

## **Supplementary Figures**

### **Immune phenotype in high- versus low-NRF2 high grade serous ovarian cancer and the impact on prognosis**

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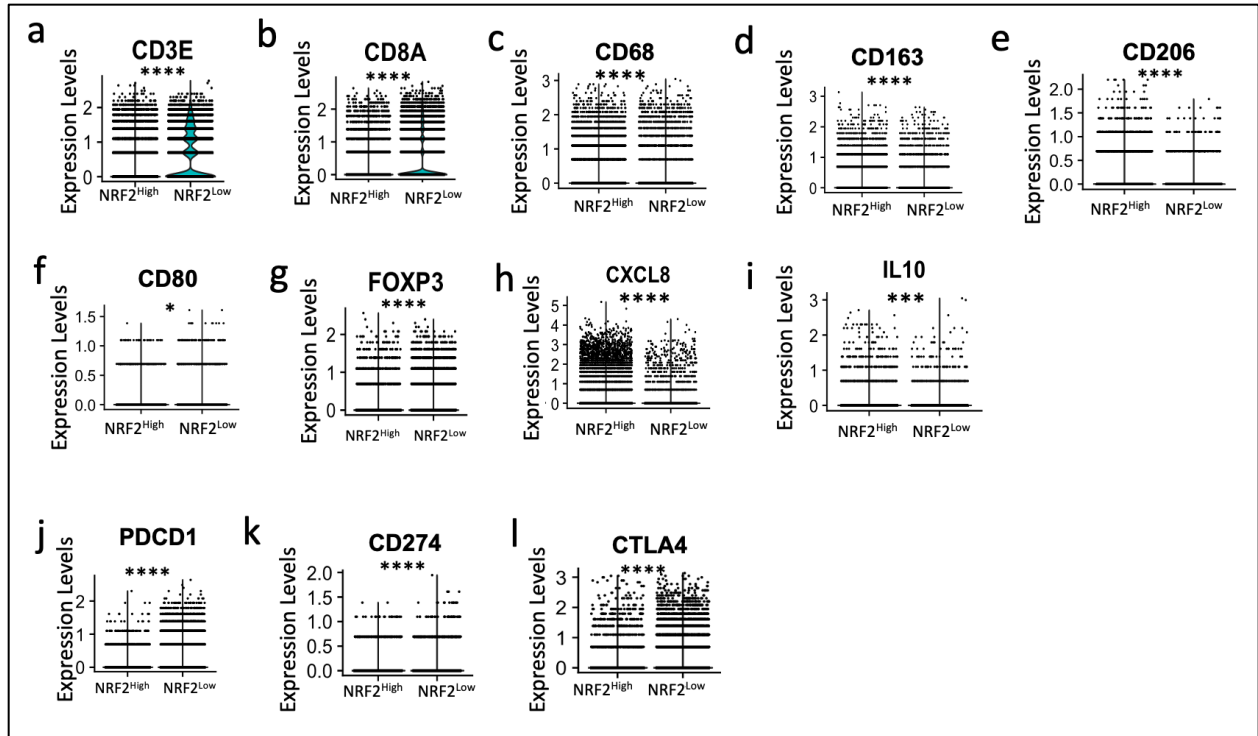
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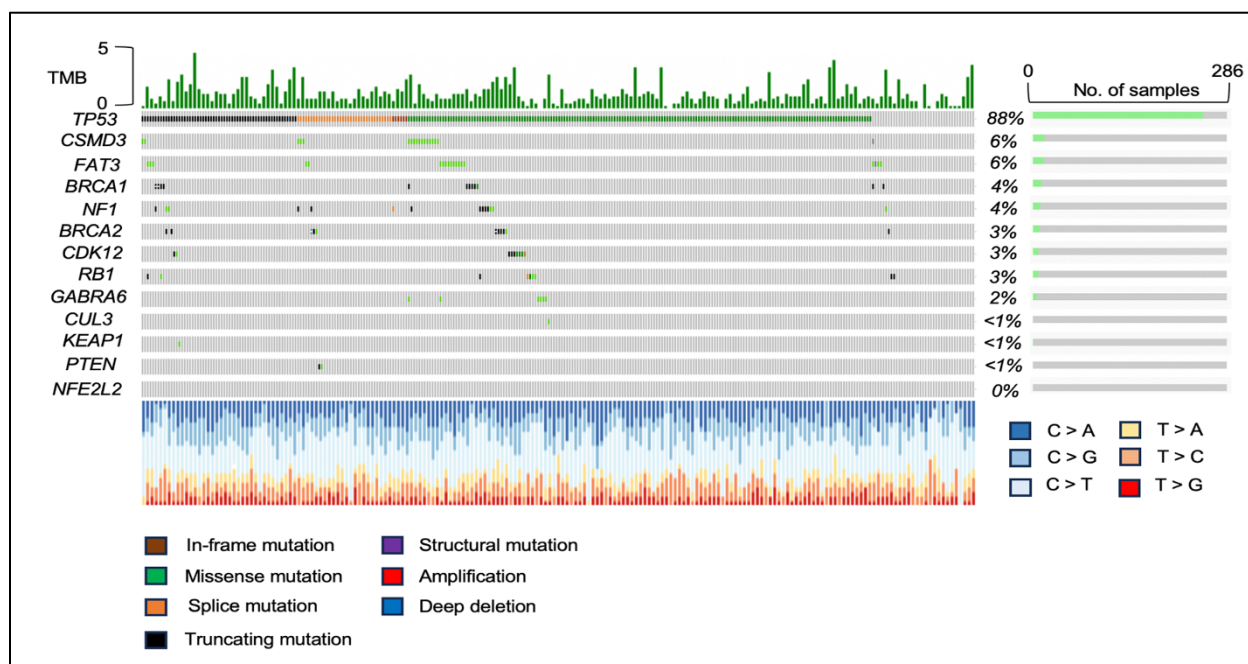
**# Equally contributed to this work**

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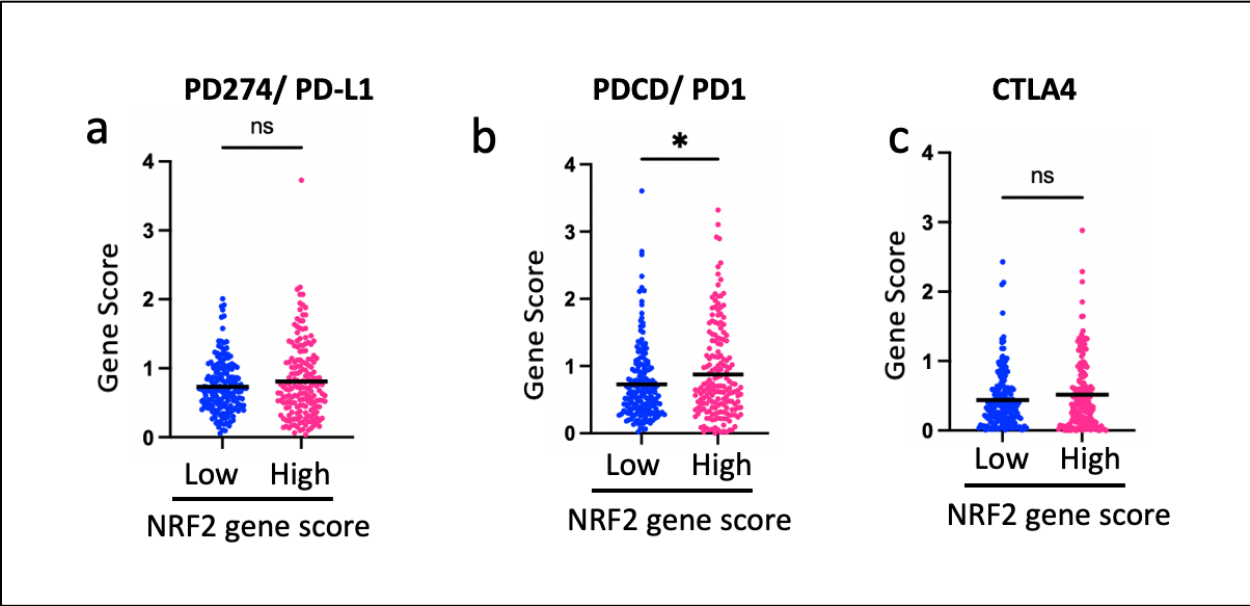
Samera Hamad, PhD: Cooper Medical School of Rowan University, Camden, NJ 08103, United States. Email. [hamad@rown.edu](mailto:hamad@rown.edu) or [samera3h@gmail.com](mailto:samera3h@gmail.com), Ph. 608-217-3839



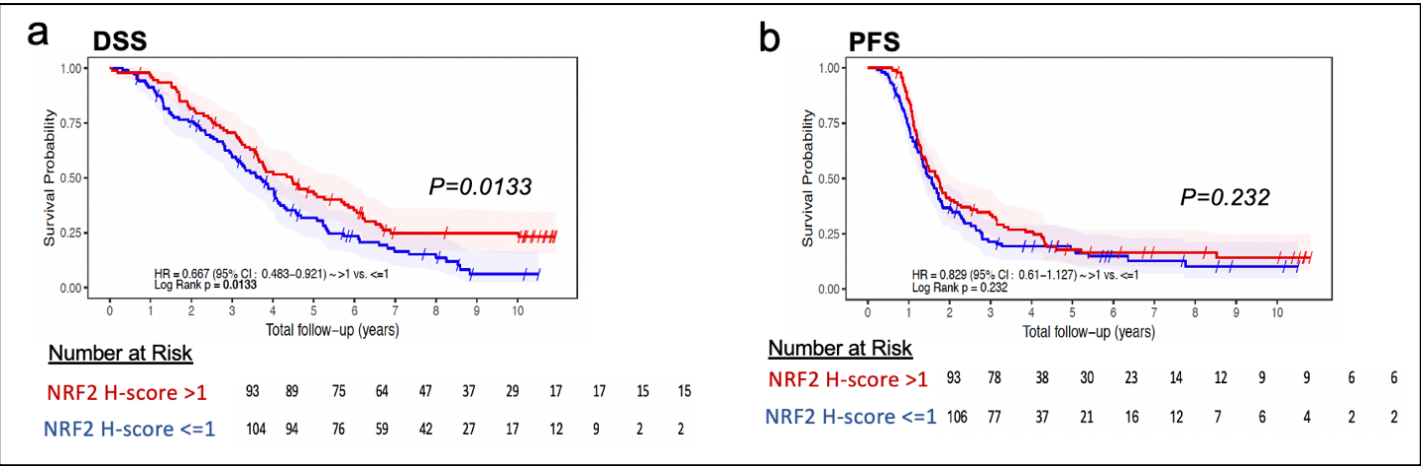
**Supplementary Figure 1. Single cell RNA-seq data analysis of 7 human HGSOC tumor samples show different immune markers and checkpoints in high (n=4) versus low (n=3) NRF2 HGSOC. a-b** Expression levels of T-cell markers (CD3E and CD8A), **c-f** Expression levels of macrophages markers (CD68, CD163, CD206, and CD80), **h-i** Expression levels of cytokines and chemokines, and **j-l** Expression levels of immune checkpoints in high versus low NRF2 samples, \*P<0.05, \*\*\*P<0.001, \*\*\*\*P<0.0001.



**Supplementary Figure 2. RNA-seq data analysis of HGSOC tumor samples from TCGA.** Major mutations in n=365 HGSOC tumor samples among which mutations in the queried genes were observed in n=286 samples. KEAP1-NRF2 pathways shows no mutations in this set of samples.



**Supplementary Figure 3. Higher expression of PD1 in high NRF2 HGSOC compared to NRF2 low tumors.** **a** No changes in expression levels of PD-L1 in high versus low NRF2 HGSOC, **b** significantly higher expression levels in PD1 in high compared to low NRF2 HGSOC, with **c** no significant changes in expression levels of CTLA4 in high versus low NRF2 HGSOC.



**Supplementary Figure 4.** Survival of HGSOC patient samples with NRF2<sup>High</sup> (H-score >1) and NRF2<sup>Low</sup> (H-score <=1) HGSOC. **a** Significantly higher disease-specific survival (DSS) of patients with NRF2<sup>High</sup> HGSOC compared to patients with NRF2<sup>Low</sup> HGSOC, but **b** no significant change in progression-free survival (PFS) between patients with NRF2<sup>High</sup> and those with NRF2<sup>Low</sup> tumors.