticulomyxa	Free living	
Trypanosoma	Blood stream, insect-borne vertebrate parasites	
Leishmania	Macrophages, dendritic cells, insect-borne vertebrate parasites	
Naegleria	free-living amoeboflagellate, aerobic and anaerobic	
Entamoeba	Gastrointestinal tract, anaerobe, direct vertebrate parasites	
Dictyostelium	Free living	
Giardia	Gastrointestinal tract, anaerobe, direct vertebrate parasites	
Tritrichomonas	Genito-urinary tract, anaerobe, direct vertebrate parasites	
Trichomonas	Genito-urinary tract, anaerobe, direct vertebrate parasites	

↕ Straminopiles

↕ Alveolates

↕ Rhizaria

↕ Excavates

↕ Amoebozoa

↕ Metamonads