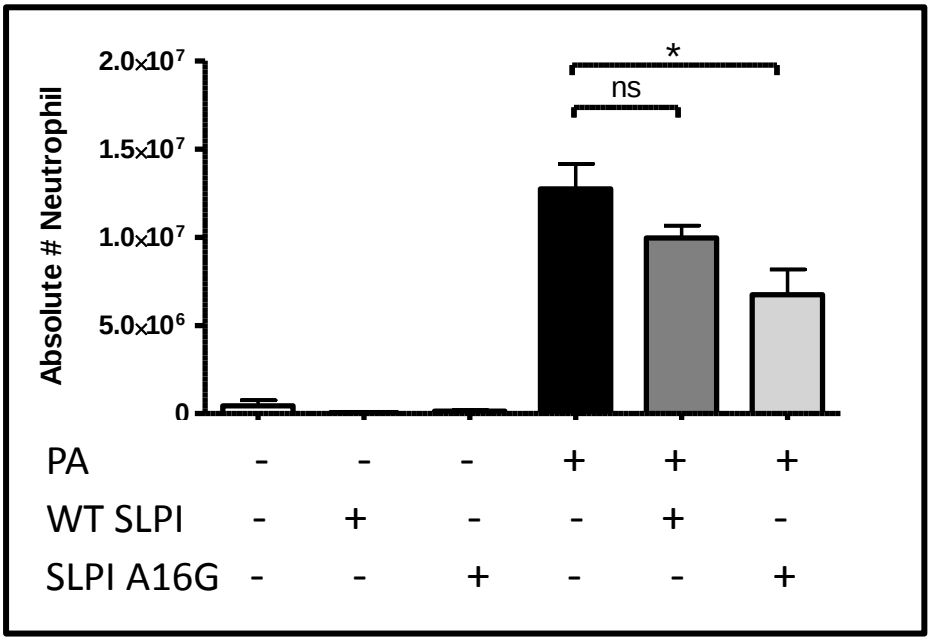
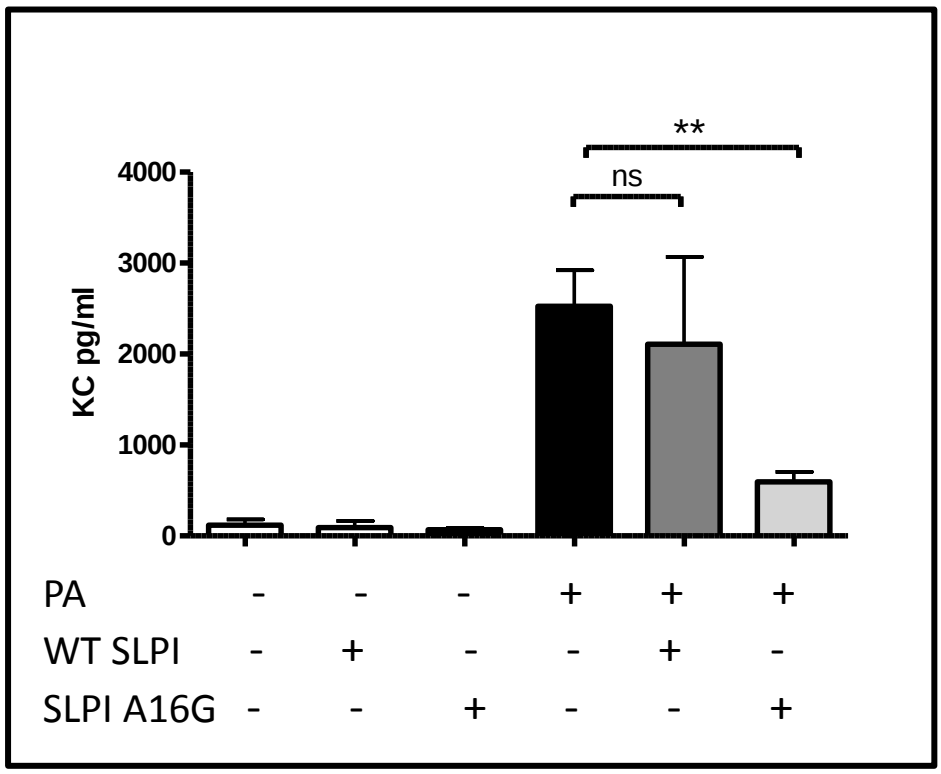
Figure 6 A



Control	WT SLPI	Mutant SLPI	PA	PA + WT SLPI	PA + Mutant SLPI
0.000	0.000	0.000	1.092600e+007	1.226800e+007	3680000.000000
1082400.000	0.000	34800.000	1.166500e+007	1.046000e+007	2548000.000000
0.000	0.000	0.000	1.834000e+007	1.011900e+007	8053300.000000
250500.000	0.000	0.000	9980400.000000	1.107500e+007	1.238200e+007
345600.000	0.000	0.000	1.512400e+007	6760000.000000	9072400.000000

B



Control	WT SLPI	Mutant SLPI	PA	PA + WT SLPI	PA + Mutant SLPI
141.57010	239.71720	108.42900	3131.20600	1006.69000	669.92660
0.00000	2.74091	54.65215	2478.35200	4979.51200	675.50930
214.17030	29.20057	46.02744	2354.40000	1224.33400	269.24050
101.26000	121.60000	56.40000	3482.40300	1224.33400	760.77280
98.40000	3.70000	64.70000	1175.83700	2009.00000	601.40000

Effect of SLPI-WT and SLPI-A16G in an in vivo model of pulmonary infection

Housing and experimentation was carried out in accordance with the Animal (Scientific Procedures) Act 1986 and current guidelines approved by the Queen's University Ethical Review Committee. A log phase culture of clinical strain of P. aeruginosa (PA Q502) isolated from the lungs of a CF patient was washed and suspended in sterile endotoxin-free PBS (Sigma-Aldrich) at an OD (600 nm) of 0.5, equating to 3 x108 CFU. C57BL/6 mice purchased from Charles Rivers Laboratories were anaesthetized and intranasally inoculated with 20 µl of PA Q502 or saline control. Concurrently, 100 µg of SLPI-WT and SLPI-A16G (or saline control) was administered intraperitoneally. Animals were sacrificed 24 h post infection. The animals were exsanguinated by cardiac puncture; the blood was coagulated at room temperature then centrifuged at 13,000 x g for 10 min. Sera was stored at -20oC

until required for analysis. KC was quantified by ELISA (R&D Systems, Abingdon, UK) following the manufacturer's instructions.

Perfused, minced lungs were incubated in Iscove's Modified Dulbecco's Medium (IMDM) containing 1 mg/ml of Collagenase D and 200 µg/ml of DNase for 1 h at 37°C, 200 x g. The tissue was then passed through a 70 µm cell strainer resulting in a single cell suspension. The cells were washed with sterile PBS and red blood cells were lysed with 3 ml of ACK lysis buffer (NH_4Cl 8.3g/L, $KHCO_3$ 1g/L, 3.72g/L EDTA in distilled water). The cells were counted and incubated with Fc block (1:1000 in PBS, eBioscience, Hatfield, UK) for 15 minutes. The cells were stained for flow cytometry with CD45 FITC (1:1000 in PBS, BioLegend), CD11b APC (1:1000 in PBS, eBioscience), Gr1 PE (1:1000 in PBS, eBioscience), F4/80 PeCy7 (1:500 in PBS, eBioscience) for 20 minutes in the dark at room temperature. Cells were then washed and acquired using a FACSCanto II (BD Biosciences, Oxford, UK). The data was analysed using FlowJo software (Tree Star).