



CELLULAR HOPE  
— INSTITUTE —

# BOOST THE REGENERATIVE POTENTIAL OF YOUR IMMUNE SYSTEM

LEARN WHAT NATURAL KILLER CELLS CAN DO FOR YOU





**Allogeneic natural killer (NK) cells are a type of immune cell that can be used to fight against aging. NK cells have the potential to provide a number of anti-aging benefits, including:**



**Improved Immune System Function:** Allogeneic NK cells can help you boost the immune system to fight off infections and diseases more effectively. This can help you reduce the risk of age-related illnesses and improve overall health.



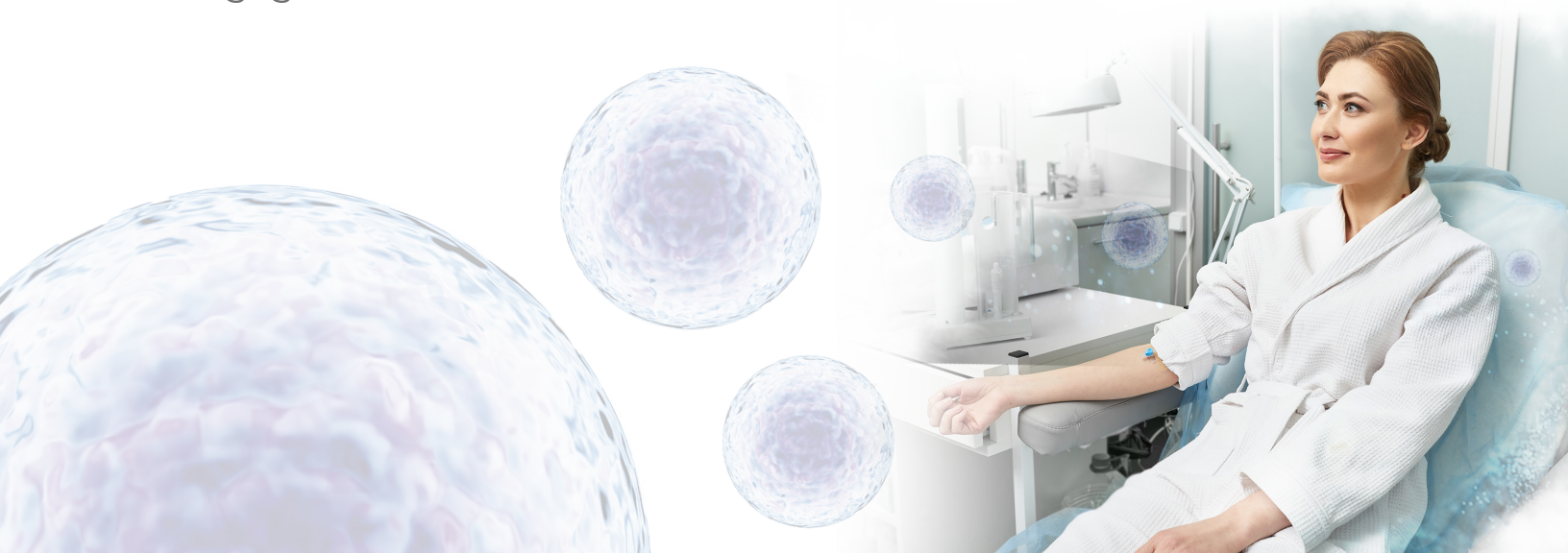
**Reduced Inflammation:** Allogeneic NK cells can help you reduce inflammation in the body, which can reduce the risk of age-related diseases such as arthritis and heart disease.



**Improved Cognitive Function:** NK Cells can increase cognitive function in aging individuals, allowing them to think more clearly and remember things better.

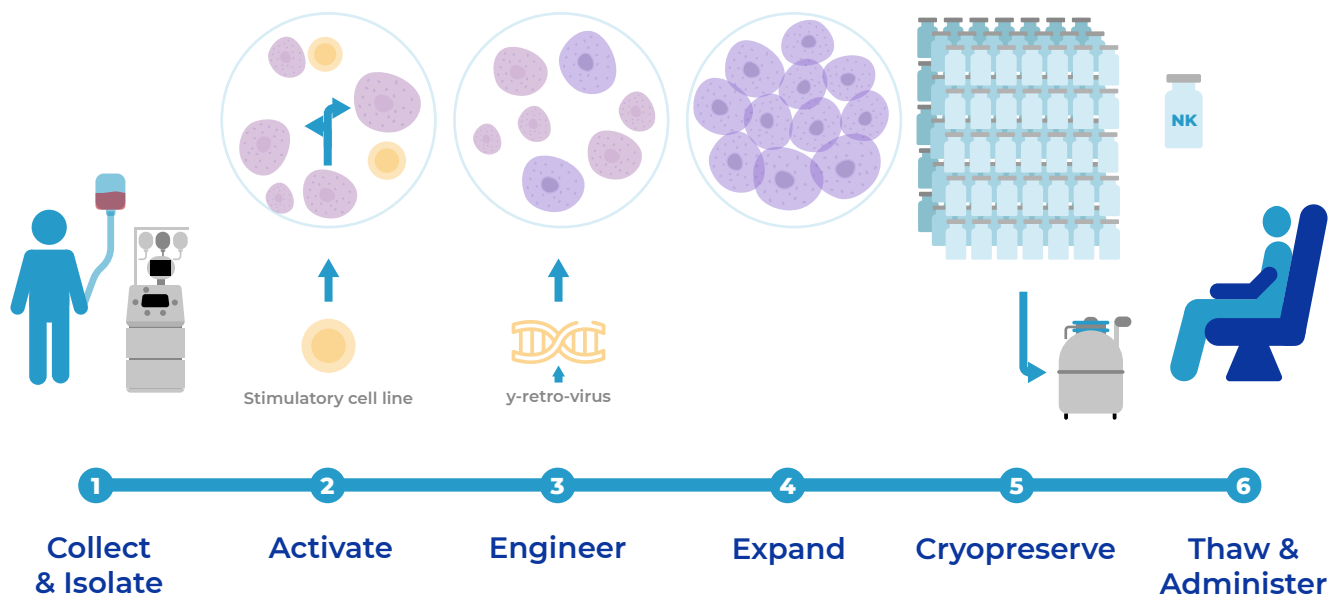


**Increased Energy Levels:** NK cells can help to increase energy levels in aging individuals, allowing them to stay active and engaged in life.



# NATURAL KILLER CELL TREATMENT & IMMUNOTHERAPY W/ NK CELLS

Over the course of modern history, chemotherapy and cytotoxic pharmaceuticals have dominated most cancer treatments. Despite the fact that these traditional methods of treating cancer are successful in killing cancer cells, they also destroy many of the body's healthy cells and neurotransmitters, causing serious side effects. A functional medical approach has always been a single goal of scientists in the fight against cancer: to kill only cancer cells and reverse systemic autoimmune disease.



**1 | Collect & Isolate:** NK cells collected from healthy donors by leukapheresis.

**2 | Activate:** NK cell expansion using proprietary stimulatory cells.

**3 | Engineer:** Expanded NK cells are transduced to express mbIL-15 and CAR.

**4 | Expand:** Continued expansion driven by mbIL-15.

**5 | Cryopreserve:** Harvesting and cryopreservation of final cell product.

**6 | Thaw & Administer:** NK product candidate is thawed for off-the-shelf administration to patients.



# NATURAL KILLER CELLS

Natural killer cells or NK are the body's first line of defense viruses and cancerous cells in the body, and are innately capable of finding and destroying transformed cells. Recent advances in gene therapies, mRNA technology, regenerative medicine, and non-toxic radiology have helped us get much further than ever before. Currently, our therapeutic goals are primarily to strengthen your body's ability to fight disease and cancer by strengthening its own natural defense mechanisms.

Due to its repair and regeneration capacity, NK cells, or natural killer cells are always being used by the human immune system to prevent cancer. Cancerous cells, precancerous cells, and viruses can and do be destroyed by our immune system while recognizing healthy cells and not harming them. With this new targeted therapy (autologous NK cellular immunotherapy), the patient's immune system fights and destroys cells and organisms that are harmful to the body.

NK cells are a type of white blood cell known as a lymphocyte. Humans are born with these lymphocytes as part of their congenital immune system. Activated lymphocyte therapy works by directly attacking and killing cancer cells by infusing autologous Enriched NK cells from the patient's immune system.

Killer cells are responsible for our bodies' ability to reject "foreign mutant cells" such as tumors and virally infected cells. There are two types of natural killer cells: cytotoxic T cells and natural killer T cells. These tiny granules within its cytoplasm contain very specific proteins (proteases & perforins) called granzymes. Natural T Killer cells produce a wide variety of cytokines, such as:

- **Interleukin (IL-10)**
- **Tumor necrosis factor  $\alpha$  TNF $\alpha$**
- **IFN $\gamma$**

# NATURAL KILLER CELLS: THE POWER OF NATURE

As one of the most promising breakthroughs in cancer treatment, cell therapy uses immune cells to attack tumors. Currently, first-generation approaches focus on T-cell therapy, which has shown promising results in hematologic malignancies, but that has been plagued with unwanted side effects, and has yet to show similar results in solid tumors.

## The potential benefits of NK cell therapy include:

It targets multiple pathogenic antigens with a measurably higher degree of cytotoxicity.

Maintain a better level of control to reduce the risk of cytokine storms.

Are not dependent on patient-specific immune cells, and are produced from a variety of sources.

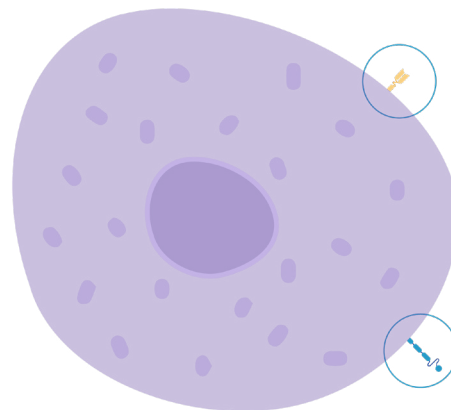
NK cell therapy platform maximizes the therapeutic effect of allogeneic NK cells by increasing their expansion, enhancing their targeting, and extending their survival to unleash powerful and sustained anti-cancer immune responses.

Our CAR-NKs are engineered to address the limitations of current CAR-T therapies, including safety concerns and tumor targeting.

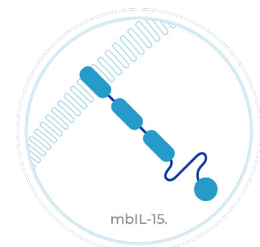
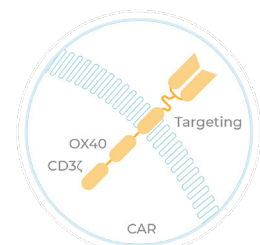
## ENGINEERED CAR-NK CELLS

### NK cells are the cornerstones of innate immunity

- Cell source derived from allogeneic donors, which is scalable for off-the-shelf use.
- The use of proprietary technologies such as expansion, persistence, cryopreservation, and tumor targeting.



CAR-NK CELL



Targeting receptor, OX40 costimulatory domain, CD3ζ signaling moiety, membrane bound IL-15



*We help you Enhance your own body's ability to fight, repair and restore through Advanced Regenerative Medicine therapies.*



## NK Cells Derived from cord blood

### Product:

**1 |** Our cells are derived from cord blood from healthy donors  
A Certificate of Analysis is delivered with each sample that has:

- Analytical Test
- Infectious Disease Screening
- Microbiology testing

**2 |** They are expanded in bioreactor in a laboratory in the US  
A Product Data Sheet is delivered with each sample that has:

- Cell Identity and Purity

**3 |** They are stored in Liquid Nitrogen and shipped on dry ice.

### Protocol of Administration:

We recommend 500M cells in 4 Infusions:

- ▶ **Fist week:** 125M cells infusion.
- ▶ **Second week:** 125M cells infusion.
- ▶ **Third week:** 125M cells infusion.
- ▶ **Fort week:** 125M cells infusion.



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