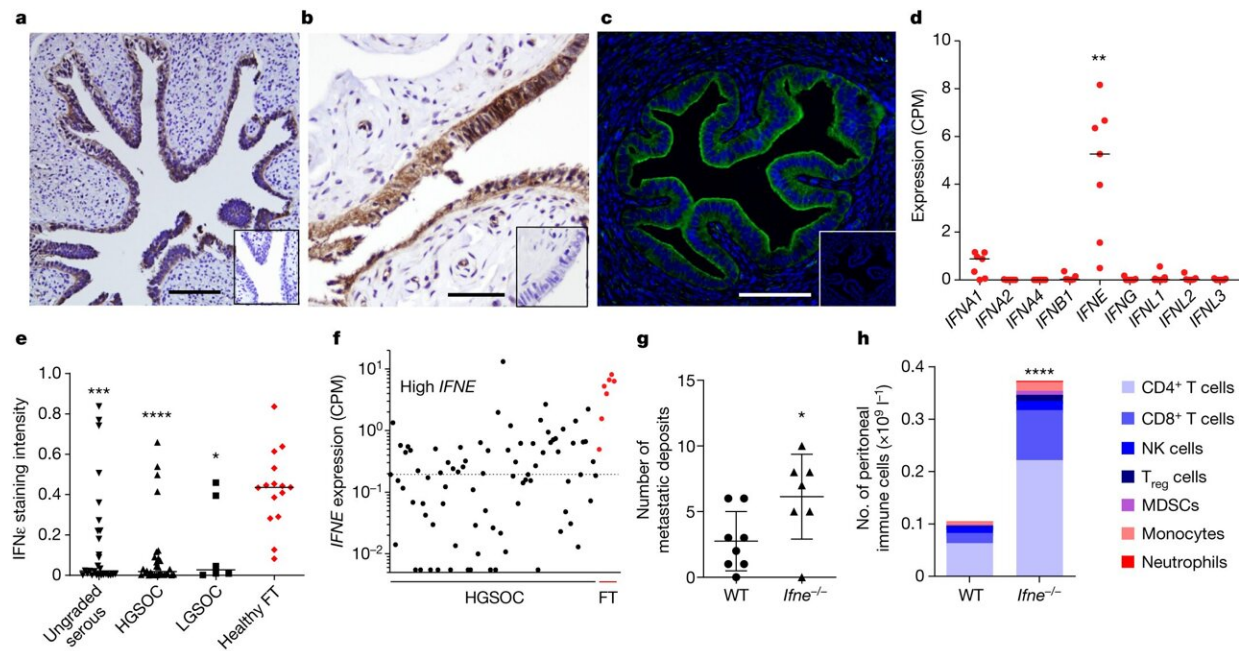


Using the immune system to stop ovarian cancer

August 16 2023



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 samples¹). 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**, IFN ϵ transcript expression plotted as normalized expression (from RNA-seq analysis) of IFN ϵ 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 \pm 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

Citation: Using the immune system to stop ovarian cancer (2023, August 16) retrieved 14 May 2024 from <https://medicalxpress.com/news/2023-08-immune-ovarian-cancer.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.