



5^e Symposium du CRIP

**Mercredi 16 mai & jeudi 17 mai 2012
à la Faculté de médecine vétérinaire
de Saint-Hyacinthe, Québec, Canada**

Présentation par affiche (poster)

Characterisation of plasmids from a *Salmonella* Typhimurium septicemic isolate not possessing the classical 95 kb virulence plasmid

Nadia Bergeron¹, France Daigle^{2,3}, Ann Letellier^{1,3}, Sylvain Quessey^{1,3}

¹CRSV, GRESA, Faculté de médecine vétérinaire, Université de Montréal; ²Département de microbiologie et immunologie, Faculté de médecine, Université de Montréal; ³GREMIP, Faculté de médecine vétérinaire, Université de Montréal

Salmonella Typhimurium is an important pathogen in swine and also a zoonotic agent. Infections caused by septicemic strains of *S. Typhimurium* are associated with mortalities in mature pigs and therefore with economic losses for the porcine industry. However, most of affected pigs will become asymptomatic carriers and can be the source of meat contamination when slaughtered. It is thus important to better characterize these isolates in order to understand pathogenesis of infection and develop appropriate control measures. In this study, some plasmids of a *S. Typhimurium* strains isolated from a septicemic pig were characterized. This isolate did not possess the classical 95 kb plasmid associated to virulence, but contained many low molecular weight plasmids. This isolate was one of the most invasive in intestinal epithelial cell line (58.34% ± 7.32) and showed no acquire resistance to tested antimicrobial agents. We therefore sequenced these plasmids using conjugation. They contained some open reading frames that carry some genetic information for replication and mobilization. These plasmids contained also information for enzymatic function and some hypothetical proteins from various bacterial species. These plasmids contained several genes of unknown functions that will need to be further studied for their putative role in virulence.