

Graduate Schools
Infection & Immunity and Biology & Medicine

Seminars in Microbiology

Monday, March 24, 2014

Salle de séminaire 7172, CMU

11:30 – 12:30

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A study on *Staphylococcus aureus* that starts at the cell wall and ends in nucleotide signaling

The cell wall is a vital and multi-functional part of bacterial cells. For *Staphylococcus aureus*, an important human pathogen, surface proteins and cell wall polymers are essential for adhesion, colonization and during the infection process. One such cell wall polymer, lipoteichoic acid (LTA), is crucial for normal bacterial growth. Here, it will be discussed how LTA synthesis proceeds and how *S. aureus* manages to survive in the absence of LTA. This led to the identification of c-di-AMP in *S. aureus*, a novel signaling nucleotide for which the first cellular pathways controlled by it are now beginning to emerge.

Systematic identification of conserved bacterial c-di-AMP receptor proteins.
Corrigan RM, Campeotto I, Jeganathan T, Roelofs KG, Lee VT, Gründling A.
Proc Natl Acad Sci U S A. 2013 May 28;110(22):9084-9.

c-di-AMP is a new second messenger in *Staphylococcus aureus* with a role in controlling cell size and envelope stress.

Corrigan RM, Abbott JC, Burhenne H, Kaever V, Gründling A.
PLoS Pathog. 2011 Sep;7(9):e1002217.

Contact: P. Viollier

Sandwiches will be offered after the seminar