



THE KWEST TOWARDS A CURE

Living Drugs in a Bag[®] therapy
 OUR WAR **AGAINST** CANCER
 Harnessing the Natural Order of Our Immune System

LEARN MORE

Our Company

NantKwest is an innovative clinical-stage immunotherapy company focused on harnessing the power of the innate immune system by using the natural killer cell to treat cancer, infectious diseases and inflammatory diseases.

NantKwest is uniquely positioned to implement precision cancer medicine, with the potential to change the current paradigm of cancer care. Natural Killer cells are ancient cells in the human body designed to recognize and detect cells under stress or infected. **Our “off-the-shelf” activated Natural Killer (NK) platform have the capacity to destroy cancer and virally infected cells from the body.** The safety of our NK cells as well as their activity against a broad range of cancers have been tested in multiple phase 1 clinical trials in the United States, Canada and Europe. In addition to our NK cells capability to be administered in the outpatient setting as an “off-the-shelf” living drug, it serves as a universal cell-based therapy without need for individualized patient matching. Moreover, our NK cell based platform has been bioengineered to incorporate chimeric antigen receptors (CARs) and antibody receptors to further optimize targeting and potency in the therapeutic disease.

Natural Killer Cell Platform



Latest News

NantKwest
Announces

Nantkwest Builds
Financial Road

NantKwest to
Discontinue

Announces
Successful First in
Human
Administration of
CD16 High Affinity
Natural Killer (hank)
Cells

Oct 2, 2017 | Press Releases

Successful Administration Of
Off The Shelf Hank Cells In
Patients With Solid Tumors
Paves The Way To Nation's
First Combination Innate And
Adaptive NANT Cancer
Vaccine Trials In Multiple
Tumor Types CULVER CITY,
Calif.—October 2, 2017-
NantKwest Inc...

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Financial and
Commercial
Expertise with the
Appointment of
Fred Driscoll to its
Board of Directors

Sep 22, 2017 | Press Releases

Culver City, September 22,
2017 - NantKwest, Inc.
(Nasdaq:NK) today announced
that Fred Driscoll, currently an
Advisor and former Chief
Financial Officer of Flexion
Therapeutics, Inc., has been
appointed to the Board to fill
the position being vacated
by...

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Present at
Upcoming
Investment
Conferences

Sep 5, 2017 | Events, Press
Releases

CULVER CITY, CALIFORNIA-,
September 5, 2017 NantKwest
(Nasdaq:NK), a leading,
clinical-stage natural killer cell
based therapeutics company,
today announced that the
company will be presenting at
three investment conference
in September. The
presentations will feature...

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[MORE NEWS](#)

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[Patent Notice](#)



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HARNESSING THE NATURAL ORDER OF OUR IMMUNE SYSTEM

Living Drugs in a Bag® Therapy
OUR WAR **AGAINST** CANCER

Technology

OVERVIEW - A Next Generation Immunotherapy Platform

The Natural Killer Cell

The immune system is a tapestry of diverse families of immune cells each with its own distinct role in protecting from infections and diseases. Among these immune cells are the natural killer, or NK, cells as the body's first line of defense. NK cells have the innate ability to rapidly seek and destroy abnormal cells, such as cancer or virally-infected cells, without prior exposure or activation by other support molecules. In contrast to adaptive immune cells such as T-cells, NK cells are uniquely powerful in that they are always activated to attack diseased cells, without a delay in killing. Our proprietary activated Natural Killer (aNK) platform is based upon highly potent Natural Killer cells from a unique cell line, harnessing the power of the innate immune system.

- Full Power of our Body's Own Immune System:** We're harnessing the full power of our body's own immune system, by developing treatments which utilize natural killer cells, our body's first line of defense in the battle against cancer.
- DISCOVERED A UNIQUE NATURAL KILLER CELL:** We've discovered a unique variant of natural killer cells called aNK that lacks inhibitory receptors but has a broad array of activating receptors.
- UNIVERSAL CELL-BASED THERAPY:** DOESN'T require individualized patient matching.
- MANUFACTURED AT SCALE / OFF-THE-SHELF APPROACH:** A red syringe icon representing scalable manufacturing.
- OUTPATIENT SETTING:** Can be administered in an outpatient setting. Includes an icon of a person sitting at a computer terminal and a 'Living Drugs in a Bag® Therapy' bag.

One Mission - Three NK Platforms

NantKwest's unique NK cell based platform, with the capacity to grow active killer cells as a biological cancer therapy, has been designed to induce cell death against cancer or infected cells by three different modes of action:

UNIQUE PLATFORM - MULTIPLE APPROACHES TO TARGETED KILLING



aNK: Activated Natural Killer

Direct killing using NK-92 derived activated NK cells (aNK) that release toxic granules directly into the cancer cells through cell-to-cell contact.

haNK®

Antibody-mediated killing using haNKs, which are aNK cells engineered to incorporate a high affinity receptor that binds to an administered antibody, enhancing the cancer cell killing effect of that antibody.

taNK®

Target-activated killing using taNKs, which are NK cells engineered to incorporate chimeric antigen receptors (CARs) to target tumor-specific antigens found on the surface of cancer cells.

We are developing means by which our NK cells can be grown at commercial scale as on-demand, Living Drugs in a Bag® therapy, using our proprietary manufacturing and distribution processes.

What is Living Drugs in a Bag therapy?

Off-the-Shelf

Can be used in all eligible patients

A universal cell-based therapy which **doesn't** require individualized patient matching

Eliminates a Step

No need to collect the patient's white blood cells

With off-the-shelf aNKs, this invasive procedure is eliminated

Greater Control

Favorable safety profile: aNKs' clonal and multiple dosing reduces the impact adverse events

Cost Effective

Economical cell therapy: aNK can be produced in large multi-dose batches with reduced processing

aNK

Activated Natural Killer "Off-The-Shelf" Cell: The aNK Cell



ADMINISTRATION:

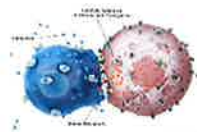
aNK cells are administered to a patient and circulate until they interact with cancer cells

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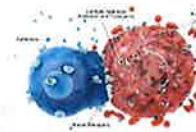
ACTIVATION:

aNK cells recognize cancer cell stress signals through surface-expressed innate receptors, leading to cytotoxic granules positioning toward the cell interface and the release of cytotoxic granules that recruit additional immune cells



DEGRANULATION:

Cytotoxic granules degranulate and discharge perforins and granzymes into cancer cell



KILLING:

Cancer cell is killed due to poration of the cell membrane and nuclear breakdown, DNA degradation, chromatin condensation, mitochondrial depolarization, and reactive oxygen species (ROS) generation

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haNK[®]

haNK[®]



ANTIBODY BINDING

Monoclonal antibodies bind to surface proteins on cancer cell

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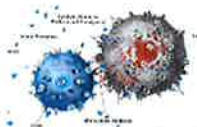
[Play Video](#)

haNK[®] mediates killing of HER2+ cancer cells in the presence of Herceptin



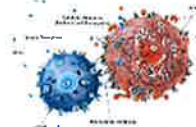
ATTACHMENT

haNK[®] cells through surface-expressed CD16 bind to antibodies already bound to cancer cell surface proteins, leading to cytotoxic granules positioning toward the cell interface



DEGRANULATION

Cytotoxic granules degranulate and discharge perforins and granzymes into cancer cell



KILLING

Cancer cell is killed due to poration of the cell membrane and nuclear breakdown, DNA degradation, chromatin condensation, mitochondrial depolarization, and reactive oxygen species (ROS) generation

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taNK[™]

taNK™



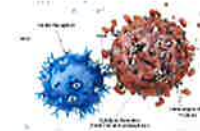
ADMINISTRATION:
taNK™ cells are administered to a patient and circulate until they interact with cancer cells.



ACTIVATION:
taNK™ cells recognize cancer cell surface receptors through surface-expressed HER2/neu Antigen Receptors (sHER2) leading to cytolytic granules pointing toward the cell structure and the release of cytotoxins that infect additional immune cells.



DEGRANULATION:
Cytolytic granules degranulate and obuchangi perforins and granzymes into cancer cell.



KILLING:
Cancer cell is killed due to poration of the cell membrane and nuclear breakdown, DNA degradation, chromatin condensation, mitochondrial depolarization, and reactive oxygen species (ROS) generation.

READ MORE

Play Video

HER2.taNK specifically targets and kills Her2 expressing cancer cell



Play Video

HER2.taNK serially kills Her2 expressing cancer cells

Contact us for information on NantKwest's Living Drugs in a Bag™ therapy coocontact@nantkwest.com

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