Curdlan Sulfate a sulfated 1,3,β-D-glucan (CRDS) has been shown in pre-clinical studies as being effective in inhibiting *P. falciparum in vitro*, *P. berghei in vivo* and *Babesia canis* infection in dogs. CRDS has been shown to be synergistic with chloroquine, quinine and artesunate, to down modulate the immune response in decreasing both TNF and NO and direct nonspecific effect on cytoadherence and rosetting may be predicted as has been described previously with other sulfated polysaccharides, e.g. heparin. Thus CRDS is a potential candidate as an adjunct medication for treatment of severe/cerebral malaria. The clinical studies have been initiated in four phases to address safety, efficacy and potential interaction in vivo of CRDS with classical antimalarials.

Phase A - randomised, double blind, crossover, placebo controlled study (CRDS used alone) in patients with asymptomatic malaria.

Phase B – randomised, double blind, placebo controlled study in patients with mild malaria as adjunct medication to chloroquine.

Phase IIB - randomised, double blind, placebo controlled study in patients with severe malaria as adjunct medication to artesunate.

Phase C - randomised, double blind, placebo controlled study in patients with cerebral malaria as adjunct medication to artesunate.

The two arms of treatment in all studies showed similar results for all haematological, biochemical and urine analysis results. In all studies only adverse events recorded during CRDS treatment arm was an increase in APTT. This adverse effect is well documented with CRDS and can be easily monitored with the subsequent adjustment of dosing.

There is an indication of the positive effect of CRDS on cytoadherence as recorded in phase A where a slight increase in parasitaemia has been observed after CRDS treatment without subjects presenting with malaria symptoms. In phases B, IIB and C CRDS facilitates clearance of parasite and fever clearance time (e.g. severity of disease). In addition, CRDS showed no recrudescence in patients treated with chloroquine in phase B. CRDS seems beneficial in cerebral malaria in patients where there is no organ damage present (renal failure and pulmonary oedema).

In conclusion CRDS was well tolerated in all studies. CRDS seems to augment disease process along the line of the results obtained from pre-clinical studies. It seems that the group of patients, which will benefit most are severe/cerebral cases with no additional clinical complications such as renal failure and pulmonary oedema. These complications are rare in children. This group represents the majority of deaths recorded in Africa.