

Malaria Drug Pipeline (1 of 4)		Plasmodium Species	Preclinical	Phase I	Phase II	Phase III	Market
1	Amodiaquine Guilin Pharmaceutical Co Ltd	falciparum					■
2	Chloroquine	falciparum; vivax					■
3	Proguanil Imperial Chemical Industries	falciparum; vivax; ovale					■
4	Leoprime Sanofi	vivax; ovale; malariae					■
5	Pyrimethamine	falciparum					■
6	Sulfadoxine/Pyrimethamine Roche	falciparum					■
7	Halofantrine GlaxoSmithKline; Walter Reed Army Institute of Research	falciparum					■
8	Mefloquine US Army Medical Research and Development Command; Special Programme for Research and Training in Tropical Diseases (TDR); Roche	falciparum; vivax					■
9	Atovaquone GlaxoSmithKline	falciparum					■
10	Atovaquone/Proguanil GlaxoSmithKline	falciparum					■
11	Artemether/Lumefantrine Novartis, Medicines for Malaria Venture (MMV)	falciparum					■
12	Artesunate/Mefloquine FACT Project Consortium	falciparum; falciparum- vivax mixed infection					■
13	Artemisinin/Naphthoquine Academy of Military Medical Sciences; Kunming Pharmaceutical Corporation	falciparum					■
14	Artesunate Guilin Pharmaceutical Co Ltd; Ipca Laboratories Ltd	falciparum					■
15	Dihydroartemisinin/Piperaquine Sigma Tau Group; Medicines for Malaria Venture (MMV); Chongqing Holley Holding; Pfizer	falciparum					■
16	Artesunate for injection Guilin Pharmaceutical Co Ltd	falciparum					■
17	Artesunate/Amodiaquine Sanofi; Drugs for Neglected Diseases Initiative (DNDi), Medicines for Malaria Venture (MMV)	falciparum; vivax					■
18	Artemether/Lumefantrine Dispersible Novartis; Medicines for Malaria Venture (MMV)	falciparum					■
19	Artemether Lincoln Pharmaceuticals	falciparum					■
20	Pyronaridine/Artesunate Shin Poong Pharmaceuticals; University of Iowa; Medicines for Malaria Venture (MMV)	falciparum; vivax					■

Malaria Drug Pipeline (2 of 4)		Plasmodium Species	Preclinical	Phase I	Phase II	Phase III	Market
21	Sulfadoxine pyrimethamine/Amodiaquine Guilin Pharmaceutical Co Ltd; Medicines for Malaria Venture (MMV)	falciparum					■
22	Piperaquine	falciparum					■
23	Lumefantrine (co-artemether) Academy of Military Medical Sciences	falciparum					■
24	Sulfalene/Pyrimethamine Pfizer	falciparum					■
25	Arterolane maleate/Piperaquine phosphate Ranbaxy Laboratories Ltd; Medicines for Malaria Venture (MMV)	falciparum					■
26	Artemotil	falciparum					■
27	Artemisinin Academy of Traditional Chinese Medicine	falciparum					■
28	Artesunate/Sulfadoxine pyrimethamine Guilin Pharmaceutical Co Ltd	falciparum; vivax					■
29	Bulaquine Central Drug Research Institute; Piramal Enterprises Ltd	falciparum; vivax					■
30	Chloroquine + Primaquine	vivax					■
31	Dapsone Allergan	falciparum					■
32	Desferoxamine Novartis	falciparum					■
33	Dihydroartemisinin Zhejiang Holley Nanhu Pharmaceutical Co	falciparum					■
34	Methylene blue University of Oxford	falciparum; vivax					■
35	Naphthoquine phosphate	falciparum					■
36	Pyrimethamine/Dapsone GlaxoSmithKline	falciparum					■
37	Pyronaridine Chinese Center for Disease Control and Prevention	falciparum; vivax					■
38	Quinidine	falciparum					■
39	Quinine/Quinidine/Cinchona/Cinchonidine Sanofi	falciparum					■
40	Quinine	falciparum; vivax					■
41	Quinine + Clindamycin	falciparum; vivax					■
42	Quinine + Doxycycline	falciparum					■

Malaria Drug Pipeline (3 of 4)		Plasmodium Species	Preclinical	Phase I	Phase II	Phase III	Market
43	Quinine + Tetracycline	falciparum					■
44	Artemether spray HC Berlin Pharma AG; Eastland Medical Systems Ltd; ProtoPharma Limited; Star Medical	falciparum				■	
45	Azithromycin/Chloroquine Pfizer; Medicines for Malaria Venture (MMV); London School of Hygiene and Tropical Medicine	falciparum; vivax				■	
46	Pediatric Dihydroartemisinin/Piperaquine Sigma Tau Group; Medicines for Malaria Venture (MMV)	falciparum				■	
47	Intra-rectal Artesunate Special Programme for Research and Training in Tropical Diseases (TDR)	falciparum				■	
48	Pediatric Pyronaridine/Artesunate Shin Poong Pharmaceuticals; Medicines for Malaria Venture (MMV)	falciparum; vivax				■	
49	Tafenoquine GlaxoSmithKline; Medicines for Malaria Venture (MMV); Walter Reed Army Institute of Research (WRAIR)	vivax				■	
50	AQ-13 Immtech	falciparum			■		
51	Artemisone Hong Kong University of Science & Technology; Bayer AG	falciparum; vivax			■		
52	DSM265 Medicines for Malaria Venture (MMV); University of Texas Southwestern Medical Center; University of Washington; Monash University; Takeda Pharmaceutical Co; US National Institutes of Health (NIH)	falciparum; vivax			■		
53	Ferroquine Sanofi	falciparum			■		
54	Fosmidomycin/Piperaquine Jomaa Pharma GmbH	falciparum			■		
55	KAF 156 (GNF156) Novartis Institute for Tropical Diseases (NITD); Genomics Institute of the Novartis Research Foundation; Medicines for Malaria Venture (MMV)	falciparum; vivax			■		
56	Cipargamin Novartis Institute for Tropical Diseases (NITD); Medicines for Malaria Venture (MMV)	falciparum; vivax			■		
57	Artefenomel University of Nebraska; Monash University; Swiss Tropical and Public Health Institute; Medicines for Malaria Venture (MMV)	falciparum; vivax			■		
58	ACT451840 Actelion Pharmaceuticals	falciparum		■			
59	Aminopyrdinel University of Cape Town; Swiss Tropical and Public Health Institute; Monash University; Medicines for Malaria Venture (MMV); Technology Innovation Agency	falciparum		■			

**Malaria
Drug Pipeline (4 of 4)**

Plasmodium
Species

Preclinical

Phase I

Phase II

Phase III

Market

		Plasmodium Species	Preclinical	Phase I	Phase II	Phase III	Market
60	Allocriptopine/Protopine/Berberine Antenna Technologies; University of Geneva	falciparum		■			
61	CDRI 97/63 + CDRI 97/78 Ipca Laboratories Ltd; Central Drug Research Institute	falciparum		■			
62	GSK369796 Liverpool School of Tropical Medicine; GlaxoSmithKline	falciparum		■			
63	SJ733 St. Jude Children's Research Hospital; Rutgers University; University of California, San Francisco; Medicines for Malaria Venture (MMV); Eisai	falciparum		■			
64	BCX4945 BioCryst Pharmaceuticals, Inc; Albert Einstein College of Medicine	falciparum	■				
65	CDRI 99/411 Ipca Laboratories Ltd; Central Drug Research Institute		■				
66	LMK235 Hinrich Heine University; Eskitis Institute for Drug Discovery; University of California, San Diego; Eberhard Karls University	falciparum	■				
67	JPC-2997 Army Malaria Institute; University of Miami; Jacobus Pharmaceutical Company	falciparum; vivax	■				
68	MMV121 University of Dundee; Medicines for Malaria Venture (MMV)	falciparum	■				
69	NPC1161B University of Mississippi	falciparum; vivax	■				
70	P218 DHFR inhibitor National Center for Genetic Engineering and Biotechnology (BIOTEC); Monash University; Liverpool School of Tropical Medicine; Medicines for Malaria Venture (MMV)	falciparum	■				
71	Pyrazoles 21A092 Drexel University; University of Washington; Medicines for Malaria Venture (MMV)	falciparum	■				
72	Quinolones University of South Florida; Oregon Health and Science University; Drexel University; Monash University; Medicines for Malaria Venture (MMV); Liverpool School of Tropical Medicine; St. Jude Children's Research Hospital	falciparum; vivax	■				
73	Reversed chloroquine molecules DesignMedix; Portland State University	falciparum	■				
74	Trioxaquines Palumed; Sanofi	falciparum	■				

Malaria Drugs

New Indications & New Regimens

Plasmodium
Species

Preclinical

Phase I

Phase II

Phase III

Market

			Preclinical	Phase I	Phase II	Phase III	Market
75	Trimethoprim/Sulfamethoxazole Institute of Tropical Medicine (ITM); University of California, San Francisco	falciparum				■	
76	OZ439 + Ferroquine Medicines for Malaria Venture (MMV); Sanofi	falciparum				■	
77	OZ439 + Piperaquine Medicines for Malaria Venture (MMV); Sanofi	falciparum			■		
78	Tinidazole Walter Reed Army Institute of Research (WRAIR)	vivax			■		