

SEMINAIRE INTERNE :

Le **Mercredi 12 juin**, **Mélanie BILLAUD** (Etudiante M2, Equipe Ecosystèmes et Immunité, Département de Biologie Médicale), nous présenteront à **11h30** en salle de réunion du CSM (2ème étage) un séminaire intitulé :

Influences des conditions environnementales sur l'expression des facteurs de virulence de *Vibrio parahaemolyticus*

Vibrio parahaemolyticus is a significant human pathogen capable of causing foodborne gastroenteritis associated with the consumption of contaminated raw or undercooked seafood. *V. parahaemolyticus* possesses virulence factors that are essential to pathogenicity. Quantitative RT-PCR (qRT-PCR) is a useful tool for studying genes expression in *V. parahaemolyticus* to observe its virulence genes and understand the effects of environmental conditions on its pathogenicity. The aim of this study was to evaluate the expression of 6 virulence factors (MAM7, TDH, VopQ, VopR, VopS and VPA0450) between low and high salinity, and during the first hours of the infection of HeLa cells. At first, an observation of bacteria growth was done for the different medium. Bacteria grows in Luria Bertani (LB) medium, which is beneficial for their development, with two different salinities 1,5% or 3% of NaCl. At different times (30 minutes, 1, 3 and 6 hours), all the content was collected. We show that an higher salinity involved a significant increase of the expression of virulent effectors from the type 3 secretion system 1 (T3SS1). In case of infection of HeLa cells, bacteria were cultured in Dulbecco's Modified Eagle's medium (DMEM) with or without cells. At 1, 3 and 6 hours the supernatant and the cells layers were collected. This secretion system is activated in contact with HeLa cells layer by increasing genes expression in the early hours of infection, whereas in the supernatant the expression stay unchanged.