

Contribution of the type VI secretion system encoded in SPI-19 to chicken colonization by *Salmonella enterica* serotypes Gallinarum and enteritidis

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Salmonella Gallinarum is a pathogen with a host range specific to poultry, while *Salmonella Enteritidis* is a broad host range pathogen that colonizes poultry sub-clinically but is a leading cause of gastrointestinal salmonellosis in humans and many other species. Despite recent advances in our understanding of the complex interplay between *Salmonella* and their hosts, the molecular basis of host range restriction and unique pathobiology of *Gallinarum* remain largely unknown. Type VI Secretion System (T6SS) represents a new paradigm of protein secretion that is critical for the pathogenesis of many Gramnegative bacteria. We recently identified a putative T6SS in the *Salmonella* Pathogenicity Island 19 (SPI-19) of *Gallinarum*. In *Enteritidis*, SPI-19 is a degenerate element that has lost most of the T6SS functions encoded in the island. In this work, we studied the contribution of SPI-19 to the colonization of *Salmonella Gallinarum* strain 287/91 in chickens. Non-polar deletion mutants of SPI-