Suppression of epithelial IFNε in HGSOC and anti-tumor properties. a,b, IHC staining of human FT from two healthy women using rabbit anti-human IFNε (main image) or IgG control (inset), with haematoxylin counterstain (scale bars: 100 µm (a), 10 µm (b)). Images are representative of \( n = 20 \) individuals. c, Immunofluorescence staining of C57BL/6J mouse FT using anti-mouse IFNε (main image) or IgG control (inset), with DAPI counterstain. Image representative of \( n = 3 \) mice. Scale bar, 100 µm. d, mRNA expression of IFN genes in human FT epithelium (RNA-seq data derived from Australian Ovarian Cancer Study control samples\(^1\)). CPM, counts per million. e, Quantification of IHC staining for IFNε in control human FT epithelium (\( n = 20 \)), LGSOC (\( n = 6 \)), HGSOC (\( n = 30 \)) and ungraded serous samples (\( n = 28 \)). Data are mean intensity scores for each sample stained in technical duplicates on tissue microarrays.
Individual Mann–Whitney $U$ tests compared to healthy FT control tissue. f, IFNε transcript expression plotted as normalized expression (from RNA-seq analysis) of IFNε in Australian Ovarian Cancer Study samples ($n = 83$ HGSOC samples, $n = 7$ FT epithelium). Median expression in tumor samples is indicated by the dotted line. g,h, A syngeneic orthotopic model of ovarian cancer in wild-type (WT) and $Ifne^{-/-}$ mice (Methods). g. The total number of metastatic deposits in the peritoneal cavity at endpoint. Data are mean ± s.d. of individual data points, $n = 8$ wild-type and $n = 7$ $Ifne^{-/-}$ mice. Unpaired two-tailed $t$-test. h, Total numbers of specific immune cell populations detected in peritoneal lavage fluid. Data are mean of cell counts measured for each genotype in a stacked bar graph. NK, natural killer. Two-way ANOVA. ****$P$

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