# Unlocking the Power of Natural Killer Cell Therapeutics

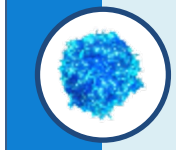
Cytovia Therapeutics

November 2022

# Cytovia Therapeutics: An Emerging NK Cell Therapy Leader Advancing First-in-Class Candidates Towards Multiple Clinical Milestones

## Two Cutting-Edge Technology Platforms

First Company to Develop Both NK Cells & Antibodies, for Use Alone or in Combination



TALEN® Gene-Edited, iPSC-Derived NK/CAR-NK Cells

Flex-NK™ Bispecific Antibodies

## First-in-Class Clinical Candidates

Addressing Major Oncology Indications with Significant Unmet Medical Needs

**GPC3-targeted** iNK cell + Flex-NK™ antibody for Hepatocellular Carcinoma (HCC)

**CD38-targeted** iNK cell + Flex-NK™ antibody for Multiple Myeloma (MM) / CTCL

**EGFR-targeted** CAR-iNK cell for Glioblastoma (GBM)

## Validating Pre-Clinical Data

Presented at Key Medical Meetings in 2022 (*AACR, EHA, ESMO, SITC, ASH)*

GPC3 Flex-NK™ Bispecific Antibody for HCC

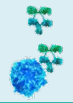
GPC3 Flex-NK™ Bispecific Antibody & iNK Cell Combination for HCC

CD38 Flex-NK™ Bispecific Antibody for MM/CTCL

Multi-gene-edited iNK Cell for Multiple Indications

## Advancing Towards Multiple Clinical Milestones in 2023-24

2 Flex-NK™ Bispecific Antibody INDs in 2023



Initial Clinical Data for GPC3 & CD38 programs in H1 2024

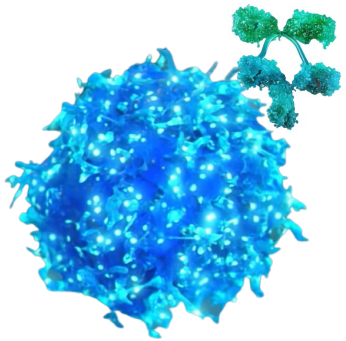
IITs/INDs for Gene-Edited iNK/CAR-iNK Cells in 2024

# Up to 4 Clinical Trials to be Initiated in 2023

**CYT-303**
GPC3-Targeted
FLEX-NK™
Bispecific Antibody

Phase 1 Dose Escalation in Hepatocellular Carcinoma

*(Cytovia Trial)*



**CYT-103**
iNK Cell Pre-Complexed with GPC3-Targeted
FLEX-NK™
Bispecific Antibody

Investigator Initiated Trial in Hepatocellular Carcinoma

*(CytoLynx Trial)*

**CYT-338 (MM)**
CD38-Targeted
FLEX-NK™
Bispecific Antibody

Phase 1 Dose Escalation in Multiple Myeloma

*(Cytovia Trial)*

**CYT-338 (CTCL)**
CD38-Targeted
FLEX-NK™
Bispecific Antibody

Investigator Initiated Trial/IND in Cutaneous T-Cell Lymphoma

*(Cytovia Trial)*

# Cytovia Pipeline Supports 2 INDs in 2023 from its GPC3 and CD38 Franchises

| Lead Program | Product Platform | Product Candidates | Indication | Pre-Clinical | Clinical | IND Filings |
|---|---|---|---|---|---|---|
| GPC3 Program | Flex-NK™ | CYT-303 | HCC | GPC3 Flex-NK™ Bispecific Antibody | | 2023 |
| | iNK | CYT-103 *(CytoLynx Program)* | HCC | iNK Cell Pre-Complexed with GPC3 Flex-NK™ Bispecific Antibody | | China IIT in 2023 |
| | Edited iNK | CYT-150 | HCC + other tumors | Gene-Edited iNK Cell | | IIT/IND in 2024 |
| | Edited iNK + Flex-NK™ | CYT-303 + CYT-150 | HCC | GPC3 Flex-NK™ Bispecific Antibody + Edited iNK Cell | | IIT/IND 2024 |
| | CAR-iNK | CYT-503 | HCC | GPC3 CAR-iNK Cell | | IIT/IND 2024 |
| CD38 Program | Flex-NK™ | CYT-338 | MM, CTCL | CD38 Flex-NK™ Bispecific Antibody | | 2023 |
| | CAR-iNK | CYT-538 | MM | CD38 CAR-iNK Cell | | 2025 |
| EGFR Program | CAR-iNK | CYT-501 | GBM | EGFR vIII + WT CAR-iNK Cell | | 2025 |

HCC: Hepatocellular Carcinoma
IND: Investigational New Drug
IIT: Investigator-Initiated Trial
MM: Multiple Myeloma
CTCL: Cutaneous T-cell lymphoma
GBM: Glioblastoma Multiforme

# Cytovia has Presented Validating Data at Key 2022 Oncology Meetings

**GPC3**

- GPC3 Flex-NK™ Cell Engagers Showed to Redirect NK Cells to Kill HCC Tumors Cells *in vitro*
  (data presented at AACR 2022)
- The Combination of CYT-303 and iNKs Showed Greater Tumor Growth Inhibition Compared to iNKs Alone in HCC mouse model
  (data presented at AACR 2022)
- Preclinical characterization of FLEX-NK™ tetravalent NKp46 engager directed against GPC3 (CYT-303) alone or in combination with iPSC derived Natural Killer cells (iNKs) against hepatocellular carcinoma (HCC).
  (data presented at AACR LIVER 2022)
- CYT-303 Demonstrated Improved Dose-Response in Combination with iNK Cells Compared to Combination with PB-NK in HCC Tumor Models.
  (data presented at ESMO 2022)
- CYT-303 Preclinical Data Supported Clinical Evaluation in Patients & Pre-clinical Characterization of CYT-100 in combination with CYT-303
  (data presented at SITC 2022 – 2 Abstracts)
- CYT-303 FLEX-NK engager does response efficacy mechanisms in HCC tumor model and safety in cynomolgus monkey tox studies support clinical trial in HCC
  (data submitted to AACR 2023)
- Improved anti-tumor immune functions of iPSC derived NK cells with TGFbR2 KO and / or IL-15 KI by TALEN editing for use alone or in combination with GPC3 FLEX-NK bispecific antibody
  (data submitted to AACR 2023)

**CYT-150**

- CYT-150 Confirmation of the protein expression level of the edited genes & enhanced antitumor activity in gene edited iNK cells
  (data presented at SITC 2022)

**CD-38**

- Novel Multifunctional Tetravalent CD38 NKp46 FLEX-NKTM Engagers Actively Target and Kill Multiple Myeloma Cells
  (data presented at EHA 2022)
- Biological Characterization and Differential Gene Expression Analysis of CYT-338 NK Cell Engager (NKE) Against CD38 Expressing Tumors Including Multiple Myeloma
  (presented at ASH 2022)


PARIS 2022 ESMO congress

sitc Society for Immunotherapy of Cancer 2022

AACR SPECIAL CONFERENCE: ADVANCES IN THE PATHOGENESIS AND MOLECULAR THERAPIES OF LIVER CANCER
May 5 - 8, 2022
Westin Copley Place
Boston, Massachusetts


AMERICAN SOCIETY OF HEMATOLOGY

# Internal R&D Team and Scientific Partnerships to Accelerate Development of Next Generation NK Therapeutics

Cellectis[1] — EDITING LIFE

The Hebrew University of Jerusalem

UCSF — University of California San Francisco

NYSCF[2] — The New York Stem Cell Foundation

Cytovia Therapeutics

**R&D Facility & Team in Boston Area for Cell Therapy, Antibody Process Development, and Future cGMP Manufacturing**

CytoImmune Therapeutics[2]

NIH National Cancer Institute

Inserm — Institut national de la santé et de la recherche médicale

(1) Cellectis $20MM convertible notes obligation is expected to convert into equity upon consummation of a qualified transaction. The consummation of the Proposed Business Combination would trigger conversion of Cellectis convertible notes obligation into equity at PIPE pricing
(2) Cytoimmune and NYSCF own equity in Cytovia
(3) Manufacturing facility expected to be operational in early 2022

# Accelerated Global Development of GPC3 Program Through CytoLynx Collaboration

*GPC3 franchise licensed for Greater China, facilitating patient access & accelerating global development*

## Strategic Advantages Offered by CytoLynx

1. Additional clinical development opportunities in China
2. Access to 38,000 sq² Shanghai R&D and manufacturing hub
3. Coordination on integrated development through Joint Development Team
4. Patient access in China to enable and accelerate global development

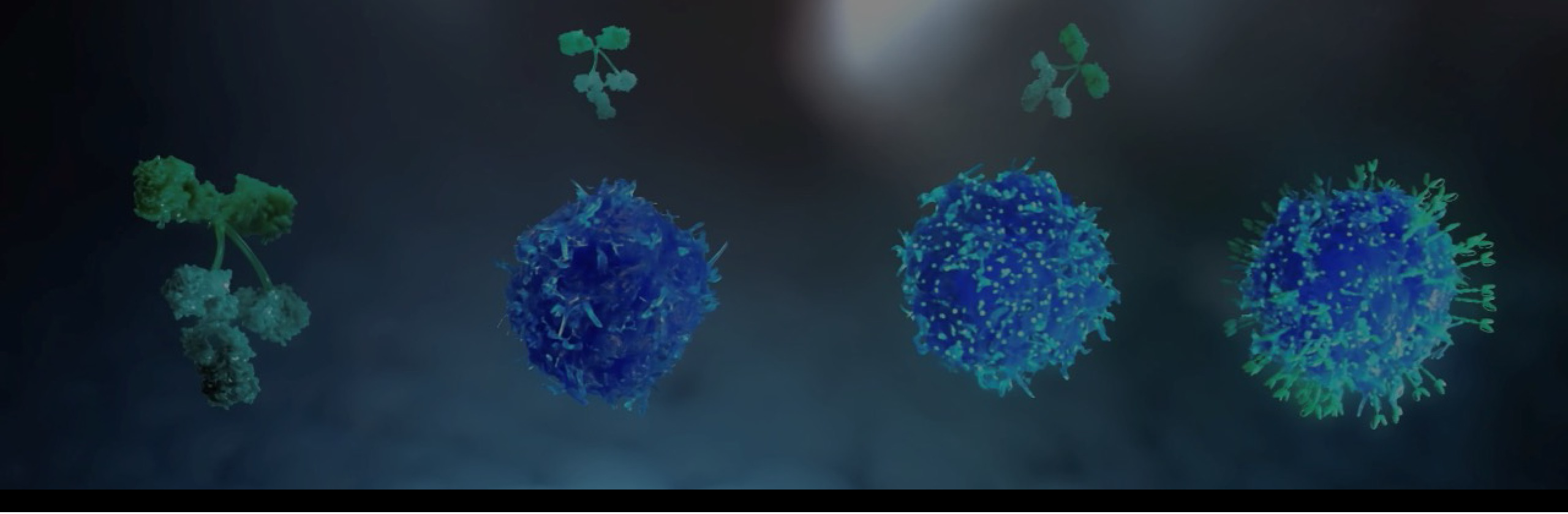
泰福資本 TF Capital

YF Capital 云锋基金

博远资本 BioTrack Capital

Tigermed

TEMASEK



# Glypican 3 (GPC3)
# HCC & Solid Tumors Franchise

# Cytovia Uniquely Positioned to Address the High Unmet Need in HCC

## HCC: The Most Frequent Form of Liver Cancer

- Liver cancer is the 6th most common cancer & 4th leading cause of cancer-related deaths worldwide
- HCC represents ~90% of liver cancer cases, with over 800,000 patients worldwide (over 50% in Asia)

## Suboptimal Therapies Driving High Unmet Need

- 28% response rate with best standard of care (Tecentriq® + Avastin®)
- Average progression-free survival of 6.8 months
- High Mortality: 623,000 deaths annually and 5-year survival rate of less than 9%

## Addressable Market Expected to Grow Substantially

- Unresectable HCC market expected to surpass $10 billion over the next decade, with 75% of the value outside of China

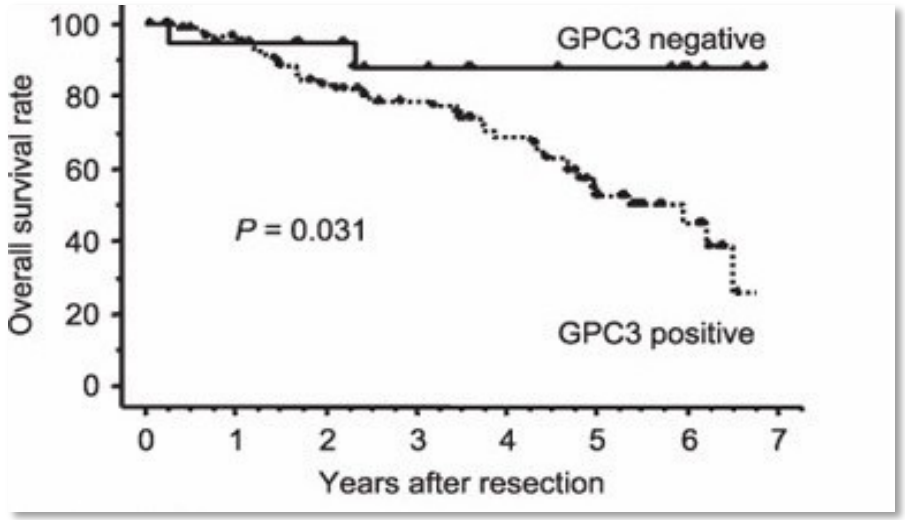
Source: Future Market Insight ; N Engl J Med 2019;380:1450-62. DOI: 10.1056/NEJMra1713263; N Engl J Med 2020;382:1894-905. DOI: 10.1056/NEJMoa1915745; J Res Med Sci. 2019; 24: 86. Published online 2019 Oct 25. DOI: 10.4103/jrms.JRMS_1017_18; GlobalData 2021; Cancer Treatment Centers of America 2022

# GPC3: A Promising New Therapeutic Target for HCC and Other Solid Tumors

*GPC3 is an antigen expressed in broad range of tumors & predominantly absent in normal tissues*

- Glypican 3 (GPC3) is a protein that is expressed on the cell membrane of many solid tumors, including HCC.
- GPC3 is highly expressed in patients with HCC and associated with poor prognosis (while undetectable in healthy livers).

## Survival Rate Relative to GPC3 Expression




## GPC3 Relative Expression in Solid Tumors

76% Hepatocellular Carcinoma

52% Lung Cancer – Squamous Cell Carcinoma

44% Germ-Cell Tumors

41% Ovarian Clear Cell Cancer

27% Esophageal Squamous Cell Carcinoma

11% Serous Cancer

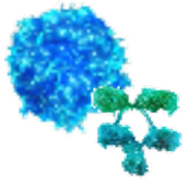
Sources: Left: Shirakawa H et al, Cancer Science, 2009
Right: Am J Pathol. 2018 Sep;188(9):1973-1981

# Cytovia's GPC3 Lead Program Aims to Develop First-in-Class HCC Therapies

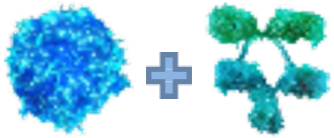
## Cytovia's GPC3 Program is Well Positioned to Address the Unmet Needs in HCC

**First-in-Class Program**

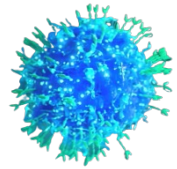
*GPC3-Targeted Flex-NK™ Bispecific Antibody (monotherapy)*



*iNK Cell Pre-Complexed with GPC3-Targeted Flex-NK™ Bispecific Antibody*



*GPC3-Targeted Flex-NK™ Bispecific Antibody + Edited/Unedited iNK Cells*



*GPC3-Targeted Edited CAR-iNK cell*

**Validation**

- Humanized scFV and CAR with high affinity and specificity to GPC3 developed by Dr. Mitchell Ho at the National Cancer Institute (NCI) and licensed to Cytovia
- GPC3 Flex-NK™ bispecific antibody has demonstrated activity against HCC tumor cells *in vitro* and *in vivo*, and in combination with iNKs.
- GPC3 CAR validation *in vivo*

**Global Development**

- Global development US/EU led
- Additional patient access in China
- IIT in China, global IND studies

Sources: Vol 15, Suppl 1: November 2018 (Abstract collection of 2018 Beijing Liver Cancer International Conference), DOI: 10.20892/j.issn.2095-3941.2018.S035

# HCC: An Attractive Market Opportunity with Differentiated Value for GPC3-Targeting Therapies

*Cytovia is the first company with its own bispecific antibodies and Natural Killer cells*

## Select GPC3 Development Programs

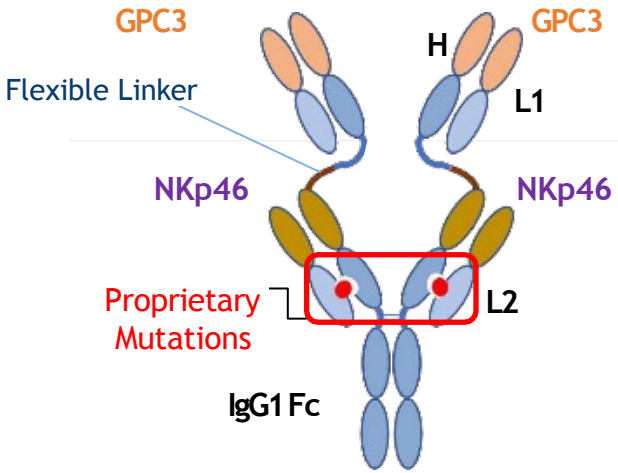
| | Takeda | LEGEND BIOTECH | UNUM THERAPEUTICS Sotio | OriCell Therapeutics 原启生物 | CARSGEN THERAPEUTICS | Adicet Bio REGENERON | SENTI BIO | Athenex (1) | Cytovia Therapeutics |
|---|---|---|---|---|---|---|---|---|---|
| Stage | Phase 1 | Pre-Clinical | Phase 1 | Phase 1 | Phase 1 | Pre-Clinical | Pre-Clinical | Pre-Clinical | **Pre-Clinical** |
| Cell Type | CAR-T | CAR-T | CAR-T | CAR-T | CAR-T | Vδ1 gamma delta CAR-T | CAR-NK | CAR-NKT | **iNK CAR-iNK** |
| Source | Patient | Patient | Donor-Derived | Patient | Patient | Donor-Derived | Donor-Derived | Donor-Derived | **iPSC** |
| Cell-Engager Antibodies | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | **FLEX-NK™** |

(1) Athenex acquired Kuur Therapeutics in May 2021

# Cytovia's Flex-NK™ Bispecific Antibody Platform

*Cytovia's Flex-NKTM bispecific antibodies uniquely engage NK cells in the tumor microenvironment*

## Cytovia's differentiated approach to engage NK cells




### NKp46 has significant benefits as an Activating Receptor*

- Primary driver of NK Cell's "natural cytotoxicity"
- Mediates NK cell lysis of autologous, allogeneic or xenogeneic cells
- NKp46 shows sustained expression on NK cells in the TME while other activating receptors, such as NKG2D, NKp30, CD16 and NKp44 are therein downregulated

*NKp46 is a preferred activating receptor to induce NK cell mediated anti-tumor immunity in solid tumors*

## Differentiated bispecific antibody platform

- IP acquired from Cytovia scientific cofounder
- Worldwide patent granted
- Tetravalent for increased affinity and avidity
- Full Fc function
- Longer half-life supporting weekly administration
- Up to 2 years stability
- Flexible linker allowing simultaneous binding to 2 different cells
- Proprietary mutation ensuring proper alignment of light and heavy chains

* Gauthier et al, Cell 2019, 177, 1701-1713

# GPC3-Targeted Flex-NK™ Bispecific Antibody Shown to Redirect NK Cells to Kill HCC Tumors Cells *in vitro*

*CYT-303 is a bispecific antibody which binds to NK cells via NKp46 & the Fc region/CD16 and to tumor cells via GPC3*

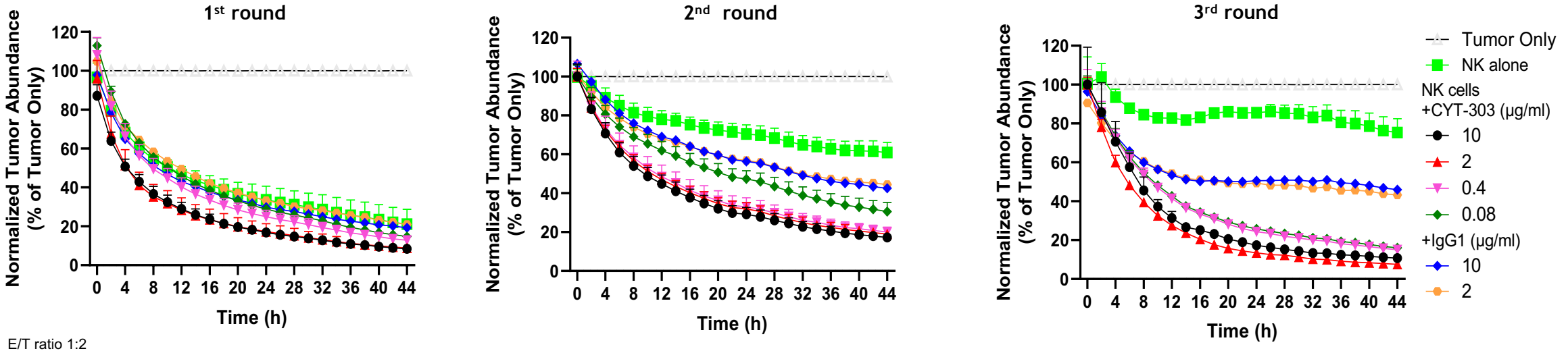
## CYT-303

### Functional activities in vitro:

- **Higher cytotoxic activation of NK cells** against Hep3B tumors compared to single mAbs directed against GPC3 or NKp46
- **Excellent safety profile** with no significant NK fratricide & activity on other immune cells and minimal cytokine release risk

Source: Lin L, Chang H-M, Nakid C, Frankel S, Wu D, Kadouche J, et al. Abstract 3436: Novel multifunctional tetravalent CD38 NKp46 FLEX NK™ engagers actively target and kill multiple myeloma cells. Cancer Research. 2022;82(12_Supplement):343

# CYT-303 Enhances Killing & Reverses Dysfunction of iNK Cells in vitro



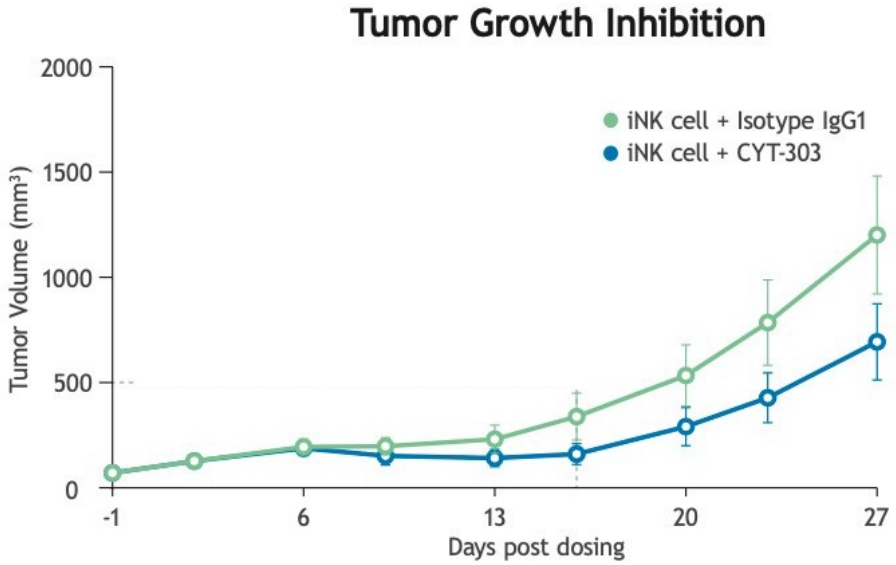

E/T ratio 1:2

→ **CYT-100 alone showed gradual reduction in serial killing suggesting dysfunction of these cells over time**

→ **CYT-303 in combination with CYT-100 reversed this dysfunction and enhanced serial killing of Hep3B tumors in a dose dependent manner**

# Combination of CYT-303 Antibodies & iNK Cells Shows Increased Tumor Growth Inhibition

## Tumor growth inhibition triggered by CYT-303 and iNK cells

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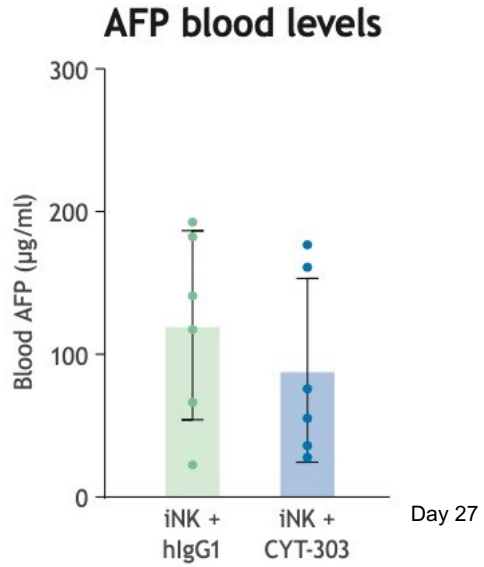



iNK injection

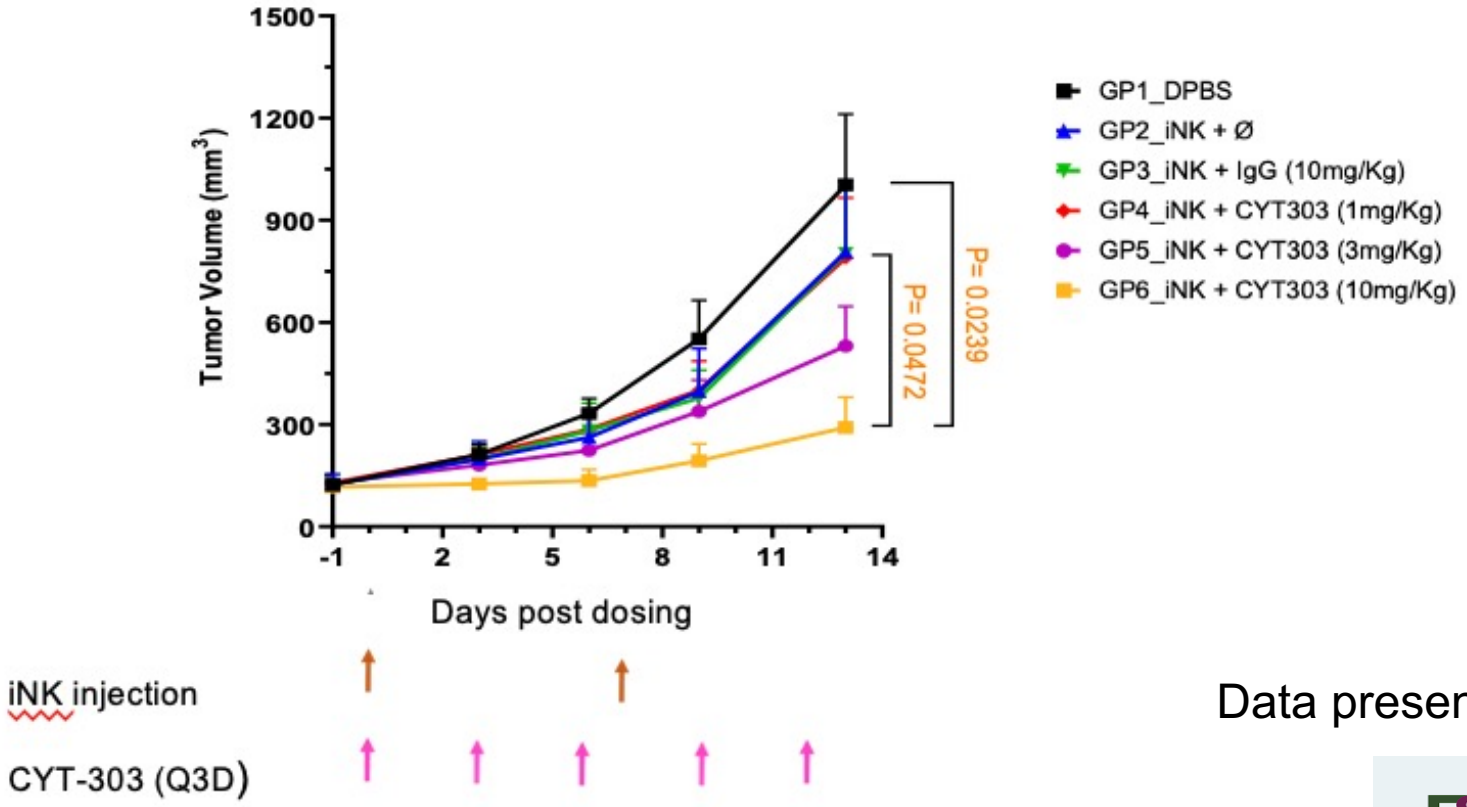
CYT-303 (Q3D)

Arulanandam A, Lin L, Chang H-M, Zou D, Triggiano M, Dilmac N, et al. Abstract 2752: Preclinical characterization of FLEX-NK™ tetravalent NKp46 engager directed against GPC3 (CYT-303) alone or in combination with iPSC derived Natural Killer cells (iNKs) against hepatocellular carcinoma (HCC). Cancer Research. 2022;82(12_Supplement):2752

# CYT-303 Antibodies Demonstrate Improved Dose-Response in HCC Tumor Models in Combination with iNK Cells as well as with PBNK Cells

## CYT-303 & iNK Cells Combination Dose-Response

in NSG-hIL15 mice bearing Hep3B tumors



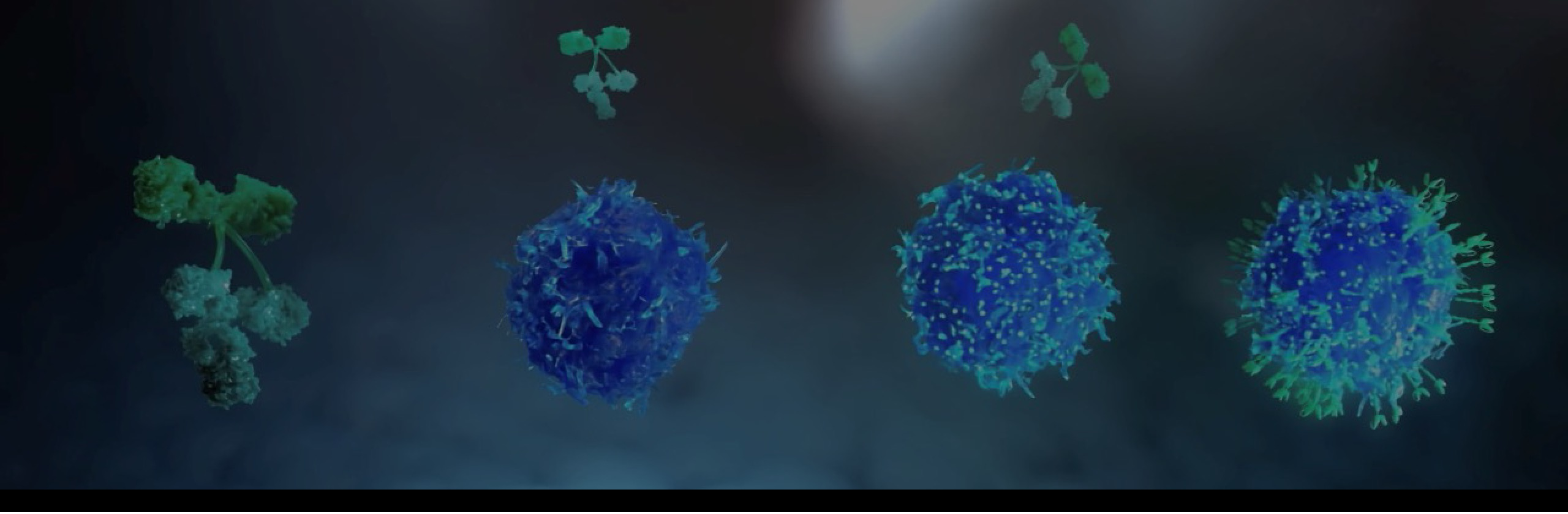

Data presented at ESMO 2022

# CYT-303 Progress Towards IND: Targeting H1 2023

| Milestones | CYT-303 |
|---|---|
| *In vitro* data | ✓ |
| *In vivo* data | ✓ |
| Process Development | ✓ |
| GLP Batch | ✓ |
| Pharmacokinetics | ✓ |
| FDA pre-IND Meeting | ✓ |
| GLP Toxicology | ✓ |
| GMP Manufacturing | **Q1 2023** |
| IND Submission | **H1 2023** |

GLP: Good Laboratory Practices
IND: Investigational New Drug Application
GMP: Good Manufacturing Practices

- GPC3 Flex-NK™ Cell Engagers Showed to Redirect NK Cells to Kill HCC Tumors Cells *in vitro* (data presented at AACR 2022)
- The Combination of CYT-303 and iNKs Showed Greater Tumor Growth Inhibition Compared to iNKs Alone in HCC mouse model (data presented at AACR 2022)
- CYT-303 Demonstrated Improved Dose-Response in Combination with iNK Cells Compared to Combination with PB-NK in HCC Tumor Models (data presented at ESMO 2022)
- CYT-303 Preclinical Data Supported Weekly Administration in Patients (data presented at SITC 2022)
- No toxicity of CYT-303 at up to 20 times expected therapeutic dose in 4-week repeat dose cynomolgus monkey study (data presented at SITC 2022)



# Multiple Myeloma
# & Hematological Malignancies Franchise

# Multiple Myeloma: High Unmet Medical Need Despite Significant Progress

Multiple Myeloma is the 3rd most common blood cancer, with 176,444 new cases worldwide in 2020 and a median overall survival of less than 12 month in patients who have relapsed to standard of care

The multiple myeloma market has grown rapidly over the last 10 years with increased use of biologics and cell therapy to reach $22 billion in 2021. J&J Darzalex CD38 mAb (daratumumab) reached $6.02B sales in 2021.

| What are the outstanding challenges? | | What are the opportunities? |
|---|---|---|
| Autologous CAR-Ts have shown exceptional efficacy & durability but are not a cure | → | Need for allogeneic cell therapies (CAR-T, CAR-NK) & antibodies to address broader segments of Multiple Myeloma patients |
| High cost/product supply/safety monitoring limit use of auto CAR-Ts to a small number of patients | → | Relapsed Autologous CAR-T patients need new options |
| Daratumumab & other antibodies are moving to earlier lines of treatment, leaving a need for alternative therapies in relapsing resisting patients | → | Antibodies alone or in combination with NK cells and other standards of care may provide higher efficacy in earlier lines of treatment |

Source: Am J Pathol. 2018 Sep;188(9):1973-1981; CHBC TAA database, Adis, Cortellis; EvaluatePharma

# Cytovia's Novel CD38-Targeted FLEX-NK™ Bispecific Antibody Showed Better Activity in Vitro Compared to Daratumumab

*CYT-338 Actively Targets and Kills Multiple Myeloma Cells While Sparing Immune Cells*

## CYT-338

### Binding activity and functional activities in vitro:

- Showed dose dependent binding to CD38 expressing MM cell lines with ~ 3-fold higher intensity than anti-CD38 monoclonal antibody (mAb) or daratumumab alone
- Mediated higher patient pbNK cell-redirected cytolysis of MM patient plasma cells compared to Daratumumab
- Showed minimal NK cell fratricide, immune depletion, and cytokine release compared to daratumumab in human PBMCs (published data)

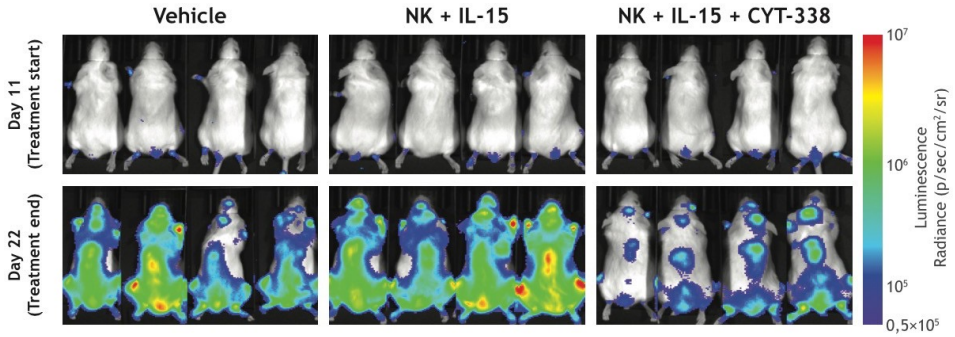
Source: Lin L, Chang H-M, Nakid C, Frankel S, Wu D, Kadouche J, et al. Abstract 3436: Novel multifunctional tetravalent CD38 NKp46 FLEX NK™ engagers actively target and kill multiple myeloma cells. Cancer Research. 2022;82(12_Supplement):343

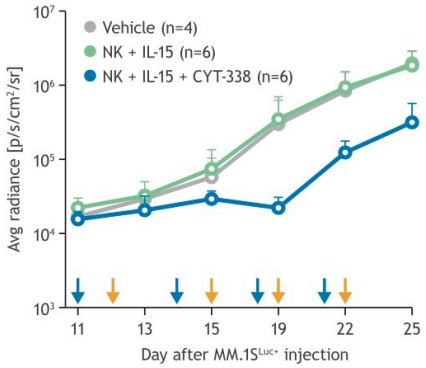
# CYT-338 Antibodies Showed Tumor Growth Inhibition & Improved Survival in *in vivo* Models of Multiple Myeloma

*Our data supports developing CYT-338 as a therapeutic with differentiated functionality compared to daratumumab*

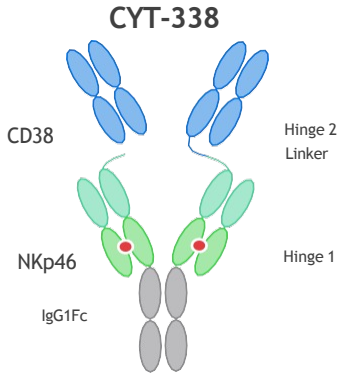
## Functional Activities in vivo

### Tumor growth inhibition

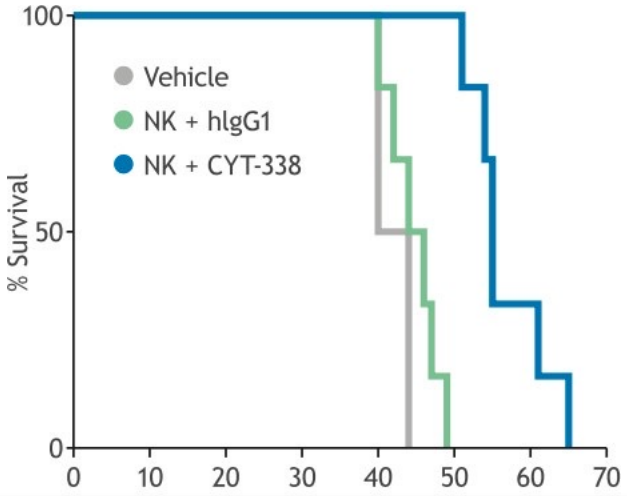



**CYT-338** showed MM1S multiple myeloma tumor growth inhibition in NSG mice injected with PBNK cells and hIL-15.




### Improved survival



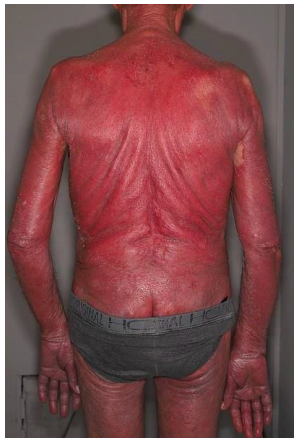

**CYT-338** treated NOG-hIL15 mice showed significantly greater survival compared to vehicle treated mice in a MM1S multiple myeloma tumor model

Source: Lin L, Chang H-M, Nakid C, Frankel S, Wu D, Kadouche J, et al. P842: NOVEL MULTIFUNCTIONAL TETRAVALENT CD38 NKP46 FLEX-NK ENGAGERS ACTIVELY TARGET AND KILL MULTIPLE MYELOMA CELLS. HemaSphere. 2022;6:736-7.

# Potential Accelerated Development: Advanced Cutaneous T-Cell Lymphoma

*Opportunity to accelerate early development of CD38-targeted Flex NK™ bispecific antibody in patients with advanced CTCL*

- Sézary syndrome is the leukemic form of Cutaneous T-Cell Lymphoma ("CTCL") and accounts for approximately 5% of all CTCL, which accounts approximately 4% of all non-Hodgkin's lymphomas.
- Median survival of patients is approximately 5 years.



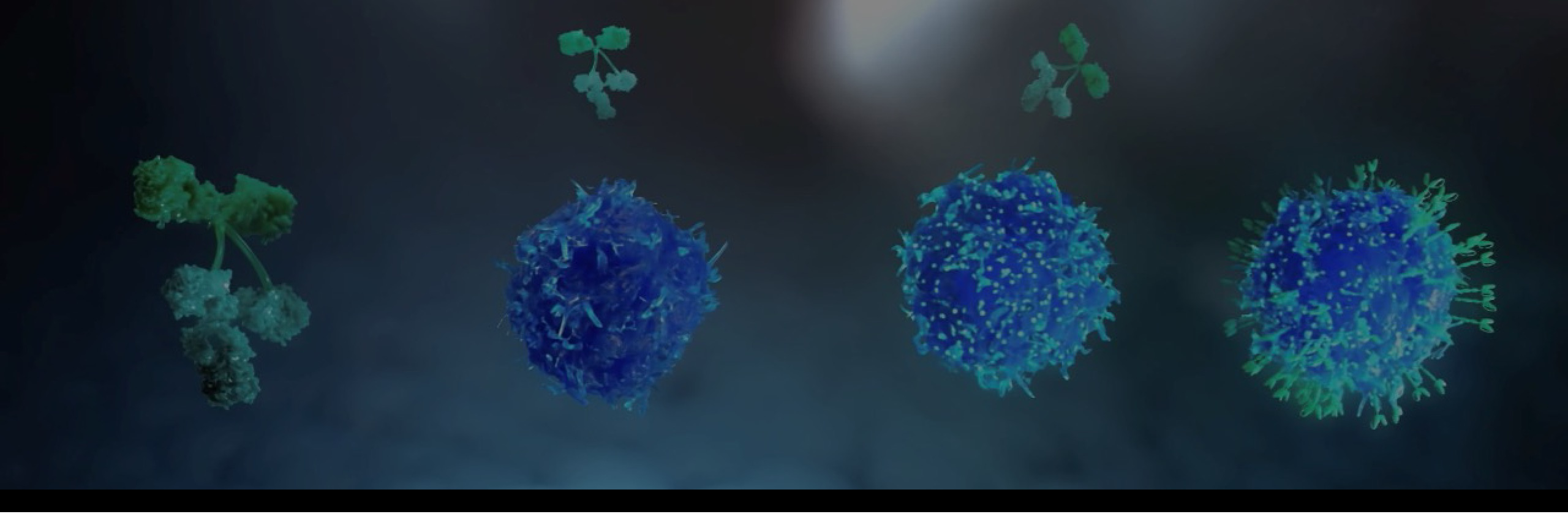
**Data obtained in collaboration with Inserm highlighted:**

- CD38 expression in peripheral blood tumor cells of patients with relapsed CTCL
- In vitro efficacy on anti-CD38 MABs in CTCL.

**Collaboration between Cytovia & Inserm to test CYT-338 in Sezary Syndrome**

- Translational Study in CTCL patient cells IIT in 20 CTCL patients
- IIT in 20 CTCL patients
- Opportunity for fast-track clinical development and approval

Inserm
Institut national de la santé et de la recherche médicale



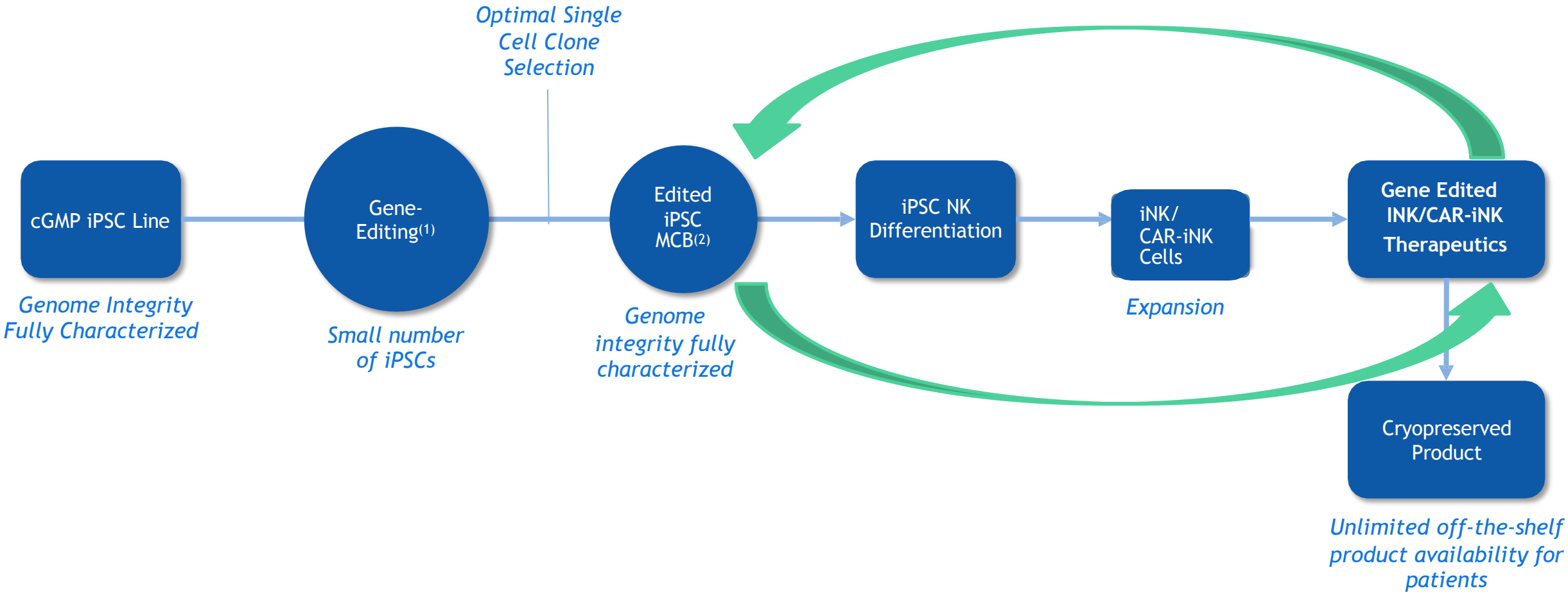
# Cytovia Therapeutics

## Optimally Designed Natural Killer Cell Therapeutics

# iPSC Technology: The Key To Lower-Cost, "Off-the-Shelf" Cell Manufacturing & Consistent Gene-Editing

| Donor-derived approaches are limited by: | Advantages of iPSC-derived approach: |
|---|---|
| ▶ Batch-to-batch variation<br>▶ Capacity bottleneck<br>▶ Challenging repetitive quality control needed to eliminate off-target gene edits | ▶ **Streamlined, lower-cost manufacturing** with gene-editing as a one-time event<br>▶ **Consistent "off-the-shelf" product** from optimally-designed, single-iPSC clone (Master Cell Bank)<br>▶ **Easier quality control** supporting homogeneous and consistent products, even when complex gene-editing is used |

# Fully-Integrated In-House Process Development Capabilities for Gene-Edited iNK / CAR-iNK Cell Platform



# Augmenting the Persistence and Performance of iNK Cells through TALEN® Gene-Editing

## Gene-editing can be used to create permanent modifications and:

- Augment NK cell anti-tumor functions by targeted CAR insertion
- Ability to knock-in or knock-out specific genes involved in NK activity such as cell exhaustion, activation, tolerance, and memory

## Competitive advantages of TALEN® over other gene-editing tools:

- TALEN® demonstrates higher target specificity with customized nucleases for specific loci compared CRISPR/Cas9
- TALEN® demonstrates comparable knock-in and knock-out efficiency to Cas9

Cytovia Therapeutics
Allogeneic, iNK & CAR-iNK Expertise

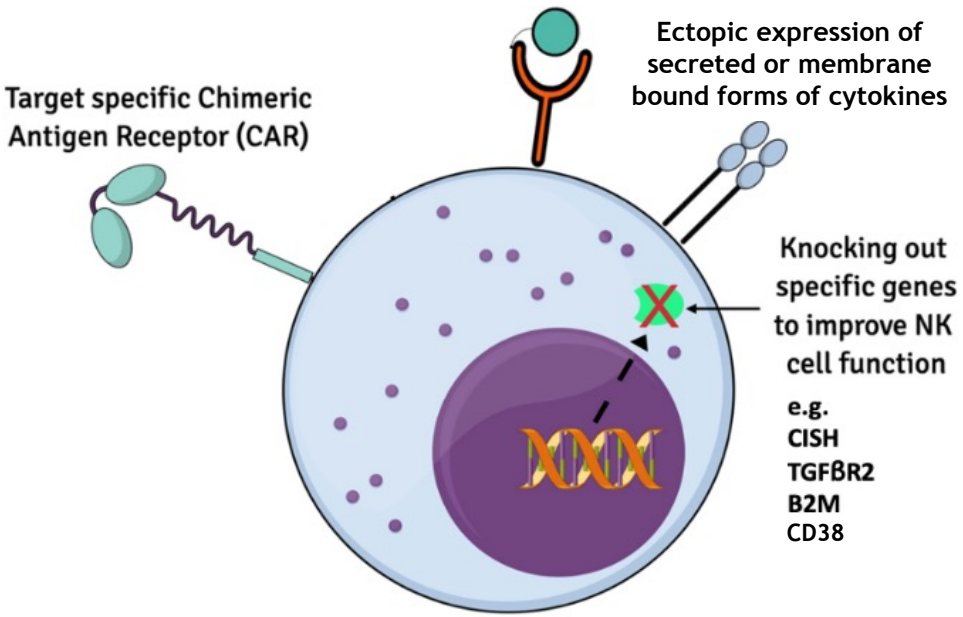
+

Cellectis EDITING LIFE
TALEN® Gene-Editing Expertise

→ TALEN® Gene-Edited iNK and CAR-iNK Cells

# TALEN ® Gene Editing Strategies to Improve the Performance of iNK Cells

## Cytovia pursuing Multiple Specific Gene Edits to support a differentiated iNK/CAR iNK pipeline[1,3]



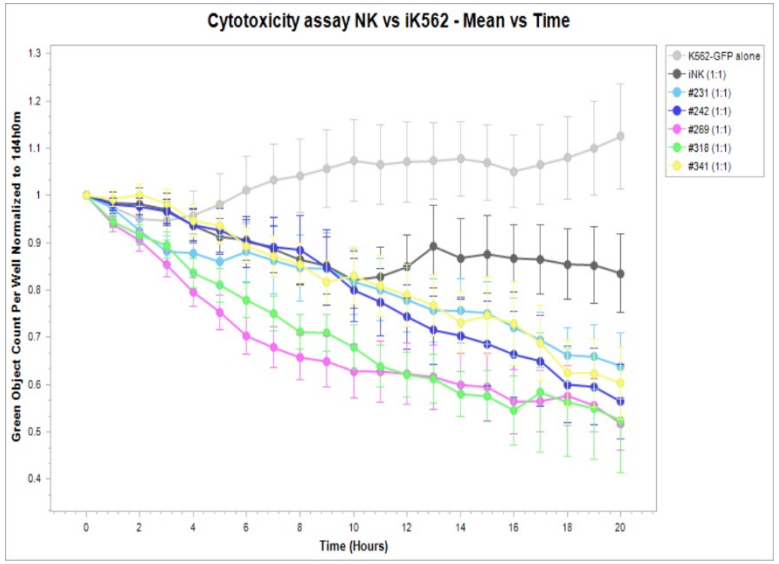

- **NK cell specific CAR** directs cells to the tumor and improves anti-tumor activity
- **IL-15** (and other cytokines) stimulate NK cell expansion and cytotoxic functions and have also been shown to mitigate immunosuppression
- **(TGF)-ß2 Knock-Out** reduces immunosuppressive signaling
- **CISH Knock-Out** improves NK cell function by reducing negative regulation of IL15 by CISH (pending licensing agreement)
- **B2M knock-out** reduces immune rejection by HLA-1 structure disruption
- **Double knock-out CD38 and CISH** in iNK cells support combination with CD38 FLEX-NK™ Bispecific Antibodies and as backbone of CD38 CAR iNK[3]

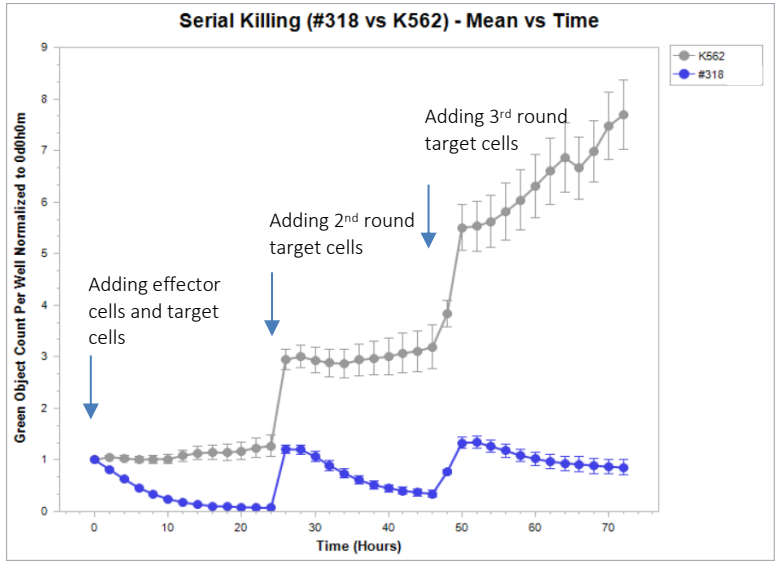
1) Source and Graphic (modified): Front. Immunol., 03 February 2022, Sec. Cancer Immunity and Immunotherapy
https://doi.org/10.3389/fimmu.2022.841107

# TALEN ® Gene Editing Improves the Performance of iNK CYT-150 Cells Showing Enhanced Cytotoxicity & Persistence

| | % of CD56+ cells |
|---|---|
| iNK from clone 242 | 98.28% |
| iNK from clone 269 | 96.94% |
| iNK from clone 318 | 96.72% |
| iNK from clone 341 | 96.85% |

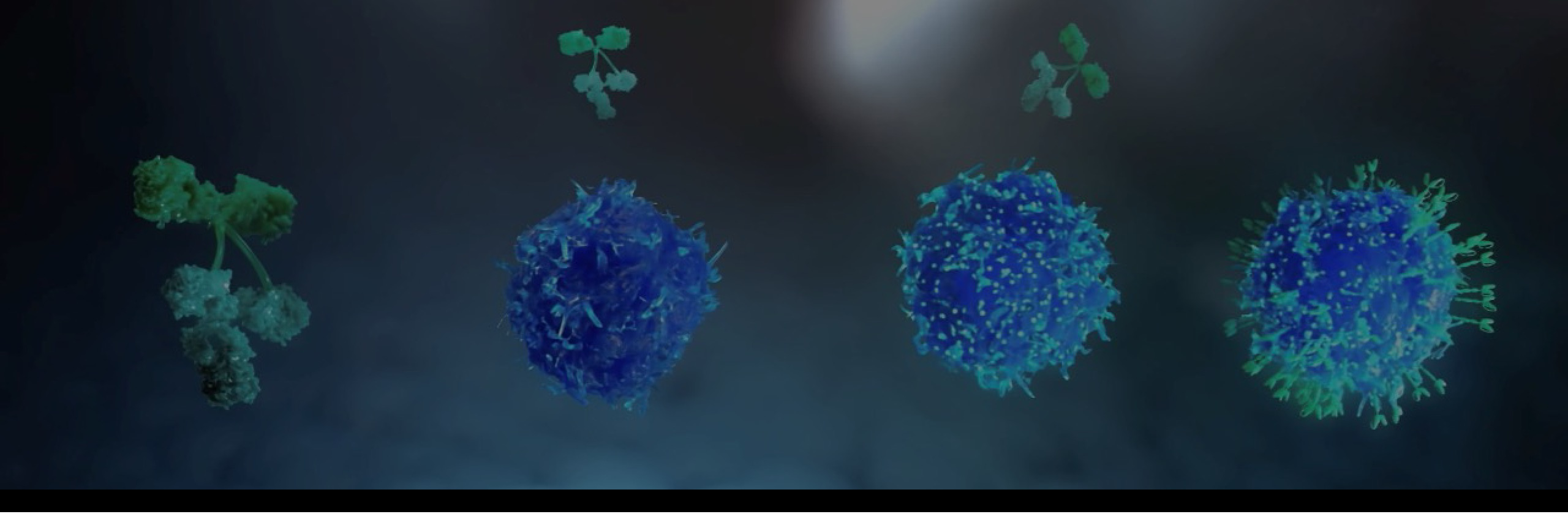
| iNK clone | IL-15 KI | TGFbR2 KO |
|---|---|---|
| 242 | + | - |
| 269 | - | + |
| 318 | + | + |
| 341 | + | + |




**→ In all edited iNK cells, cell killing is always better compared to unedited iNK cells**

**→ Serial killing of double edited iNK cells keeps the ability to kill over 3 rounds of killing**



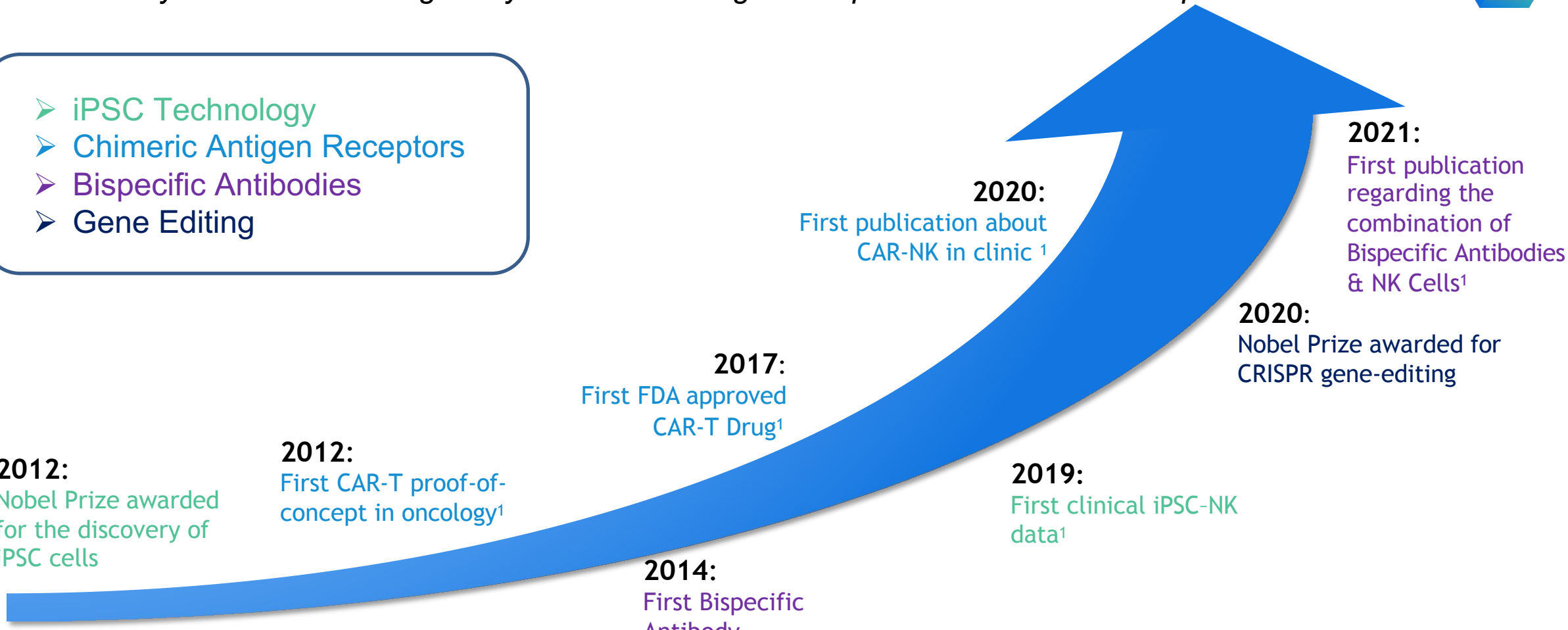
# Cytovia Therapeutics

## Investment Considerations

# Key Developments in Immuno-Oncology Support Cytovia's Vision

*Cytovia is harnessing 4 key novel technologies to optimize its NK cell therapeutics*

- iPSC Technology
- Chimeric Antigen Receptors
- Bispecific Antibodies
- Gene Editing




(1) To our knowledge

# Cytovia Value Creation:
# From Vision to Operational Execution and Upcoming Clinical Milestones

## 2019-2020
## Vision & Discovery Partnerships

Leveraging Two Cutting-Edge Technology Platforms To Develop First-in-Class Immune Cell Therapeutics

NIH National Cancer Institute · UCSF · Inserm · NYSCF · Yissum · cellectis Editing Life · CytoImmune Therapeutics

## 2020-2021
## Building Capabilities

Advancing our programs through preclinical development & manufacturing

*Cytovia Therapeutics*

- **Miami:** Finance, Clinical Development, Business Development
- **Boston (R&D):** Cell Therapy & Gene Editing Center of Excellence, Pre-clinical Development

*Partnerships*

- **STC (Boston):** Antibody Process Development & GMP Manufacturing
- **CytoLynx (Shanghai):** R&D, GMP Manufacturing, Clinical Development

## 2021-2022
## Operational Execution

Advancing Towards a Clinical Stage Public Company

- ✓ Validated Process Development for iNK Cells, Gene-Editing, and Bispecific Antibodies
- ✓ Data Generation & Presentation at Major Conference
- ✓ IND Readiness & Clinical Trial Planning
- ✓ Audited Financials & IPO/Public Company Readiness

## 2023 & Beyond
## Clinical Milestones & Development Partnerships

- 2 Flex-NK™ Bispecific Antibody INDs in H1 2023
- Initial Clinical Data for GPC3 & CD38 programs in H1 2024
- INDs for Gene-Edited iNK & CAR-iNK Cells in 2024