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A 23,000 MW ANTIGEN OF *CRYPTOSPORIDIUM* LOCALISED BY
IMMUNO-ELECTRON MICROSCOPY.

by

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Immunoblot studies of either intact *Cryptosporidium* oocysts or sporozoite life cycle stages have detected a small molecular weight (MW) antigen (20-23,000 MW) which was frequently recognized by acute and convalescent sera from human beings, goats, cattle and horses. This antigen is potentially significant in elucidating mechanisms of immunity and the present study was undertaken to determine the location of the 23,000 MW antigen using a protein A-colloidal gold conjugate and electron microscopy.

Polyclonal rabbit antiserum was raised against the 23,000 MW antigen prepared from human-derived *Cryptosporidium* oocysts by electro-elution from polyacrylamide gels. The antiserum was tested for specificity by immunoblotting against solubilised oocyst preparations. A number of antigens were detected (23-160,000 MW) suggesting that it shared common epitopes with higher MW antigens.

Sections containing exogenous and endogenous developmental stages of *Cryptosporidium* were incubated with the antiserum raised against the 23,000 MW antigen in conjunction with a protein A-colloidal gold conjugate and examined by electron microscopy. Specific labelling of the inner and outer membranes of the pellicles of sporozoites and merozoites was observed. Labelling was more pronounced around the anterior ends of zoites and less intense around the posterior ends. No specific labelling was observed for any other membrane determinants or organelles in these or other life cycle stages.