Immunotherapy breakthrough? CRISPR-edited immune cells proven safe for use in cancer patients in early stage trial

Now for the first time in the U.S., researchers say they've shown that CRISPR-edited immune cells can be safely given to cancer patients and survive for up to nine months—a finding that may signal CRISPR's future as part of an emerging cancer treatment known as immunotherapy.

. .

One significant concern was that since an important enzyme used by CRISPR is derived from bacteria, the introduction of CRISPR-edited <u>T cells</u> into the body could cause an immune response; this might then kill off the cells before they even got to work on a tumor. In the three patients they studied, all of whom had advanced cancer that hadn't responded well to treatment, there was also the worry that their immune systems were so damaged by earlier therapies that the T cells wouldn't survive for long.

"We found just to the contrary—that we have much longer survival of these cells. And at very high levels that have been really strong," [researcher Carl] June said.

. . .

The study is a Phase 1 clinical trial, meaning it was solely meant to test whether the approach is safe to use in people. So we can't say yet whether CRISPR truly can boost the effectiveness and safety of TCR or other T cell immunotherapies.

Read the original post