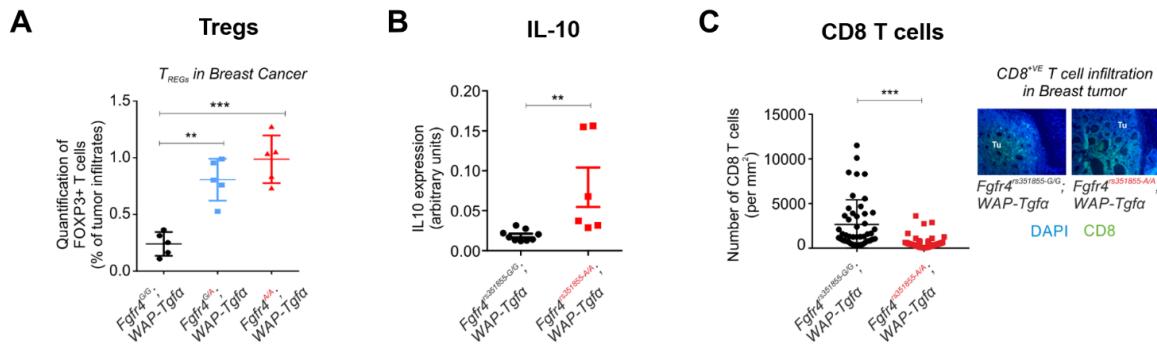
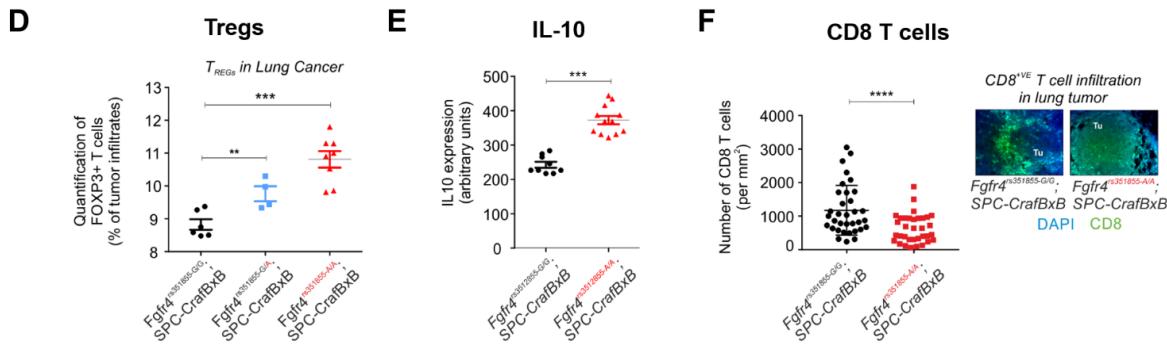


**Mouse model for breast cancer (WAP-Tgfa, mammary tumours post pregnancy)**



**Mouse model for non-small cell lung cancer (SPC-Craf-bxb, lung tumours)**



**Online Figure-3. STAT3 enhancing pTyr-SNV rs351855-specific suppression of the CD8/Treg ratio in the TME in SNV knock-in GEMM for breast and lung cancers.** (A) Numbers of CD4+CD25+FOXP3+ T cells in tumour-bearing breast tissue of Fgfr4rs351855-G/G;Wap-Tgfa, Fgfr4rs351855-G/A;Wap-Tgfa, and Fgfr4rs351855-A/A;Wap-Tgfa mice (mean  $\pm$  SEM, n = 5, \*\*P < 0.01, \*\*\*P < 0.001). (D) Numbers of CD4+CD25+FOXP3+ T cells in tumour-bearing lungs of Fgfr4rs351855-G/G;SPC-CrafBxB, Fgfr4rs351855-G/A;SPC-CrafBxB, and Fgfr4rs351855-A/A;SPC-CrafBxB mice (mean  $\pm$  SEM, n = 4–7, \*\*P < 0.01, \*\*\*P < 0.001). (B) Quantification of IL10 in serum of tumour-bearing Fgfr4rs351855-G/G;Wap-Tgfa and Fgfr4rs351855-A/A;Wap-Tgfa breast cancer mice (mean  $\pm$  SEM, n = 6–9, \*\*P < 0.01) and (E) tumour-bearing Fgfr4rs351855-G/G;SPC-CrafBxB and Fgfr4rs351855-A/A;SPC-CrafBxB lung cancer mice (mean  $\pm$  SEM, n = 8–12, \*\*\*P < 0.001) by ELISA. (C) Quantification of tumour-infiltrating CD8 T cells in tumour nodules by immunostaining for CD8 in breast tumour-bearing Fgfr4rs351855-G/G;Wap-Tgfa and Fgfr4rs351855-A/A;Wap-Tgfa mice and (F) lung tumour-bearing Fgfr4rs351855-G/G;SPC-CrafBxB and Fgfr4rs351855-A/A;SPC-CrafBxB (mean  $\pm$  SEM, n = 19–26, \*\*\*\*P < 0.0001, \*\*\*P < 0.001, 2-tailed unpaired t test with Welch's correction). Insets: Representative images from IF staining of tumour sections ( $\times 20$  magnification) depicting tumour-infiltrating CD8 T cells in lung and breast tumours (DAPI-blue, CD8-green). The red text in the figure denotes the rs351855-A allele (Kogan et al JCI 2018).