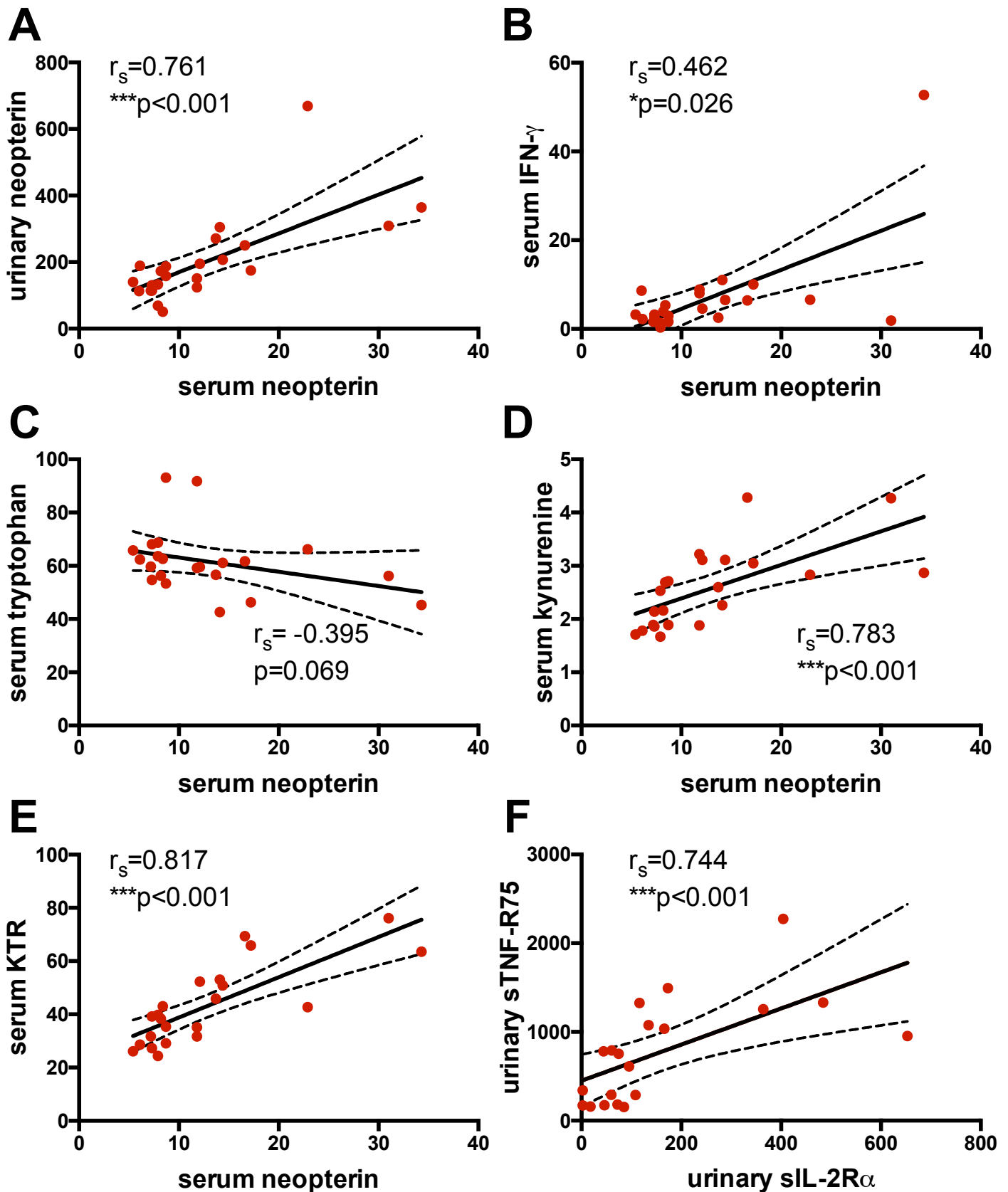


Supplementary Figure 1. Gating strategy for flow cytometry analysis. Live-dead discrimination and doublet discrimination by the indicated cell gating, analysis of CD4⁺ T cells, CD4⁺CD25⁺ T cells, differentiation of effector T cells (T_{eff}) and regulatory T cells (T_{reg}) based on CD39 and CD161.



Supplementary Figure 2. Correlation analysis (and 95% confidence bands) at baseline between serum neopterin and A) urinary neopterin; B) serum IFN- γ ; C) serum tryptophan; D) serum kynurenine; E) serum KTR; and F) urinary sIL-2R α and sTNF-R75. P-values for r_s were corrected for multiple testing according to the Bonferroni method. * $p<0.05$; ** $p<0.01$; *** $p<0.001$.
Abbreviations: Spearman's rank correlation coefficient (r_s)

Parameters	Response (n=19)	Failure (n=4)
Age , mean (SD), <i>years</i>	71.8 (7.1)	68.7 (9.5)
Gender , n (%)		
Male	16 (84.2%)	4 (100%)
Female	3 (15.8%)	-
Tumor diameter , n (%)		
< 3 cm	11 (57.9%)	3 (75.0%)
≥ 3 cm	8 (42.1%)	1 (25.0%)
Number of tumors , n (%)		
Single	8 (42.1%)	-
2-7	7 (36.8%)	2 (50.0%)
>7	4 (21.1%)	2 (50.0%)
T stage		
pTa	9 (47.4%)	-
pT1	7 (36.8%)	2 (50.0%)
pTa + pT1	1 (5.3%)	-
CIS	2 (10.5%)	2 (50.0%)
Concurrent CIS	1 (5.3%)	2 (50.0%)
Second TURB , n (%)	16 (84.2%)	3 (75.0%)

Supplementary Table 1. Descriptive and histopathological characteristics based on oncological outcome to BCG.