Study identifies a potential therapeutic target for lung cancer

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Small-cell lung cancer (SCLC) is one of the deadliest types of cancer, and it has been several decades since new treatment options have been approved for this disease. Although recent advances in cancer treatments have focused on promising therapies that trigger the immune system to attack cancer cells, no immunological approaches have been developed to treat SCLC.

In this month's issue of the *JCI*, a team led by Julian Sage and Irving Weissman at Stanford University identified a molecular target that may stimulate a patient's own immune system to destroy lung tumors. They determined that a protein called CD47 is highly expressed on the surface of SCLC cells. Although CD47 is also found in healthy cells, its expression on cancerous cells can help hide tumors by inhibiting the immune system. In the study, a treatment that blocked CD47 enabled the immune system to target and destroy SCLC cells, which prevented tumor growth in a mouse model.

These findings suggest that CD47 may be an effective target for immunological therapies for SCLC, and supports the development of similar approaches for treating other types of cancer.

More information: Kipp Weiskopf et al, CD47-blocking immunotherapies stimulate macrophage-mediated destruction of small-cell lung cancer, *Journal of Clinical Investigation* (2016). DOI: 10.1172/JCI81603

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