

A Patient's Guide to Cancer Immunotherapy

From a Patient's Perspective



Brendan Connors
Melanoma Survivor

My name is Brendan Connors, and I'm a stage 4 metastatic melanoma survivor.

I was diagnosed in 2011, when treatment options were limited and uncertain. I was fortunate to get into two immunotherapy clinical trials: first at the National Institutes of Health (NIH) and the National Cancer Institute (NCI), where I started on interleukin-2 (IL-2), and later at Memorial Sloan Kettering Cancer Center, where I received a combination of ipilimumab (Yervoy®) and nivolumab (Opdivo®).

I've been cancer-free since completing treatment.

When I was diagnosed at 27, I didn't even know how many stages of cancer there were. It was a lot to process when my doctor said "stage 4 metastatic" and explained that it meant the cancer had spread from its original area.

At the time, these immunotherapies were still being studied, and there were many unknowns. My doctors didn't always have clear answers about timelines or what I should expect. But by participating in clinical trials, I was helping build that knowledge in real time. I was always willing to provide additional samples and data, because I understood it could help future patients with melanoma or other types of cancer.

One message I want to share is this: you are not alone. There is a community of patients, care teams, and clinicians to help and support you, and scientists are working toward better outcomes. It's going to sound cliché, but stay positive. I wore a Superman shirt to treatment. That mindset? It matters.



Starting With What You Need to Know

Hearing the words “*You have cancer*” can be overwhelming. You may feel scared, confused, or uncertain about what comes next. These feelings are not unexpected — and you are not alone. You don’t have to become an expert overnight.

Every cancer journey is different, and there are more treatment options than ever before. This guide from the Cancer Research Institute (CRI) is designed to help you understand a treatment option called immunotherapy, how it may fit into your cancer treatment plan, and what questions you may want to ask your health care team along the way.



Getting a Diagnosis: What is Cancer?

What is cancer?

Cancer is a disease that begins when cells grow and divide in an uncontrolled way. These abnormal cells can form a tumor, invade nearby tissues, or spread to other parts of your body. There are many types of cancer, and each can behave differently. Your diagnosis may include information about where the cancer started, whether it has spread, and if it has specific features that can help guide treatment decisions.

What does staging mean?

Staging describes how advanced a cancer is. It may be based on the size of the tumor, whether cancer has spread to nearby lymph nodes, and whether it has spread to other parts of your body.

Understanding the stage of the cancer can help your health care team recommend treatment options, including whether immunotherapy may be appropriate.

Why does tumor testing matter?

Tests such as a biopsy, imaging scans, and biomarker or genetic testing can provide important information about the cancer. These results can help your health care team understand how the cancer may behave and whether certain treatments, including immunotherapy, are more likely to work.



Making a Decision:

Understanding Immunotherapy

What are the main types of cancer treatment?

There are several types of cancer treatments, and each works in a different way. Many patients will receive a combination of treatment types, such as surgery, radiation, chemotherapy, or immunotherapy.

- **Surgery** removes tumors or cancerous tissues and is often used when cancer is localized, or has not spread.
- **Radiation** uses targeted energy to damage cancer cells and can be delivered outside or inside your body.
- **Chemotherapy** uses drugs to kill fast-growing cells, including cancer cells, and can be given through an IV (intravenous), injection, or as a pill.
- **Immunotherapy** helps your immune system recognize and attack cancer and may be delivered through an IV, injection, topical treatment, or oral medication.

What is immunotherapy, and how does it work?

Immunotherapy uses your body's own immune system to help detect and fight cancer. Your immune system can recognize abnormal cells and adapt over time — but cancer can sometimes evade detection.

Immunotherapy helps restore or strengthen your immune response. Some immunotherapies provide additional tools (like antibodies or proteins), while others help remove barriers that prevent immune cells from attacking cancer. Immunotherapy is sometimes also called immuno-oncology.

What types of cancers can immunotherapy treat?




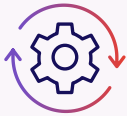
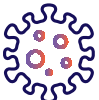

Immunotherapies are used to treat more than 35 different types of cancers, including melanoma, lung, colorectal, bladder, and many blood cancers. As of 2025, the U.S. Food and Drug Administration (FDA) has approved more than 40 immunotherapies, and there are ongoing clinical trials for nearly every type of cancer.

What tests are needed before starting immunotherapy?

Your health care team considers many factors, including cancer stage, overall health, and prior treatments, before recommending a treatment plan. Your doctor may also order imaging scans, a biopsy, or further lab testing, such as biomarker or genetic testing, to see if the cancer has certain features or unique characteristics. In some cases, these results can determine whether immunotherapy is likely to be effective or whether another option may be a better fit.

What types of immunotherapy treatments are available?

There are several types of immunotherapies, and each works in a different way:

Types of Immunotherapies	How they work with your immune system	What types of cancer they treat
 <p>Immune checkpoint inhibitor (ICI)</p>	ICIs help your immune system recognize and attack cancer cells. They block proteins called checkpoints that can stop your immune cells from responding to cancer.	ICIs are approved for many cancer types, including melanoma, lung, bladder, kidney, head and neck, colorectal, liver, and some blood cancers.
 <p>Bispecific antibody</p>	Bispecific antibodies are designed to attach to two targets at the same time. One part may bind to a cancer cell while the other may connect to an immune cell, bringing them close enough for the immune cell to attack.	Bispecific antibodies are approved for some blood cancers, including leukemia, lymphoma, and multiple myeloma, as well as a small number of solid tumors.
 <p>Cell and gene therapy</p>	Cell and gene therapies strengthen or reprogram your immune system to fight cancer. They work by modifying immune cells or genes either inside your body or in the laboratory so immune cells can better find and attack cancer.	Cell and gene therapies are most often used for blood cancers such as leukemia, lymphoma, and multiple myeloma. Some are also approved for certain solid tumors, including bladder cancer, melanoma, and sarcoma.
 <p>Non-ICI immunomodulator</p>	Non-ICI immunomodulators boost or adjust immune system activity. Some help immune cells grow, while others strengthen immune signaling so your body can mount a stronger response.	Non-ICI immunomodulators may be used for certain skin cancers, bladder cancer, kidney cancer, melanoma, leukemia, and lymphoma.
 <p>Oncolytic virus therapy</p>	Oncolytic viruses are modified viruses that infect and destroy tumor cells. As cancer cells break apart, they may also help alert your immune system to attack cancer.	One oncolytic virus therapy has been approved for cancer treatment (melanoma). It uses a modified herpes simplex virus (HSV) that infects cancer cells and promotes their destruction.
 <p>Cancer vaccine</p>	Cancer vaccines help train your immune system to recognize and attack cells with cancer-related markers. Some vaccines help prevent cancer, while others are used to treat existing cancer.	Only two vaccines have been approved: a bladder cancer vaccine that uses weakened bacteria and a prostate cancer vaccine made of your own stimulated immune cells.

How much does immunotherapy cost, and will my insurance cover it?

Immunotherapy can be expensive, often ranging from \$100,000 to \$200,000 or more per year. Many insurance plans, including Medicare and Medicaid, cover FDA-approved treatments. If you're uninsured or underinsured, you can ask your health care team about financial aid, treatment assistance programs, or clinical trials.

Can immunotherapy cure cancer?

Immunotherapy is a very effective treatment for many patients, but it doesn't always work for everyone. For some people, immunotherapy can lead to long-term remission, while for others, it may help control cancer or extend survival. Your doctor can help you better understand what to expect in your situation.



What to Expect: Starting Treatment

How is immunotherapy given?

Immunotherapy is often given through an IV in a doctor's office, outpatient clinic, hospital, or cancer center. Treatment schedules and duration vary but are often scheduled every two to six weeks and last about 30 minutes to a few hours.

Immunotherapies can also come in the form of pills, topical creams that are applied to your skin, or be given directly into your bladder (intravesical). Your health care team will talk with you about what to expect during treatment visits.

What are the possible side effects of immunotherapy?

Immunotherapy side effects are different from other cancer treatments. They can appear early, within days of starting treatment, but they usually develop several weeks or months later. The most common ones are fatigue and skin reactions, including rash, itchiness, and redness. Some patients may experience diarrhea, flu-like symptoms, and mouth sores.

More serious side effects (caused by an overactive immune response) are less common but can affect organs such as the colon, liver, lungs, or hormone-producing glands. It's important to let your health care team know about any new or worsening side effects.

How will I know if treatment is working?

Your health care team will monitor your progress through regular follow-up visits, which may include imaging scans (such as CT or MRI), blood tests, and sometimes scopes or biopsies. Immunotherapy may take longer to show results than other treatments. In some cases, tumors may initially appear larger before shrinking.

Your doctor will look at scan results alongside lab findings and ask how you're feeling overall to determine whether treatment is helping. They'll also explain what "response" means in your specific situation and how often you'll be monitored.

How long will I need to stay on immunotherapy?

Some people receive treatment for a few months, while others continue for a year or longer. It will depend on the type of cancer you have, the specific immunotherapy your doctor prescribes, and your care plan. In some cases, benefits may last even after treatment ends because the immune system can "remember" cancer cells.

How will getting immunotherapy affect my daily life?

You may be able to maintain daily routines, including work and exercise, during treatment, though your energy levels may fluctuate. It is generally important to stay hydrated and eat a balanced diet, stay as physically active as you are able, avoid alcohol and smoking, manage stress (such as through yoga, mindfulness, or support groups), and get plenty of rest.



Looking and Living Forward: Post-Treatment Support

What ongoing care will I need?

After treatment, you'll continue to have regular checkups to monitor for recurrence and manage any long-term side effects. Follow-up care may include physical exams, blood tests, imaging scans, and conversations about how you're feeling physically and emotionally.

What if immunotherapy doesn't work or the cancer comes back?

Not everyone responds to immunotherapy, and you may feel discouraged if the results aren't what you hoped for. If the treatment isn't effective or the cancer returns, your doctor may recommend a different therapy, a combination approach, or a clinical trial.

What are clinical trials, and how do they work?

Clinical trials are carefully monitored research studies that test new treatments. They may offer access to promising therapies that are not yet approved by the FDA. You can talk with your health care team about clinical trials or use tools like CRI's Clinical Trial Finder to explore options that may be a good fit.

Where can I find support from others who have had immunotherapy?

Connecting with other people who have had immunotherapy can help you feel more supported. You can explore personal stories from patients and survivors treated with immunotherapy on CRI's website.

Organizations such as the American Cancer Society, Cancer Care, and Cancer Support Community also offer additional educational resources, support communities, and patient and caregiver programs.



What Comes Next

Cancer treatment is a journey that looks different for everyone. Advances in immunotherapy are changing what's possible, helping many patients live longer and with a better quality of life.

Decisions about treatment are personal. Staying informed, asking questions, and working closely with your care team can help you make choices that are right for you.

Progress continues every day — and with it, new possibilities.

Disclaimer

This information is intended for educational purposes only and is not a substitute for professional medical advice, diagnosis, or treatment. Always talk with your health care team about questions or decisions related to your care.

Appendix

10 Questions to Ask Your Doctor about Cancer Immunotherapy

Being diagnosed with cancer can feel overwhelming, and understanding your treatment options can make a meaningful difference. Asking questions can help you take an active role in your care, make informed decisions, and feel more prepared for conversations with your health care team.

Here are 10 questions you may want to ask your doctor:

- 1 What type and stage of cancer do I have?
- 2 Is immunotherapy a recommended option for me right now?
- 3 Do I need additional biomarker or genetic testing to guide treatment or trials?
- 4 What are the benefits and risks of immunotherapy compared to other treatments like chemotherapy or radiation?
- 5 Will I receive immunotherapy alone or combined with other treatments?
- 6 What side effects should I expect, and when should I call you?
- 7 How will we know if the treatment is working, and how often will we monitor my progress?
- 8 Are there clinical trials that I should consider now or in the future?
- 9 What are the costs of treatment(s), and is it covered by my insurance?
- 10 What support resources are available for me and my family?

Acknowledgements

We extend our sincere gratitude to the CRI ImmunoAdvocates, a group of patients treated with immunotherapy, who generously shared their experiences, insights, and time to help shape this guide. By telling your stories and offering your perspectives, you've helped ensure that people newly diagnosed with cancer feel seen, supported, and empowered as they begin their immunotherapy journey.

Types of Cancers that Immunotherapies Can Treat

This table lists immunotherapies that have been approved by the FDA to treat different types of cancer. Some treatments are only used for specific groups of patients based on factors such as cancer type, stage, or biomarkers. The color dots in the table indicate the type of immunotherapy for each treatment.

- Immune checkpoint inhibitor (ICI)
- Bispesific antibody
- Non-ICI immunomodulator
- Cancer vaccine
- Cell and gene therapy
- Oncolytic virus therapy

Immunotherapy		Cancers treated	Immunotherapy		Cancers treated
●	Afamitresgene autoleucel (Tecelra[®]): a modified T cell that targets MAG-E-A4 on tumor cells	Sarcoma	●	Elranatamab (Elrexfio[®]): a bispecific BCMA-directed CD3 T-cell engager	Multiple myeloma
●	Aldesleukin (Proleukin[®]): a cytokine that targets the IL-2/IL-2R pathway	Melanoma, renal cell carcinoma (a type of kidney cancer)	●	Epcoritamab (Epkiny[®]): a bispecific antibody that targets CD20 on tumor cells and CD3 on T cells	Diffuse large B-cell lymphoma, follicular lymphoma
●	Atezolizumab (Tecentriq[®]): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Alveolar soft part sarcoma, hepatocellular carcinoma (a type of liver cancer), melanoma, non-small cell lung cancer, small cell lung cancer	●	Glofitamab (Columvi[®]): a bispecific antibody that targets CD20 on tumor cells and CD3 on T cells	Diffuse large B-cell lymphoma
●	Avelumab (Bavencio[®]): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Bladder cancer, Merkel cell carcinoma (a type of skin cancer), renal cell carcinoma (a type of kidney cancer)	●	Idecabtagene vicleucel (Abecma[®]): a BCMA-targeting CAR T-cell immunotherapy	Multiple myeloma
●	Axicabtagene ciloleucel (Yescarta[®]): a CD19-targeting CAR T-cell immunotherapy	Follicular lymphoma, large B-cell lymphoma	●	Imiquimod (Aldara[®]): an immune adjuvant targeting the TLR7 pathway	Basal cell carcinoma (a type of skin cancer)
●	Bacillus Calmette-Guérin (BCG) vaccine: uses weakened bacteria to stimulate the immune system	Bladder cancer	●	Ipilimumab (Yervoy[®]): a checkpoint inhibitor that targets the CTLA-4 pathway [#]	Melanoma
●	Blinatumomab (Blincyto[®]): a bispecific antibody that targets CD19 on tumor cells and CD3 on T cells	Acute lymphoblastic leukemia	●	Lifileucel (Amtagvi[®]): a tumor-derived T-cell immunotherapy	Melanoma
●	Brexucabtagene autoleucel (Tecartus[®]): a CD19-targeting CAR T-cell immunotherapy	Acute lymphoblastic leukemia, mantle cell lymphoma	●	Linvoseltamab (Lynsozyfic[™]): a bispecific BCMA-directed CD3 T-cell engager	Multiple myeloma
●	Cemiplimab (Libtayo[®]): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Basal cell carcinoma (a type of skin cancer), cutaneous squamous cell carcinoma (a type of skin cancer), non-small cell lung cancer	●	Lisocabtagene maraleucel (Breyanzi[®]): a CD-19-targeting CAR T-cell immunotherapy	Follicular lymphoma, large B-cell lymphoma, mantle cell lymphoma, marginal zone lymphoma
●	Ciltacabtagene autoleucel (Carvykti[®]): a BCMA-targeting CAR T-cell immunotherapy	Multiple myeloma	●	Mogamulizumab (Poteligeo[®]): a monoclonal antibody that targets the CCR4 pathway	Cutaneous T-cell lymphoma
●	Cosibelimab (Unloxyct[™]): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Cutaneous squamous-cell carcinoma (a type of skin cancer)	●	Mosunetuzumab (Lunsumio[®]): a bispecific antibody that targets CD20 on lymphoma cells and CD3 on T cells	Follicular lymphoma
●	Dostarlimab (Jemperli[®]): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Endometrial cancer, solid tumors that have DNA mismatch repair deficiency (dMMR)	●	Nadofaragene firadenovec (Adstiladrin[®]): an adenoviral vector-based gene therapy	Bladder cancer
●	Durvalumab (Imfinzi[®]): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Biliary tract cancer, bladder cancer, endometrial cancer, gastric (stomach) cancer, non-small cell lung cancer, small cell lung cancer	●	Nivolumab (Opdivo[®]): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway*	Bladder cancer, colorectal cancer, esophageal cancer, gastric (stomach) cancer, head and neck cancer, hepatocellular carcinoma (a type of liver cancer), Hodgkin lymphoma, melanoma, mesothelioma, non-small cell lung cancer, renal cell carcinoma (a type of kidney cancer)

- Immune checkpoint inhibitor (ICI)
- Bispesific antibody
- Non-ICI immunomodulator
- Cancer vaccine
- Cell and gene therapy
- Oncolytic virus therapy

Immunotherapy		Cancers treated	Immunotherapy		Cancers treated
●	Nogapendekin alfa inbakicept (Anktiva®): a cytokine that targets the IL-15 pathway	Bladder cancer	●	Talquetamab (Talvey®): a bispecific antibody that targets GPRC5D on tumor cells and CD3 on T cells	Multiple myeloma
●	Obecabtagene autoleucl (Aucatzyl®): a CD19-targeting CAR T-cell immunotherapy	Acute lymphoblastic leukemia	●	Tarlatamab (Imdelltra®): a bispecific antibody that targets DLL3 on cancer cells and CD3 on T cells	Small cell lung cancer
●	Peginterferon alfa-2b (also called as Peg-Intron, Sylatron™): a cytokine that targets the interferon pathway	Melanoma	●	Tebentafusp (Kimmtrak®): a bispecific T-cell engager that targets a gp100 peptide on cells and CD3 on T cells	Uveal melanoma
●	Pembrolizumab (Keytruda®): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Biliary tract cancer, bladder cancer, breast cancer, cervical cancer, colorectal cancer, cutaneous squamous cell carcinoma (a type of skin cancer), endometrial cancer, esophageal cancer, gastric (stomach) cancer, hepatocellular carcinoma (a type of liver cancer), head and neck cancer, Hodgkin lymphoma, melanoma, mesothelioma, Merkel cell carcinoma (a type of skin cancer), non-small cell lung cancer, primary mediastinal large B-cell lymphoma, renal cell carcinoma (a type of kidney cancer), cancers that have microsatellite instability-high (MSI-H) or dMMR, tumors that have a high mutational burden (TMB)	●	Teclistamab (Tecvayli®): a bispecific antibody that targets BCMA on tumor cells and CD3 on T cells	Multiple myeloma
●	Penpulimab (Anniko®): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Nasopharyngeal carcinoma (a type of head and neck cancer)	●	Tisagenlecleucl (Kymriah®): a CD19-targeting CAR T-cell immunotherapy	Acute lymphoblastic leukemia, follicular lymphoma, large B-cell lymphoma
●	Retifanlimab (Zynyz®): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway ⁱ	Anal cancer, Merkel cell carcinoma (a type of skin cancer)	●	Tislelizumab (Tevimbra®): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Esophageal cancer, gastric (stomach) cancer
●	Sipuleucl-T (Provenge®): a vaccine composed of patient-stimulated dendritic cells	Prostate cancer	●	Toripalimab (Lqtorzi®): a checkpoint inhibitor that targets the PD-1/PD-L1 pathway	Nasopharyngeal carcinoma (a type of head and neck cancer)
●	Talimogene laherparepvec (also called T-VEC, Imlygic®): a modified herpes simplex virus (HSV) that infects tumor cells and promotes their destruction	Melanoma	●	Tremelimumab (Imjudo®): a checkpoint inhibitor that targets the CTLA-4 pathway	Hepatocellular carcinoma (a type of liver cancer), non-small cell lung cancer

*Nivolumab + #ipilimumab can be used to treat patients with colorectal cancer and hepatocellular carcinoma (a type of liver cancer).

*Nivolumab + †relatlimab (Opdualag®) can be used to treat patients with melanoma.

Glossary

Adjuvant therapies

Adjuvant therapies are additional cancer treatments given after primary treatment, such as surgery, to lower your risk of recurrence. Immunotherapies are often used as adjuvant therapies.

Adoptive T-cell therapy

Adoptive T-cell therapy is a type of immunotherapy that involves taking your immune cells — often your own T cells — modifying or expanding them outside your body, and returning them to your body to help find and attack cancer.

Antibodies

Antibodies are proteins that bind to specific targets (antigens) and help mark them for destruction by your immune system.

Antibody-drug conjugates (ADCs)

Antibody-drug conjugates are targeted cancer treatments that link an antibody with a chemotherapy drug to deliver treatment directly to cancer cells.

Antigen

An antigen is any substance — such as a protein — that triggers an immune response. Cancer cells may have antigens that your immune system can recognize and target.

B cells

B cells are immune cells that produce antibodies to help defend against infections and other threats. Each B cell is programmed to make one specific antibody.

Biomarkers

Biomarkers are proteins, genes, or other features that provide more information about cancer, including how it may behave and how it might respond to treatment.

Biopsy

A biopsy is a procedure in which a small sample of tissue is removed and examined to check for disease, including cancer.

Bispecific antibodies

Bispecific antibodies are engineered proteins that bind to two different targets at the same time. They can help bring immune cells into contact with cancer cells so they can attack.

Cancer vaccines

Cancer vaccines are a type of immunotherapy that help the immune system recognize and attack cancer. Some are used to prevent cancer, while others treat existing cancer.

Cell and gene therapies

Cell and gene therapies are a type of immunotherapy that modifies immune cells or genes either inside your body or in the laboratory so immune cells can better find and attack cancer. These treatments include adoptive cell therapies like chimeric antigen receptor (CAR) T-cell therapy, tumor-infiltrating lymphocyte (TIL) therapy, and T-cell receptor (TCR) therapy.

Chemotherapy

Chemotherapy, often called “chemo”, is a cancer treatment that uses drugs to kill fast-dividing cells. It can be used alone or in combination with other treatment types.

Chimeric antigen receptor (CAR) T-cells

CAR T cells are engineered T cells used in adoptive cell therapy. They are designed to recognize specific proteins on cancer cells and attack those cells.

Clinical trials

Clinical trials are research studies that evaluate new treatments to determine whether they are safe and effective.

Cytokines

Cytokines are signaling molecules that help regulate immune system activity and communication between cells.

Genetic mutations

Genetic mutations are changes in your DNA. Some are linked to cancer and may help predict how well certain treatments, including immunotherapy, will work.

Immune checkpoint inhibitors (ICIs)

Immune checkpoint inhibitors are a type of immunotherapy that help “release the brakes” on your immune system so it can better recognize and attack cancer cells.

Immune system

The immune system is a network of organs, cells, and molecules that protects your body from infections and diseases, including cancer.

Immune-related side effects (irAEs)

Immune-related side effects occur when your immune system becomes overactive and begins to affect healthy parts of your body. These side effects can involve organs such as your skin, colon, liver, lungs, or hormone-producing glands and may require prompt treatment.

Immuno-oncology

Immuno-oncology is the study and development of cancer treatments that use your body's immune system.

Immunomodulators

Immunomodulators are treatments that adjust or enhance your immune system's response to cancer.

Immunotherapy

Immunotherapy is a type of cancer treatment that uses your immune system to prevent, control, or eliminate cancer. It can be used alone or in combination with other treatment types.

Monoclonal antibodies

Monoclonal antibodies are proteins designed to target antigens, or specific markers, on cancer cells and help your immune system recognize and attack them.

Neoadjuvant therapies

Neoadjuvant therapies are treatments given before primary treatment, such as surgery, to improve its effectiveness. Immunotherapies are often used as neoadjuvant therapies.

Oncolytic virus therapy

Oncolytic virus therapy is a type of immunotherapy that uses a modified virus to infect and destroy cancer cells while stimulating an immune response.

Personalized (precision) medicine

Personalized or precision medicine uses information about your genes, proteins, and other factors to guide treatment decisions tailored to you.

Proteins

Proteins are molecules that perform many essential functions in your body, including building tissues and supporting immune responses.

Radiation

Radiation, or radiation therapy, uses high-energy particles or waves to destroy or damage cancer cells. It can be used alone or in combination with other treatment types.

Recurrence

Recurrence is when cancer returns after treatment.

Remission

Remission is a decrease or disappearance of signs and symptoms of cancer. It is a time in which the disease is considered under control.

Staging

Staging describes how advanced a cancer is, including whether it has spread and how much of your body is affected.

T cells

T cells are immune cells that help identify and destroy infected or abnormal cells, including cancer cells. Some T cells directly kill their target cells, while others coordinate your immune response by signaling to other immune cells.

Tumor

A tumor is an abnormal lump or mass of tissue. Tumors can be benign (non-cancerous) or malignant (cancerous).

Tumor microenvironment (TME)

The tumor microenvironment includes the cells, blood vessels, nerves, and other structures that surround a tumor. It can influence how cancer grows and responds to treatment.

About CRI

The Cancer Research Institute (CRI) is a nonprofit organization dedicated to advancing the field of cancer immunotherapy through rigorous scientific research and global collaboration. Since 1953, CRI has been instrumental in uncovering the fundamental biology of the immune system and its application to cancer treatment, laying the groundwork for breakthroughs such as checkpoint blockade, cancer vaccines, and engineered cell therapies.

CRI's mission is to create a world immune to cancer by driving scientific discovery, accelerating collaboration, and turning breakthroughs into life-saving treatments. Our work bridges the gap between discovery and patient impact, ensuring that scientific innovation translates into real-world treatments.

To date, CRI has committed over \$571 million to research impacting more than 35 cancer types. Our funding strategy is built on the framework of People × Biology × Data: supporting world-class scientists, deepening understanding of tumor-immune system interactions, and harnessing data to guide discovery and translation. By uniting these elements, CRI catalyzes innovation through our global research ecosystem to drive the next generation of discoveries forward.



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