

# ***Introduction***

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The Genus *Salmonella* was originally discovered by medical bacteriologists to include organisms that gave rise to a certain type of illness in man and animals and were related to one another antigenically. The main species of medical importance are salmonellae causing enteric fever ( *S. typhi* , *S. paratyphi* A, B & C) and salmonellae causing food poisoning (*S. typhimurium* & *enteritidis*) (*Ivanoff, 1995*) . Infection due to salmonella continues to be a major global health problem. *Salmonella enterica* serotype Typhi is endemic in developing countries in Africa, South and Central America, and the Indian subcontinent, with an estimated incidence of 33 million cases each year. *Salmonella enterica* is a major endemic and epidemic cause of gastrointestinal and extraintestinal infections worldwide (*Crum, 2003*)

For diagnosis of enteric infection isolation of the organism by stool culture remains the most reliable method for detection, allowing precise identification of the bacteria and antimicrobial susceptibility testing, both of which are critical for disease control. A variety of selective media for isolation of salmonellae are available. They rely on visualization of simple biochemical features such as the nonfermentation of lactose and the production of hydrogen sulfide to identify *Salmonella* spp. in stool. They are used specifically in stool samples to control overgrowth of coliforms. The specificities of such media are poor and time-consuming however complementary testing is required to confirm identification of salmonella (*Ruiz, et al 1996*)

Recently, media allowing the detection of salmonella Spp. by incorporation of chromogenic substrates have been introduced. CHROMagar *Salmonella* (CAS) is a newer selective chromogenic medium that detects salmonellae as mauve colonies at 18 to 24 hour of incubation, with other members of the family Enterobacteriaceae appearing as blue or uncolored colonies. Many Studies are currently discussing the degree of selectivity, differentiation offered by These media and how they can make help in the diagnosis of enteric infection. (*Fallon, et al 2003*)