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Christina Nielsen-Leroux, Laurent Consentino, Agnès Réjasse, Nicolas Crapart, Claudia Bevilacqua

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Laurent Consentino[1], *Agnès Réjasse*[1], *Nicolas Crapart*[2,3], *Christophe Buisson*[1], *Claudia Bevilacqua*[2], *Christina Nielsen-Leroux*[1]

[1] *INRA, UMR 1319 MICALIS & AgroParisTech, 78350 Jouy-en-Josas, France*; [2] *INRA, UMR 1313 GABI, plateforme @BRIDGE, 78350 Jouy-en-Josas, France;* [3] *Excilone, 6-10 rue Blaise Pascal, 78990 Elancourt, France.*

Corresponding author: laurent.consentino@inra.fr

Iron acquisition is essential for pathogenic bacteria in DNA synthesis, enzyme activities, and respiration. However, free iron is toxic for organisms: it is bound to other molecules like hemoproteins, transferrin or stored in ferritin. To overcome this lack of free iron, bacteria possess several systems to acquire bound iron, by surface proteins or secreted iron chelating siderophores. In the gut iron homeostasis is complex since host cells, commensal microbiota and food-iron are interacting to maintain this balance and little is known about genes involved during gut infection. Our work addresses this purpose in *Bacillus cereus*, (closely related to the insect pathogen *Bacillus thuringiensis)*. The presentation focus on genes related to iron homeostasis expressed during gut infection in the larvae of the insect model, *Galleria mellonella* (Greater wax moth). To perform these analyses, we adapted Laser Capture Microdissection to collect *B. cereus* cells in cryo-sections of previously force fed germ-free larvae and assessed targeted gene expression by RT-qPCR from the recovered mRNA. The results showed modulation of several iron homeostasis related genes at 16h (bacteria colonising the intestine surface) compared to 3h (bacteria in the lumen) post infection. Further analyzes are ongoing to characterize physiological and chemical markers in the gut environment.