"Molecular Evaluation of an Investigational Aminoquinoline developed to circumvent Chloroquine Resistance in *Plasmodium falciparum*"

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Distinguishing among malaria parasite genotypes to examine the efficacy of candidate interventions such as drugs and vaccines is not possible with conventional diagnostic methods such as microscopy and rapid diagnostic tests. We addressed this issue during a randomized, single-blind trial of an investigational antimalarial developed to circumvent chloroquine resistance (AQ-13) by comparing parasitologic and clinical outcomes in subjects with chloroquine-resistant (CQ-R) vs. -susceptible (CQ-S) *Plasmodium falciparum* who had been randomized to receive AQ-13 vs. the current first-line treatment (Artemether + Lumefantrine). Because the investigational antimalarial (AQ-13) cleared infections due to both CQ-R and CQ-S parasites, other 4-aminoquinolines with modified side chains active against CQ-R *P. falciparum* in vitro may also be efficacious for the treatment of uncomplicated malaria caused by CQ-R parasites in human subjects.