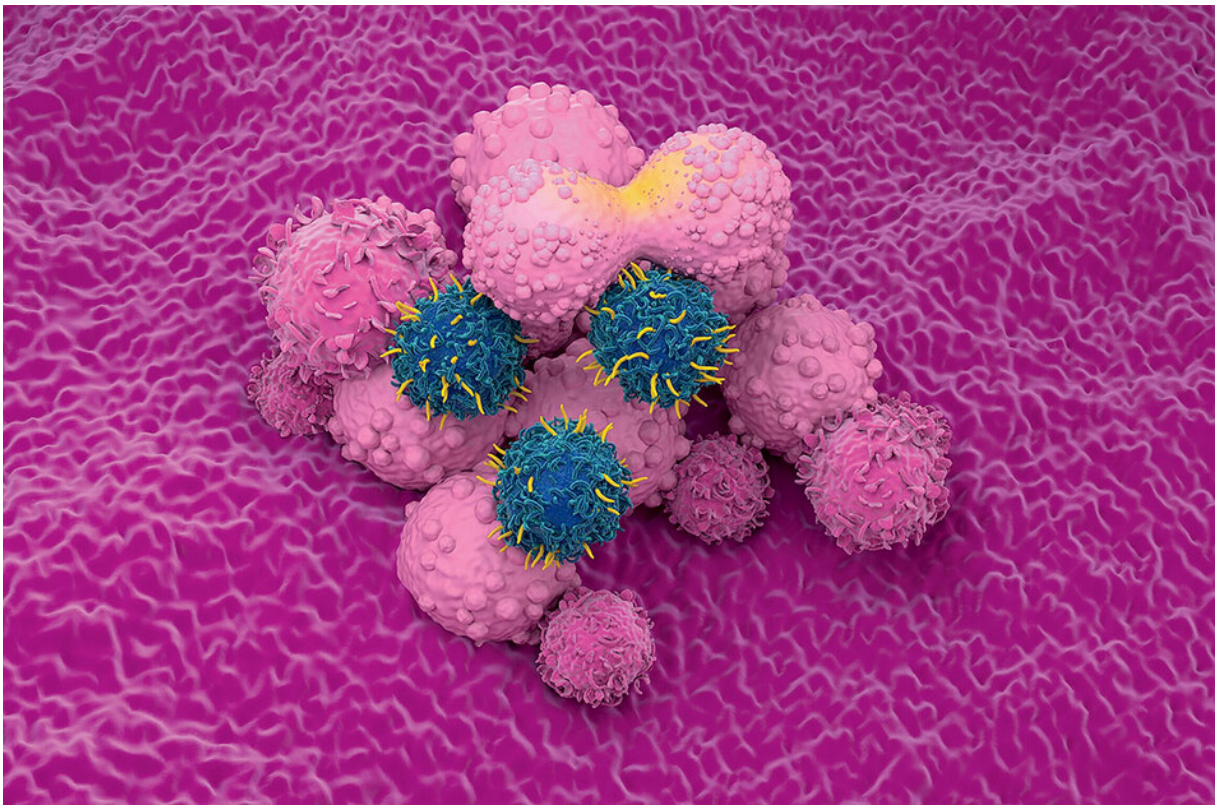
Health & Medicine

A New Immunotherapy Breakthrough for Solid Tumors

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Artist rendering of genetically modified immune cells (blue) attacking cancer. (Nemes Laszlo / Science Photo Library)

A team of Columbia scientists led by Michel Sadelain, who pioneered a type of immunotherapy that has revolutionized the treatment of many blood cancers over the past decade, has achieved a new breakthrough that may extend the approach to solid tumors.

In a recent issue of *Science*, the scientists report that a new form of immunotherapy they've developed can defeat human kidney, pancreatic, and ovarian tumors grafted onto mice. The treatment is similar to Sadelain's most significant innovation, CAR T-cell therapy, which genetically engineers a patient's own immune cells to attack

cancerous ones. But whereas CAR T therapy works primarily against leukemias and lymphomas, the new approach appears to be effective against a much broader range of malignancies. It involves removing immune cells from a patient’s body, engineering them into what the scientists call HITs (short for HLA-independent T-cell receptors, which can recognize antigens on the surface of cancer cells), and then infusing the HITs into the body to seek out and destroy tumors.

The scientists hope to soon begin testing the therapy in people.



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