



Pseudomonas aeruginosa (PA14) – acute pneumonia

Procedure Summary

- Immunocompetent New Zealand rabbits
- *P. aeruginosa*, PA14 strain
- Intra-tracheal challenge (9.5 Log CFU)
- Reference compounds : Tobramycin™/ Ceftazidime (intermittent iCAZ or continuous infusion cCAZ)
- Simulated human dosing (PK) for 48h

Experimental readouts

- Bacterial burden in lung tissue and spleen
- Weight loss, food intake
- Fever
- Clinical disease severity score
- Morbidity and mortality
- Gross pathology of lungs
- Detection of resistant mutants

Optional Services

- Broncho Alveolar Lavage Fluid
- Histology
- Cytokine and chemokine analysis
- Immune cell counts

Facilities

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

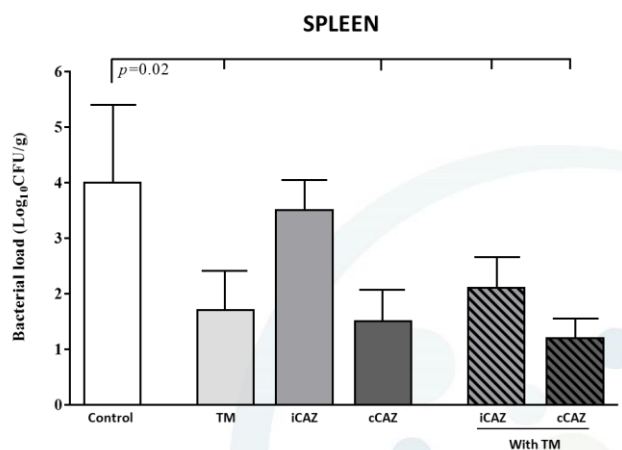
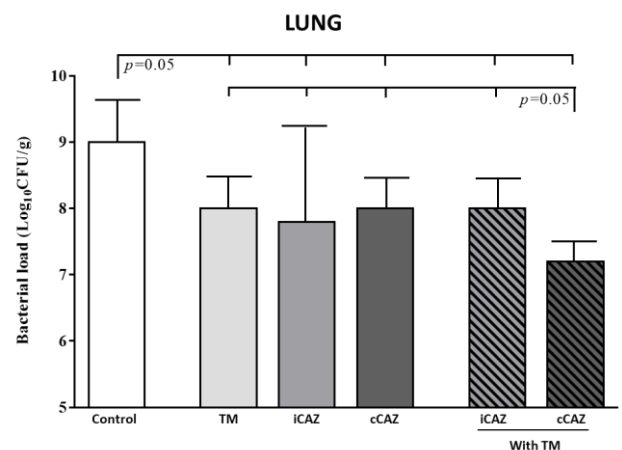
Reference

- Croisier *et al.*, Int J Antimicrob Agents, 2008 « *In vivo* efficacy of humanised intermittent versus continuous ceftazidime in combination with tobramycin in an experimental model of

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.

Residual bacterial concentrations in lung and spleen of rabbits infected with *Pseudomonas aeruginosa* PA14 strain and receiving intermittent or continuous ceftazidime, alone or in combination with tobramycin treatment.



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