

Workshop: *Deconstructing Biochemical Networks*  
22–23 September 2007

*Coordinate Regulation of Motility and Invasion  
in Salmonella Typhimurium*

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**Abstract**

Salmonella typhimurium is a common food-borne pathogen that infects roughly one million individuals in the US each year. Salmonella invades the host by breaching the intestinal epithelium using a type III secretion system encoded in Salmonella pathogenicity island I (SPI-1). Expression of the SPI-1 genes is controlled by a number of factors including flagellar proteins. Likewise, expression of flagellar genes is controlled by a number of SPI-1 proteins, indicating that there is a bidirectional regulatory link between the two systems. In this talk, I discuss our investigations of the dynamics crosstalk between SPI-1 and flagellar gene expression.

*This is joint work with Supreet Saini.*