B-cells and follicular T cells regulate responses to ICT in hypermutated tumors

Brief Synopsis:

This study reports on new mouse models of triple negative breast cancer (TNBC) that have high mutation burden and immune cell infiltrates. With these models comes a genomics resource of mRNAseq and scRNAseq data from immune checkpoint therapy (ICT) treated tumors from multiple models of TNBC. Results show that immune therapy triggers Tfh cell activation of B cells during the anti-tumor response, and highlight that B cells mediate a portion of the anti-tumor response to anti-PD1/anti-CTLA4 treatment. In addition genomic analysis of the TNBC mouse models identifies a signature that is able to predict ICT response in humans.