# Article information:

In vivo CRISPR screens identify the E3 ligase Cop1 as a modulator of macrophage infiltration and cancer immunotherapy target - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/34582788/>

# Article summary:

1. An in vivo CRISPR screen identified the E3 ligase Cop1 as a modulator of macrophage infiltration and cancer immunotherapy target.

2. Cop1 functions through proteasomal degradation of the C/ebpδ protein, which leads to polyubiquitination of C/ebpδ and stabilizes it to suppress expression of macrophage chemoattractant genes.

3. Deletion of Cop1 in cancer cells decreases secretion of macrophage-associated chemokines, reduces tumor macrophage infiltration, enhances anti-tumor immunity, and strengthens ICB response.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article is generally reliable and trustworthy due to its use of an in vivo CRISPR screen to identify the E3 ligase Cop1 as a modulator of macrophage infiltration and cancer immunotherapy target. The authors provide evidence for their claims by performing transcriptomics, epigenomics, and proteomics analyses that reveal how Cop1 functions through proteasomal degradation of the C/ebpδ protein. Furthermore, they demonstrate how deletion of Cop1 in cancer cells decreases secretion of macrophage-associated chemokines, reduces tumor macrophage infiltration, enhances anti-tumor immunity, and strengthens ICB response.

The article does not appear to have any biases or one-sided reporting as it presents both sides equally with no promotional content or partiality. It also does not make any unsupported claims or missing points of consideration as all claims are backed up by evidence from the experiments performed by the authors. Additionally, there are no unexplored counterarguments or missing evidence for the claims made as all arguments are thoroughly explored with sufficient evidence provided for each claim made. Finally, possible risks are noted throughout the article so readers can be aware when considering potential treatments based on this research.

# Topics for further research:

* Cancer immunotherapy
* Macrophage infiltration
* C/ebpδ protein
* Proteasomal degradation
* Anti-tumor immunity
* ICB response

# Report location:

<https://www.fullpicture.app/item/5bffbda3180a215cd0c9ba442f44c00f>