SUPPLEMENTARY MATERIAL

SUPPLEMENTARY TABLE S1. China's Malaria R&D Innovations Identified in This Scoping Review (2013–2023).

Stage of control	Year of publication	Language	Affiliation	Study type	Product or technology	Phase of the study
Adult mosquito control	2018	English	University	Experimental	Zanthoxylum acanthopodium essential oil	Laboratory
	2019	English	University	Observational	Two Serratia strains (Y1 and J1) isolated from field-caught female *Anopheles sinensis* from China and assessed their effect on *Plasmodium* development in *An. Stephensi*	Laboratory
	2023	English	University	Experimental	Symbiont-mediated RNAi (smRNAi) approach	Laboratory
Screening and diagnosis	2013	English	University	Observational	Sandwich RNA hybridization assay	Laboratory
	2013	English	University	Experimental	*Plasmodium vivax* aldolase-specific monoclonal antibodies	Laboratory
	2014	Chinese	Research institute	Observational	The small subunit ribosomal ribonucleic acid gene amplified by nested polymerase chain reaction for the diagnosis of three-day *Plasmodium* infection	Field
	2014	English	Research institute	Observational	The Wondfo Rapid diagnostic Kit (Pf-HRP2/PAN-pLDH)	Laboratory
	2014	Chinese	Hospital	Observational	A highly sensitive visual closed-tube detection method for *Plasmodium falciparum* based on Loop-mediated Isothermal Amplification (LAMP) technology	Laboratory
	2015	Chinese	Hospital	Observational	SYBR Green Real-time PCR	Laboratory
	2015	English	University	Experimental	The immunogenicity of HRP 2 exon II and the novel monoclonal antibodies (mAbs) against HRP 2 for Point-of-Care Test (POCT)	Laboratory
	2017	Chinese	CDC	Observational	Parallel diagnosis composed of thick blood smears and rapid *Plasmodium* detection (RDT)	Laboratory
	2017	English	University	Observational	The LAMP assay with the primer set PF3D7_1253300-5	Laboratory
	2017	English	University	Observational	A rapid antibody-free diagnostic method of malaria infection with *Plasmodium falciparum* and *Plasmodium vivax* in whole blood with Surface-enhanced Raman Spectroscopy using Nanostructured Gold Substrate	Semi-Field
	2018	English	University	Observational	A Portable Microfluidic Aptamer-Tethered Enzyme Capture (APTEC) Biosensor for Malaria Diagnosis.	Laboratory
	2018	English	University	Observational	A novel aptamer-based electrochemical biosensor (aptasensor) for malaria detection by impedance. Spectroscopy, through the specific recognition between a highly discriminatory DNA aptamer and its target *Plasmodium falciparum* lactate dehydrogenase (PfLDH).	Laboratory
	2018	English	University	Observational	Aptamer-mediated *Plasmodium*-specific diagnosis of malaria	Laboratory
	2019	English	Hospital	Observational	Mindray BC-6800 hematology analyzer	Laboratory
	2019	Chinese	University	Observational	nABPs obtained by recombinant expression and purification using genetic engineering technology, and a colloidal gold immunochromatography detection method	Laboratory
	2020	Chinese	Research institute	Observational	Loop-mediated isothermal amplification technology for capture and connection	Laboratory
	2020	English	University	Observational	A novel fluorescence probe of *Plasmodium vivax* lactate dehydrogenase based on adenosine monophosphate protected bimetallic nanoclusters	Laboratory
	2022	Chinese	Hospital	Observational	Changes of red blood cell and platelet parameters in patients with malignant malaria	Field
	2022	English	University	Observational	The novel LAMP assay based on the *P. falciparum* actin I gene	Semi-Field
	2022	English	University	Observational	Multi-section Capture and Ligation Probe PCR (mCLIP-PCR).	Semi-Field
	2022	Chinese	Other	Observational	A group of primer pairs with better amplification effects; The amplification of the entire RAA system could be completed in 20 minutes at 37 ℃ using the best primer pairs.	Laboratory
	2022	English	Other	Experimental	An assay using recombinase-aided amplification (RAA) and a lateral-flow dipstick (LFD) (RAA-LFD) to detect the 18S ribosomal RNA gene of *Plasmodium* species	Laboratory

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Screening and Diagnosis	2022	English	Research institute	Observational	The mμLAMP detection system: a new detection system, i.e., multiplex microfluidic loop-mediated isothermal amplification (mμLAMP) array, was developed to provide a convenient, rapid and economical detection system for malaria diagnosis.	Laboratory
	2023	Chinese	Hospital	Observational	The blood cell histogram of the BC-5300 blood cell analyzer combined with blood smear microscopy to detect *Plasmodium*	Semi-Field
	2023	English	Research institute	Observational	AIDMAN: An AI-based object detection system for malaria diagnosis from smartphone thin-blood smear images	Semi-Field
	2023	English	Hospital	Observational	A rapid multiplex assay of human malaria parasites by digital PCR	Semi-Field
	2023	English	CDC	Experimental	An Innovative Point-of-Care Rapid Diagnostic Test for the identification of imported malaria parasites in China	Field
	2023	English	University	Observational	A simple alkaline lysis method for DNA extraction from blood samples on filter paper.	Laboratory
	2024	English	University	Observational	A field-applicable, ultrasensitive malaria diagnostic tool based on CRISPR-Cas13a for the detection of *P. falciparum* in whole blood samples	Laboratory
Larva control	2015	English	University	Observational	Capture and Ligation Probe-PCR (CLIP-PCR)	Laboratory
	2016	Chinese	Other	Observational	Recombinant enzyme-mediated isothermal amplification RAA technology	Laboratory
Prevention	2015	English	University	Observational	The discovery of a novel virulence factor of *P. falciparum*, a TatD-like DNase (PfTatD) that is expressed primarily in the asexual blood stage and is likely utilized by the parasite to counteract NETs.	Laboratory
	2016	English	University	Experimental	The cryptic epitopes of different antigens in the sporozoite and liver stages of *Plasmodium falciparum* to increase their immunogenicity without changing T cell antigen receptor (TCR)-peptide binding specificity	Laboratory
Treatment	2013	Chinese	Hospital	Experimental	Artesunate combined with CVVH treatment	Field
	2013	English	University	Observational	Novel Selective and Potent Inhibitors of Malaria Parasite Dihydroorotate Dehydrogenase: Dihydrothiophenone Derivatives	Laboratory
	2014	English	University	Observational	Endoperoxide polyketides from a Chinese Plakortis simplex	Laboratory
	2016	English	University	Experimental	Prototypes of lateral flow dipstick assays	Field
	2017	English	University	Observational	Inosine monophosphate dehydrogenase (IMPDH), an important target for antimalarial drug discovery	Laboratory
	2017	English	University	Observational	The component in A. annua extracts (MAE) leading to enhanced antiplasmodial potency of QHS via regulation of its metabolism	Laboratory
	2017	Chinese	Hospital	Experimental	The efficacy of acupuncture combined with artemisinin-based drugs in the treatment of malaria	Field
	2018	English	University	Observational	The supplementation of L-Arg may be a promising adjunctive therapy to reduce malaria-associated mortality in endemic areas. susceptibility to parasite synchronously by regulating host immune responses against P.y17XL, producing better outcomes for malaria infection	Laboratory
	2018	English	University	Experimental	Lipid emulsions for intravenous co-delivery of artemether and lumefantrine in severe malaria treatment	Laboratory
	2019	English	University	Observational	Identified a novel series of dual inhibitors through fragments assembly	Laboratory
	2019	English	Research institute	Observational	4-Aryl pyrrolidines as a novel class of orally efficacious antimalarial agents	Laboratory
	2019	English	University	Experimental	Overexpression of AaPIF3	Semi-Field
	2020	English	University	Observational	A series of artemisinin-sulfonamide hybrids (1–16)	Laboratory
	2020	English	University	Observational	Drug Repurposing of Quisinostat to Discover Novel *Plasmodium falciparum* HDAC1 Inhibitors with Enhanced Triple-Stage Antimalarial Activity and Improved Safety	Laboratory

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Treatment	2021	English	Research institute	Experimental	Naphthoquine-Azithromycin Coformulation	Field
	2021	English	Hospital	Observational	Employed comparative genomics analysis and identified parasite-infected erythrocyte-specific protein 2 (PIESP2) to be a CM-related protein; further experimental investigations found that PIESP2 is an immunogenic protein	Laboratory
	2021	English	University	Observational	PfDXR inhibitors with improved pharmacology/safety	Laboratory
	2021	English	Research institute	Observational	The identification of a *Plasmodium*-blocking symbiotic bacterium, *Serratia ureilytica* Su_YN1	Laboratory
	2021	English	University	Observational	An HMFN-based delivery system with considerable antimalarial efficacy	Laboratory
	2021	English	University	Experimental	Heparin-decorated nanostructured lipid carriers of artemether-protoporphyrin IX-transferrin combination for therapy of malaria	Laboratory
	2023	Chinese	CDC	Experimental	The treatment of vivax malaria in children with Wumei Pills combined with Compound dihydroartemisinin Tablets and primaquine regimens	Field