# INTRODUCTION

The virulence of S.typhi in animals and humans has been correlated with th epresence of Vi antigen (Hornick, 1970).

The lipopolysaccharide (LPS) of salmonella species and other members of the family Enterobacteriaceae are complex molecules comprising three structurally and serological distinct regions, i.e a lipid moiety , a core oligosaccharide and the O-specific side chain . There is only one core structure which shows serological cross -reactivity with some members of the Enterobacteriaceae (Schmidt et al, 1970).

Significant differences were found in the amount of cytotoxin porduced by salmonella species suggesting that cytotoxin production may play a role in pathogenesis of .S. typhi .S. typhi produced the lowest amount of cytotoxin , an amount similar to that produced by non pathogenic enteric E. coli(Cleary et al, 1985) .

S.typhi , the causative agent of typhoid fever must invade human gastrointestinal tract and multiply within the host to cause a disease (El Sighorst, 1989).

The ability of salmonella strains to enter roammalian cells in vitro also appears to correlate with their ability to invade ileal mucosa in vivo (Lee and Falkow, 1990).