

Ready to start planning your care? Call us at [800-525-2225](tel:800-525-2225) to make an appointment.

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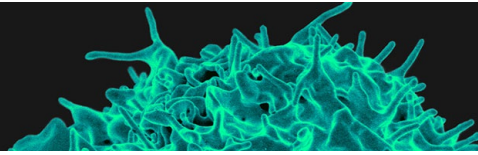
Memorial Sloan Kettering  
Cancer Center

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**Cancer is smart, but your immune system is smarter.**

That's why, for more than 120 years, MSK scientists have been fighting cancer with immune cells.

## Immunotherapy at MSK

At Memorial Sloan Kettering, we believe that immunotherapy is one of the most promising ways to treat, cure, and ultimately prevent cancer.

Immunotherapy was born at MSK more than a century ago. Since then our scientists have led the effort to develop new immune-based treatments for cancer. Our researchers have been at the epicenter of new discoveries in the field, and their work is bringing [exciting new treatment options](#) to people with cancer.

Patients who come to MSK for [immunotherapy treatment](#) benefit from unparalleled expertise in a field that our scientists pioneered.





[Michel Sadelain, MD, PhD](#), is an expert in immunotherapy credited with co-developing chimeric antigen receptor (CAR) T cell therapy, whereby a patient's T cells are modified to target and kill cancer cells.



Discoveries made in the lab of Immunology Program Chair [Alexander Rudensky](#) have changed the field of immunology.

## How We Care for Patients

Our immunotherapy patients benefit from the close collaboration between our doctors and scientists.

Discoveries in the lab are constantly being translated into new therapies for patients.

We're currently running nearly 100 immunotherapy-focused [clinical trials](#).

Our experts are seeking out new ways to help the immune system recover after a [bone marrow transplant](#).

Our science has already begun to change how [melanoma](#), [leukemia](#), and [lung, bladder](#), and [kidney](#) cancers are treated.

MSK is home to a diverse group of scientists who study the immune system in all its complexity. Our [laboratory scientists](#) include many immunologists, geneticists, and cell biologists who explore the biology of immune cells and their interactions with tumors and infectious organisms.

Our physician-scientists are developing groundbreaking immune therapies that are helping to treat several forms of advanced cancer. They have played a lead role in developing and testing the immunotherapy drugs known as [checkpoint inhibitors](#) that “release the brakes” on the immune system, allowing it to mount a stronger attack against cancer. These drugs are transforming the way many cancers are treated, among them melanoma, lung, bladder, and kidney cancers.

MSK scientists have also led the way in using [chimeric antigen receptor \(CAR\) T cell therapy](#) to treat leukemia and certain solid tumors. In this approach, immune cells from a patient are removed from the body, armed with new proteins that recognize cancer, and given back to the patient in large numbers.

MSK is a leader as well in bone marrow transplantation for children and adults with blood cancers such as leukemia.

VIDEO | 01:20

The immune system can help fight cancer.

[Video Details](#) →



[Margaret Callahan](#) leads clinical trials that give MSK patients access to immune checkpoint blockade therapies.

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## Where Immunotherapy Began

Memorial Sloan Kettering's roots in immunotherapy extend all the way back to 1893, when bone surgeon and cancer researcher William Coley began his work here on bacterial vaccines.

In the decades that followed, MSK scientists put cancer immunotherapy on firm scientific footing. Their many discoveries have helped make immunotherapy what it is today.

View our timeline of progress to see how MSK scientists have been at the forefront of immunotherapy research for more than 120 years.

Timeline Transcript

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## Programs and Collaborative Centers

Immunity science at MSK spans one academic program and five collaborative research centers, including the [Parker Institute for Cancer Immunotherapy](#).

The Parker Institute, established by tech entrepreneur Sean Parker, brings together top researchers in the field from Memorial Sloan Kettering and five other founding partner institutions, with the aim of speeding the discovery and development of new immunotherapy treatment options.

Medical oncologist Jedd Wolchok has played a central role in developing and testing the immunotherapy drugs known as checkpoint inhibitors. Director [Marcel van den Brink](#) is a world-renowned expert on [cell-based immunotherapy](#) and bone marrow transplantation.





MSK patient Karen Koehler decided to give back after she was successfully treated with immunotherapy. Shortly after she completed CAR T cell therapy, she had her golden retriever, CJ, certified as a therapy dog. [Read her story.](#)



In the lab of immunologist [Andrea Schietinger](#) (center), whose work is focused on the interaction of T cells and cancer.

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