

Tumor-associated neutrophils boost anti-tumor immune responses

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Lung cancer is a leading cause of cancer-related deaths in both men and women, and survival depends on the stage of cancer at diagnosis. An inflammatory response is induced following tumor formation, and the immune cells that are part of this response influence disease progression. In lung cancers, tumor-associated neutrophils (TANs) are part of the inflammatory cell population found in the lung tumor microenvironment, but the role of these cells in tumor progression is unclear.

A new study in the *Journal of Clinical Investigation* suggests that TANs help bolster the immune response against [lung tumors](#). Evgeniy Eruslanov and colleagues at the University of Pennsylvania evaluated tumors isolated from [lung cancer patients](#) undergoing surgical tumor resections. TANs accounted for 5-25% of cells within the lung tumors. These cells produced a unique set of molecules that promote inflammation. Importantly, Eruslanov and colleagues demonstrated that [lung cancer](#) TANs do not suppress inflammation, but promote anti-tumor responses.

The results from this study suggest that strategies to bolster TANs should be explored for cancer immunotherapy.

More information: Tumor-associated neutrophils stimulate T cell responses in early-stage human lung cancer, *J Clin Invest.* [DOI: 10.1172/JCI77053](https://doi.org/10.1172/JCI77053)

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