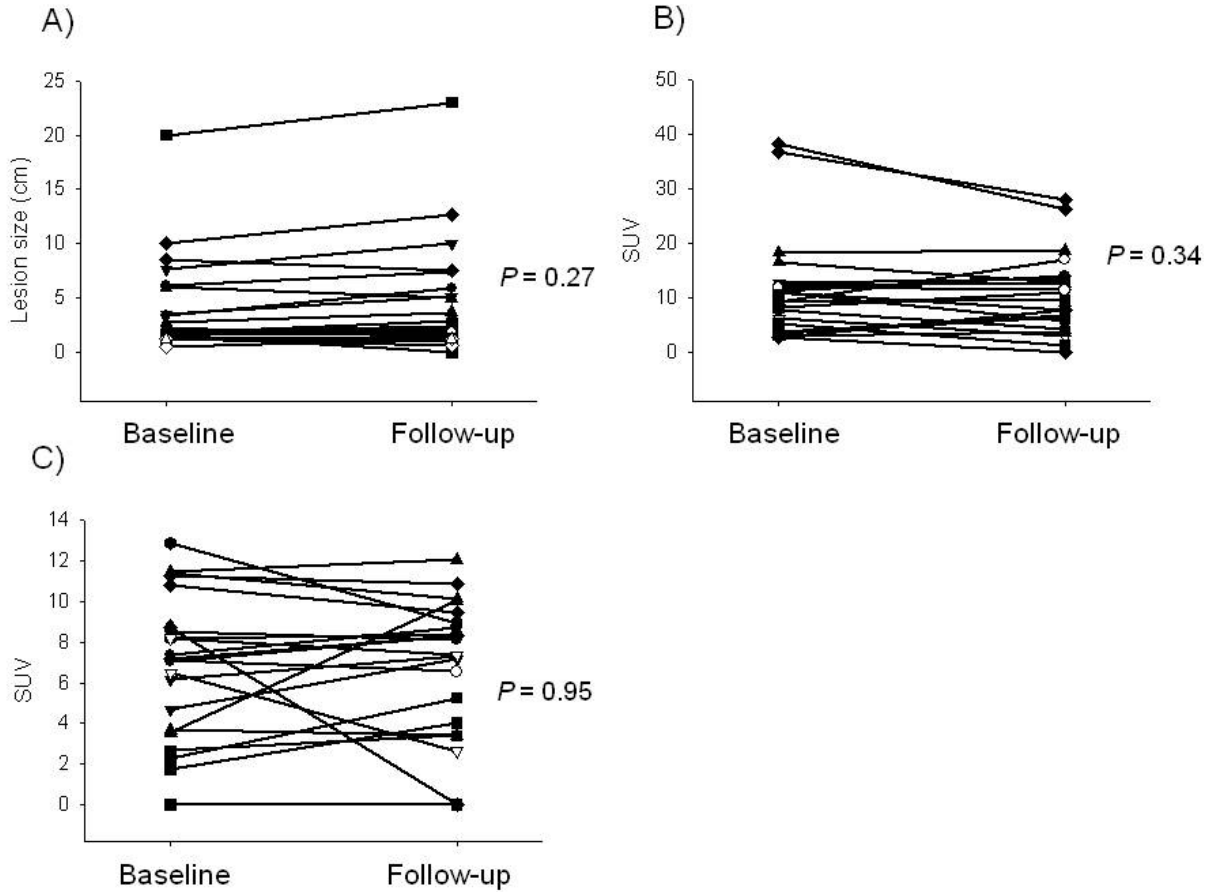
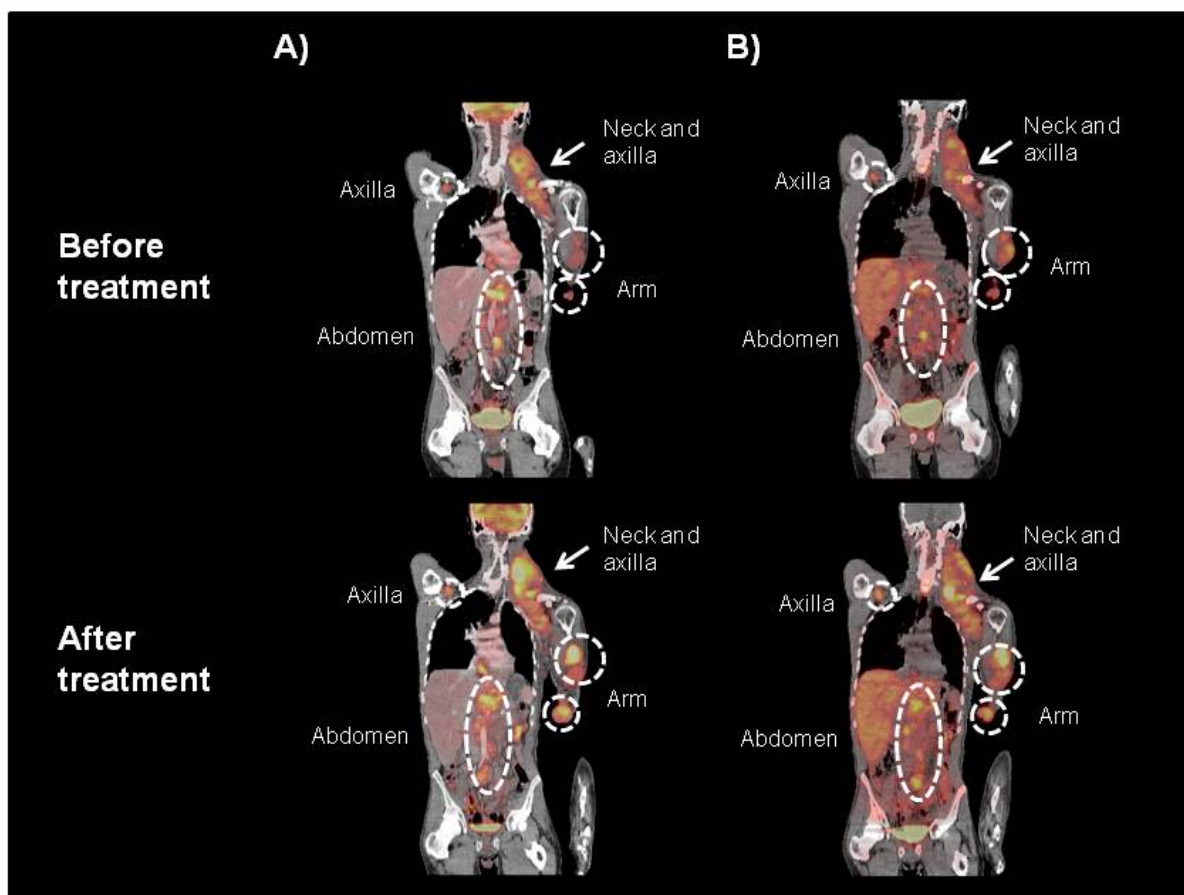


Supplemental Fig. 1



**Supplemental Figure 1. Analysis of tumor sizes by CT scans, and maximum standardized uptake values (SUVmax) for  $[^{18}\text{F}]\text{FDG}$  and  $[^{18}\text{F}]\text{FLT}$  PET scans in areas of metastatic melanoma.** A) Evolution of the size of metastatic lesions by CT scan size criteria between baseline scans (pre-dosing) and the follow up CT scans (post-dosing), both done at the same time as the  $[^{18}\text{F}]\text{FDG}$  PET scans. Individual metastatic lesions from the 9 eligible patients are followed between both time points. B) Evolution of the SUVmax for  $[^{18}\text{F}]\text{FDG}$  in metastatic lesions by PET scans. C) Evolution of the SUVmax for  $[^{18}\text{F}]\text{FLT}$  in metastatic lesions by PET scans. In all plots, open symbols represent values from the two patients with an objective response, and filled symbols for patients without an objective response at the formal restaging studies. P values reflect paired t-test analysis.

Supplemental Fig. 2



**Supplemental Figure 2. [ $^{18}\text{F}$ ]FDG and [ $^{18}\text{F}$ ]FLT PET/CT scans in a patient with metastatic melanoma and no clinical response to tremelimumab.** Fused images of PET/CT scans from patient GA30, a patient with a metastatic melanoma with bulky cutaneous, subcutaneous and nodal metastasis. A) [ $^{18}\text{F}$ ]FDG PET/CT scans before (top) and after (bottom) receiving tremelimumab. B) [ $^{18}\text{F}$ ]FLT PET/CT scans before (top) and after (bottom) receiving tremelimumab.