KADAMBA
Nano-supplment for
Malaria

Current Global Burden

Malaria is a life-threatening disease, according to the recent statistics released by 'World Health Organization', approximately 282 million new cases are detected worldwide annually, the death tally accounts for about 1 million, and 95 % of the ovrall deaths occur in Africa alone. Children under five years are most vulnerable for the disease, accounting for 76% of regional

Current challenges of anti-malarial treatment: Kadamba's approach

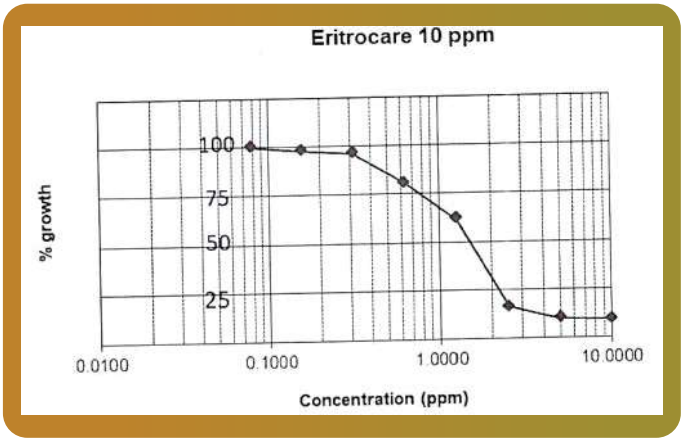
Artemisinin-based combination therapy (ACT) became the standard of care to treat falciparum malaria around the world for last one decade. However, within the next decade, the development of resistance to artemisinins attributed to delayed clearance linked to K13 mutations in Plasmodium falciparum.

Kadamba's novel green nanotechnology approach, a synergestic combination of Indain ancient wisdom, Ayurveda and modern green-nanotechnology, after years of extensive research, has lead to the development of non-toxic, ecofrindly green nano formulation with enhanced efficacy and bioavailalibility which greatly reduces the malarial parasites.

Personalized medicinal supplement for malarial care

The current malarial treatment strategy poses many challenges particularly like drug resistance, compliance and safety and also surface many side effects and metabolic disturbances like hypoglycemia, lactic acidosis, anemia, hyperbilirubinemia and platelet reduction. The synergistic and concerted action of Kadamba-supplement addresses majority of the complications very effectively and precisely because of enhanced immunomodulatory capabilities, efficacy and biocompatibility.

Efficacy of Kadamba supplement on Plasmodium falciparum



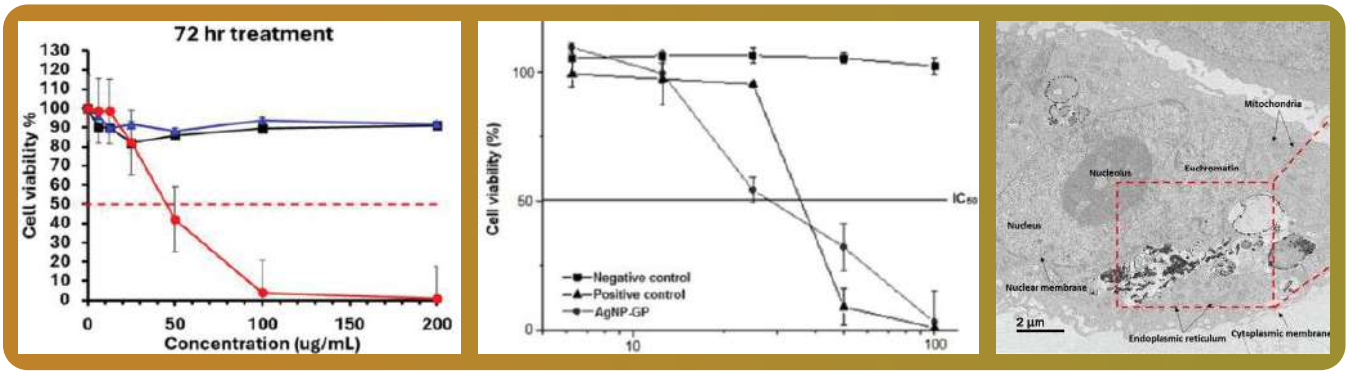
Efficacy studies of Kadamba nano-supplement on malarial parasite Plasmodium falciparum revealed that 'Eritrocare' exhibited ~90 % reduction of malarial parasites at just 10 ppm concentration, which is at least 1000-fold

Testing	Concentration Tested	IC50 Pf3D7	Findings
Eritrocare	10 ppm	1.5 ppm	Good activity in terms of formulations or phytochemical extracts
Chloroquine (Std.)	50 nM	6.3 nM	Reference drug

Biosafety of Kadamba Nanosupplement

Evaluation of cytotoxicity in human and zebrafish model

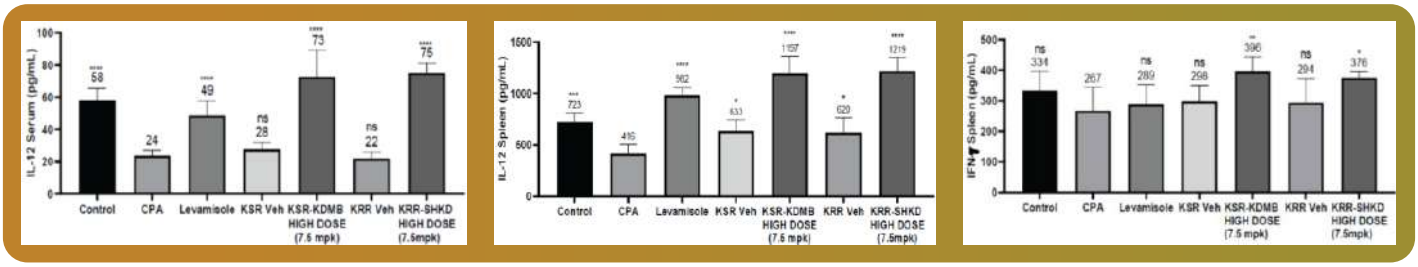
Human aortic endothelial cells (HAEC) | Viability assessment in Zebrafish model | Internalization by endocytosis



The experimental evidences suggests that Kadamba nano formulations are safe (100 %) for humans, showing no toxic effect on the normal cells even after 72 h of treatment (200 µg/mL; 177 µg/mL in zebrafish model, 10 days; NOAL 10mg/Kg in mice).

Reprogramming of immune system: cytokine profiling

Cytokines are tiny glycoproteins/proteins (5-25 kDa) secreted mainly by dendritic cells, macrophages, T cells and B cells associated with immune system, that amplify the immune responses by binding to specific surface receptors, often influencing cell growth, differentiation, and intercellular communication.



Kadamba nano-supplement for malaria could be a revolutionary innovation in the parasitology which selectively inhibit the malarial parasite, Plasmodium falciparum, considered as one of the complex and deadly pathogens particularly for children under five years of age. The concerted action of Kadamba anti-malarial supplement can able to provide protection against the parasite at the both sporozoite (liver stage) and merozoite (blood stage) stage and simultaneously boost the immune system by enhancing pro-inflammatory cytokines involved in innate and adaptive defence with no side-effect and maximum efficacy.

www.nanocare.in

doctor@kadambamail.com
+91-96207 07345

director@kadambamail.com
+91-96204 39307