

Supplementary Figure 1. **MDSC suppress T cell proliferation and IFN $\gamma$  production.**

**A.**  $2 \times 10^5$  PBMC from RCC patients depleted or not of CD66b<sup>+</sup> MDSC and were activated with immobilized anti-CD3 (1  $\mu$ g/ml) and anti-CD28 (0.1  $\mu$ g/ml) antibodies. After 72 hours of culture the cells were pulsed with 1  $\mu$ Ci of [<sup>3</sup>H] Thymidine and incorporation tested after further 18 hours. Analysis of [<sup>3</sup>H] Thymidine incorporation (**B**) and IFN $\gamma$  production (**C**) were calculated using a fixed number of T cells ( $1 \times 10^5$ ). **A-C** Experiments were repeated 3 times using samples from individual RCC patients and controls.

Supplementary Figure 2. **MDSC have lower arginase I compared to autologous PMN.**

**A.** Representative experiment of arginase I protein expression in MDSC and autologous PMN from same RCC patient and PMN from controls. Experiment was repeated 5 times using samples from individual RCC patients and normal controls. **B-C.** Plasma levels of gelatinase A and nitrotyrosine in RCC patients (n=5) and controls (n=6).