Supplementary Figure 1: Biofilm assay in vitro

**Microtiter Biofilm Assay** on plastic for A) PA14-\(\text{lux}\) and B) \(\Delta\text{flgK-}\text{lux}\). C) **Air-Liquid-Interface Biofilm Assay** on titanium implant surface and direct bacterial enumeration of sonicated implants resulting suspension (mean viable colony counts CFU/mL ± standard deviation n = 4) (* p-value <0.05; ** p-value <0.01; *** p-value <0.001). **Scanning electron microscope** (25x magnification, scale bar=1mm) of D) negative control titanium implant (sterile media) versus, E) PA14-\(\text{lux}\) biofilm formation with bacterial cells imbedded in extracellular matrix, and F) \(\Delta\text{flgK-}\text{lux}\) individual cells attached to the implant surface (inset image 10k x magnification, scale bar = 1 \(\mu\)m).

Biofilms were grown in vitro in minimal medium, consisted of M63 salts supplemented with L-arginine (0.4%) and MgSO\(4\) (1 mM) for 24 hours at 37°C.
Supplementary Figure 2: Complications

A) X-ray of left proximal femur of the non-infected surgical control group in anteroposterior (AP) projection showing stem fracture B) Axial slice of left proximal femur of one rat of the PA14-\textit{lux}-PJI group is showing lesser trochanter avulsion fracture. C) X-ray of left proximal femur of one rat of the PA14-\textit{lux}-PJI group in lateral projection and, D) 3D reconstruction, are showing greater trochanter avulsion fracture.