



Staphylococcus aureus – Diabetic Foot Infection

Procedure Summary

- Immunocompetent BalbC mice, eight weeks old females
- *Staphylococcus aureus*
 - Clinical MSSA strain
- Induction of diabetes (Streptozotocin)
- Bacterial challenge by inoculation into the hindpaw
- Tested compounds: Linezolid (IP), bacteriophage assembly (locally)

Experimental readouts

- Bacterial load in the hindpaw
- Pharmacokinetics of phages (various routes of administration, various organs)
- Toxicity/safety of phages
- Clinical score, weight monitoring

Animal Welfare

- Each experimental protocol is approved by the local ethics committee for animal experimentation of Grand Campus Dijon (Burgundy, France) and performed in accordance to the current recommendations of the European Institute of Health EU Directive 86/609

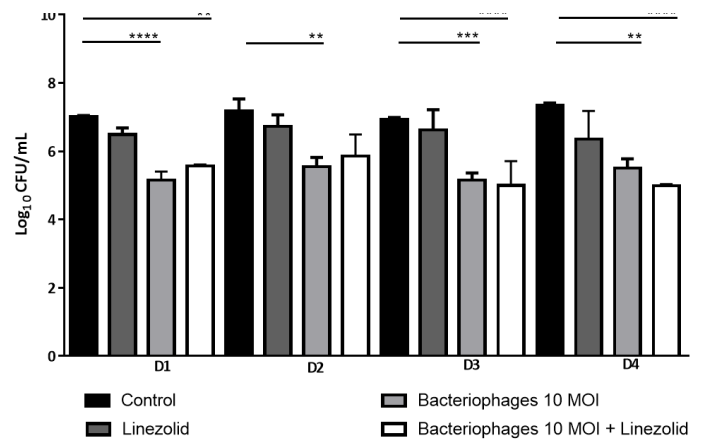
Reference

- Albac *et al.*, AAC 2019 “Efficacy of bacteriophages in a *S. aureus* non-diabetic or diabetic foot infection murine model”

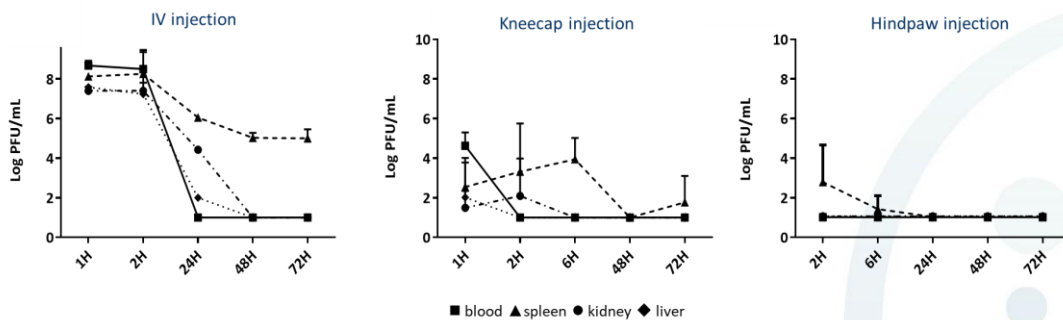
Facilities

- These assays are performed at our BSL2 laboratory / zootechnical center in Dijon, France

Bacterial load in hindpaws of diabetic BALB/c mice following treatment with an assembly of three bacteriophages, linezolid and combination of phages and linezolid ($p < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$).



Pharmacokinetics of an assembly of three bacteriophages after systemic injection of 10^9 PFU/mouse or intra-articular injection at the kneecap or in the hindpaw of 10^8 PFU/mouse.



Our scientific team will readily accommodate client-specific alterations and will provide expert advice and guidance for your efficacy studies

For more information please contact : info@vivexia.fr