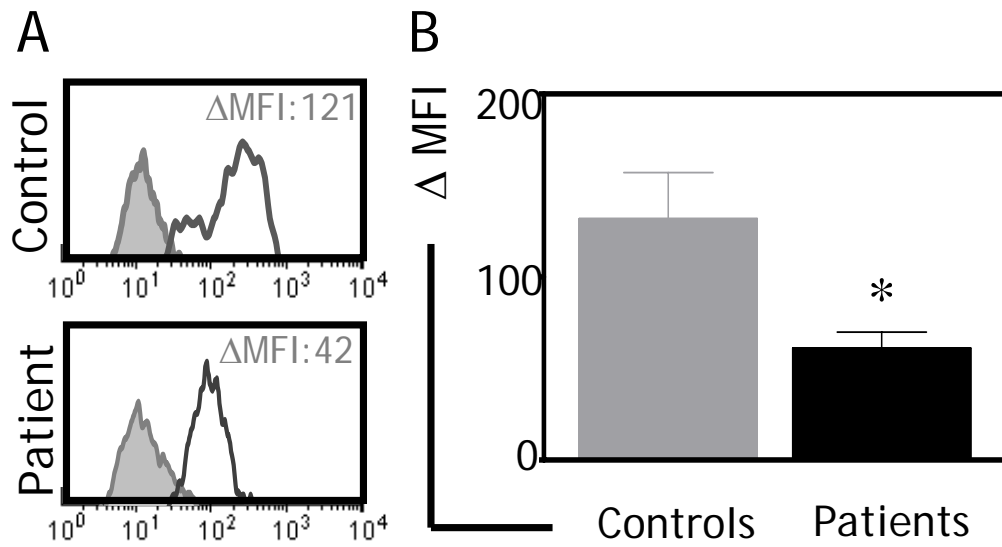
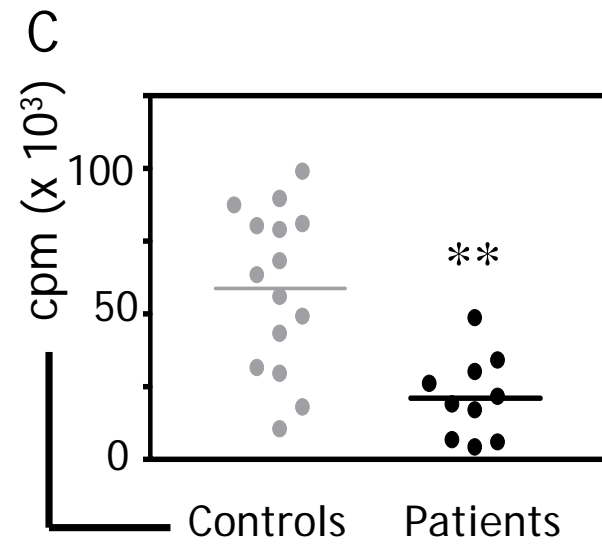


— ANTIGEN UPTAKE —



— PROLIFERATION —



**Impaired uptake and allo-stimulatory capacity of blood DC
from patients with breast cancer**

(A) To estimate antigen uptake, PBMC isolated from patients with breast cancer (Stage I-II; $n=13$) or healthy volunteers ($n=15$) were incubated with soluble FITC-conjugated tetanus toxoid (0.5 mg/mL) at either 4°C or 37°C. Cells were extensively washed and uptake by blood DC (Lin⁻ HLA-DR⁺ cells) estimated by flow cytometry as the difference in mean fluorescence intensity (Δ MFI) between the test (37°C, empty histograms) and the negative control (4°C, filled histograms). In all experiments, each patient was tested in parallel with at least one healthy volunteer. Representative histograms are shown. **(B)** Summary of antigen uptake data. The average antigen uptake (Δ MFI \pm standard error of the mean, SEM) by blood DC from all patients and healthy volunteers is shown accordingly. **(C)** To estimate allo-stimulatory capacity, blood DC purified (99% purity; MoFlo Sorter) from breast cancer patients (Stage I-II; $n=10$) or age-matched healthy volunteers ($n=15$) were individually tested against allogeneic T-cells obtained from a panel of healthy volunteers ($n=3$). The pairs giving maximal responses are shown as means of triplicate measurements of ³H-thymidine uptake at 1:30 DC:T ratio. Similar patterns of results were found for all DC:T ratios. Overall means are shown as horizontal lines and statistically significant differences between controls and patients are indicated * $p<0.05$, ** $p<0.01$. Altogether, these data show significantly reduced antigen uptake and allo-stimulatory capacity of blood DC from breast cancer patients compared to blood DC from healthy volunteers.