Supplementary Figure 1.

S1A. Progression-free survival in cohort of patients with serous ovarian cancer according to tumor IL-6 expression.

S1B. Constitutive release of IL-6 by four ovarian cancer cell lines was assessed by electrochemiluminscence analysis.

S1C. Expression of IL-6 gp80 and gp130 receptors by ovarian cancer cell lines was assessed by flow cytometry.

Supplementary Figure 2.

2A. Quantification of luciferase activity in TOV21G xenografts treated with siltuximab. Although reduced luciferase activity was seen after 4 weeks in the siltuximab-treated group, the difference compared to the IgG control was not significant in two experiments.

2B. Ki67, F4/80 and lectin analysis in TOV21G xenograft models. Siltuximab significantly reduced cell proliferation and tumour vasculature compared to IgG control in TOV21G xenografts (unpaired t test p= 0.01 and 0.005 respectively). There were also reductions in macrophage influx, albeit non-significant.

2C. Serum human IL-6 profiles in TOV21G xenografts**.** After 2 weeks in TOV21G, hIL-6 increased with siltuximab treatment. By 4 weeks, hIL-6 concentrations were above the upper detection limit of the MSD platform (10,000pg/ml), hence any further increases could not be accurately detected.

Supplementary Figure 3.

S3A. Serum CRP and plasma IL-6 were measured at baseline in all patients in the phase II trial.

S3B. Haemoglobin levels were measured in all patients weekly for the first six weeks and every two weeks thereafter. Four patients received transfusions during trial treatment and are excluded from haemoglobin analysis. Points represent mean ± sem, dotted lines represent linear regression trend lines and p value denotes significance of the linear regression slope deviating from zero (ie no change over time).

S3C. Plasma levels of CCL2, VEGF, TNF-α and IL-8 were measured weekly in all patients for the first six weeks. Points represent mean ± sem.

S3D. IL-6 and gp130 expression in SD/PR patients compared to PD patients demonstrates increased expression in tumour cells, with little difference in stromal expression of either protein.

S3E. Quantification of tumour-specific IL-6 and gp130 expression in SD/PR patients compared to PD patients at time of diagnosis.