



## Can vitiligo help prevent melanoma from coming back?

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### Why we did this research

Vitiligo is the development of patches of very light-colored skin. People develop vitiligo due to our immune cells killing melanocytes (our cells that make skin pigment) causing them to turn white. Patients who get immunotherapy for their melanoma (a type of skin cancer) and who have vitiligo have good survival and do well, but we don't know why.

### What we did

Melanoma survivors were identified who had vitiligo, and they donated skin, tumor, and blood specimens. We took them into the lab, and we took T-cells (cells in your body that protect against infections and cancer) out of them and used a new technology to find cancer-fighting T-cells. In some patients, we looked over many years to see if the cancer-fighting T-cells hung around.



Here is an example of vitiligo.

### What we have learned so far

Patients who developed vitiligo had the cancer-fighting T-cells in their skin years after treatment. They had the same T-cells in their blood, too.

### Why this is important

We are learning more about how our bodies' immune systems are able to keep cancers like melanoma at bay. This has changed our way of thinking about where immune cells are found in the body, and we will continue looking at specimens to see where these cancer-fighting T-cells are found.

Our research was funded by the National Cancer Institute and the Knights of the York Cross of Honor.