Klebsiella pneumoniae – Lung infection

Procedure Summary

- Neutropenic CD-1 mice, eight weeks old females
- *Klebsiella pneumoniae* NDM-1 strain (ATCC BAA 2470)
- Neutropenic status induced by 2 cyclophosphamide intraperitoneal (IP) administrations at D-4; 150mg/kg and D-1; 100mg/kg
- Bacterial challenge by intranasal route
- Reference compound: Tigecycline 10mg/kg, 40mg/kg or 80mg/kg (IV)

Experimental readouts

- CFU determination of NDM-1 strain in lungs
- Survival rate
- Weight loss
- Clinical score

Optional Services

- Histology
- Cytokine and chemokine analysis
- Pharmacokinetics

Literature / reference

- Craig *et al.*, Antimicrob. Agents Chemother. 2008 "*In vivo* pharmacodynamics of ceftobiprole against multiple bacterial pathogens in murine thigh and lung infection models"

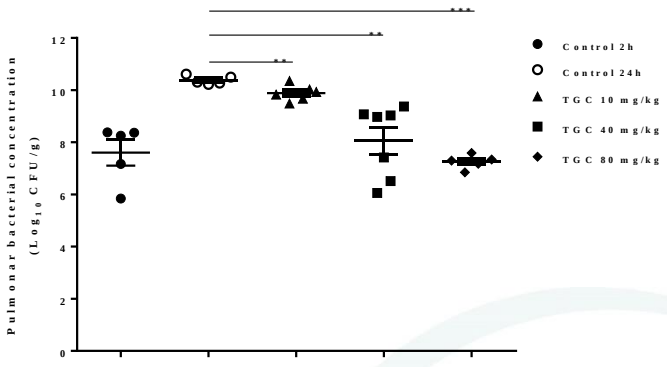
Animal Welfare

- 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

Facilities

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

Evaluation of the efficacy of tigecycline on the residual bacterial load in the neutropenic mouse model of lung infection by *Klebsiella pneumoniae* NDM-1 (p<0.05*, p<0.01, p<0.001***).**



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

For more information please contact : **info@vivexia.fr**