# Article information:

Intratumoral CD8+ T cells with a tissue-resident memory phenotype mediate local immunity and immune checkpoint responses in breast cancer - ScienceDirect
<https://www.sciencedirect.com/science/article/pii/S1535610823000041?via%3Dihub>

# Article summary:

1. Intratumoral CD8+ T cells in murine triple-negative breast cancer (TNBC) consist of both terminal exhaustion-like and tissue-resident memory-like cells.

2. Dual immune checkpoint blockade therapy augments and enhances the killing capacity of tissue-resident memory-like cells, providing local tissue protection from TNBC tumor rechallenge.

3. A tissue-resident memory signature is associated with better treatment outcomes in TNBC patients treated with checkpoint inhibitors.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Intratumoral CD8+ T Cells with a Tissue-Resident Memory Phenotype Mediate Local Immunity and Immune Checkpoint Responses in Breast Cancer” is a well written and comprehensive review of the role of CD8+ TRM cells in breast cancer, particularly in the context of immune checkpoint blockade and immunosurveillance. The authors provide evidence from both mouse models and human studies to support their claims, which adds to the trustworthiness of the article. Furthermore, they provide detailed descriptions of their methods, which allows for replication by other researchers if desired.

However, there are some potential biases that should be noted when considering this article. Firstly, the authors focus primarily on the positive effects of CD8+ TRM cells on breast cancer treatment outcomes, without exploring any potential risks or negative effects that may be associated with these cells. Additionally, while they do mention that CD8+ TRM cell differentiation is dependent on molecular cues distinct from those that drive circulating CD8+ T cell populations, they do not explore any potential differences between these two populations in detail or discuss how these differences may affect treatment outcomes. Finally, while the authors provide evidence from both mouse models and human studies to support their claims, it should be noted that results obtained from animal models may not always translate directly to humans due to physiological differences between species.

In conclusion, this article provides an informative overview of the role of CD8+ TRM cells in breast cancer treatment outcomes and is generally reliable and trustworthy; however there are some potential biases that should be taken into consideration when evaluating its content.

# Topics for further research:

* CD8+ T cell differentiation
* Immune checkpoint blockade risks
* Molecular cues in CD8+ T cells
* Differences between circulating and tissue-resident CD8+ T cells
* Translating animal model results to humans
* Immunosurveillance in breast cancer

# Report location:

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