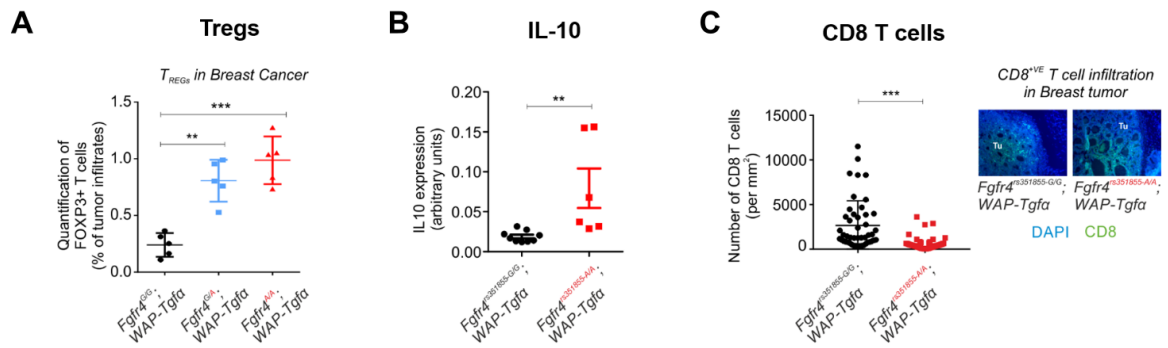
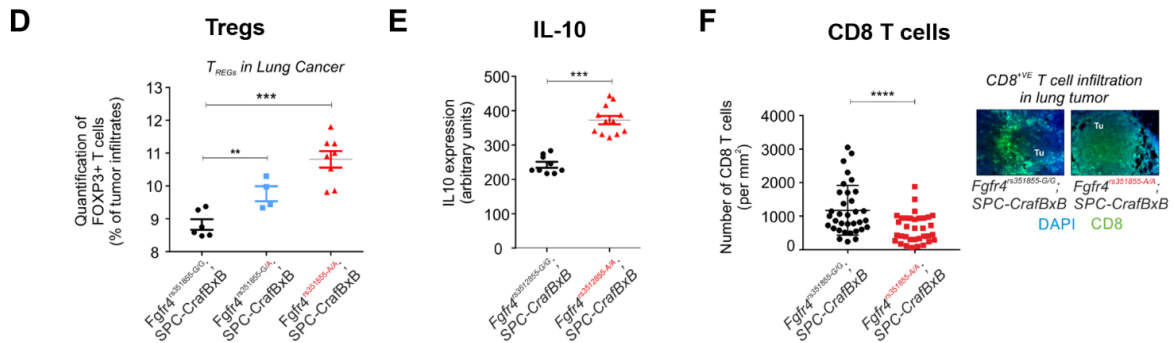


**Mouse model for breast cancer (WAP-Tgfa, mammary tumours post pregnancy)**



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



**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 tumor-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 tumor-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 tumor-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) tumor-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 tumor-infiltrating CD8 T cells in tumor nodules by immunostaining for CD8 in breast tumor-bearing Fgfr4rs351855-G/G;Wap-Tgfa and Fgfr4rs351855-A/A;Wap-Tgfa mice and (F) lung tumor-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 tumor sections ( $\times 20$  magnification) depicting tumor-infiltrating CD8 T cells in lung and breast tumors (DAPI-blue, CD8-green). The red text in the figure denotes the rs351855-A allele (Kogan et al JCI 2018).