

***A transformational approach bringing peptide nanotechnology and artificial intelligence together.***

**Dr. Anthony Maida**  
**Co-Founder, Chairman and CEO**

*February 2026*

# Executive Summary



## Curative Potential

- **First-in-class breakthrough technology** could further revolutionize use of immune checkpoint inhibitors in a \$50B global market
  - **100% overall survival** in animal models

## Efficient Strategy

- Strategy of fast-to-clinic, fast-to-market development plan with current development candidate leads to **efficient use of capital**
  - File IND for lead asset in about 2 years

## Experienced Team

- Led by management team of **industry veterans** with over 120 years of combined experience

## Upside Potential

- Platform technology creates upside potential from **future pipeline products** in other oncology and non-oncology indications

# Transformational Nano Immuno-Engager (NIE)

Efficacy of immune checkpoint blockade therapy is currently limited by:

- (1) ineffective infiltration of effector T cells to tumors
- (2) immunosuppressive tumor micro-environment

| Tumor Type | Response Rate |
|------------|---------------|
| melanoma   | 40%           |
| NSCLC      | 25%           |
| others     | <10%          |

**NIE** overcomes existing cancer treatment limitations with:

- **Enhanced efficacy** of checkpoint inhibitors via 3-pronged mechanism:
  - ✓ prolong the retention of the immunomodulatory agent within the tumor micro-environment (“TME”)
  - ✓ capture the immune cells at the TME
  - ✓ activate the immune system
- **Superior safety profile** by sparing healthy tissues and organs

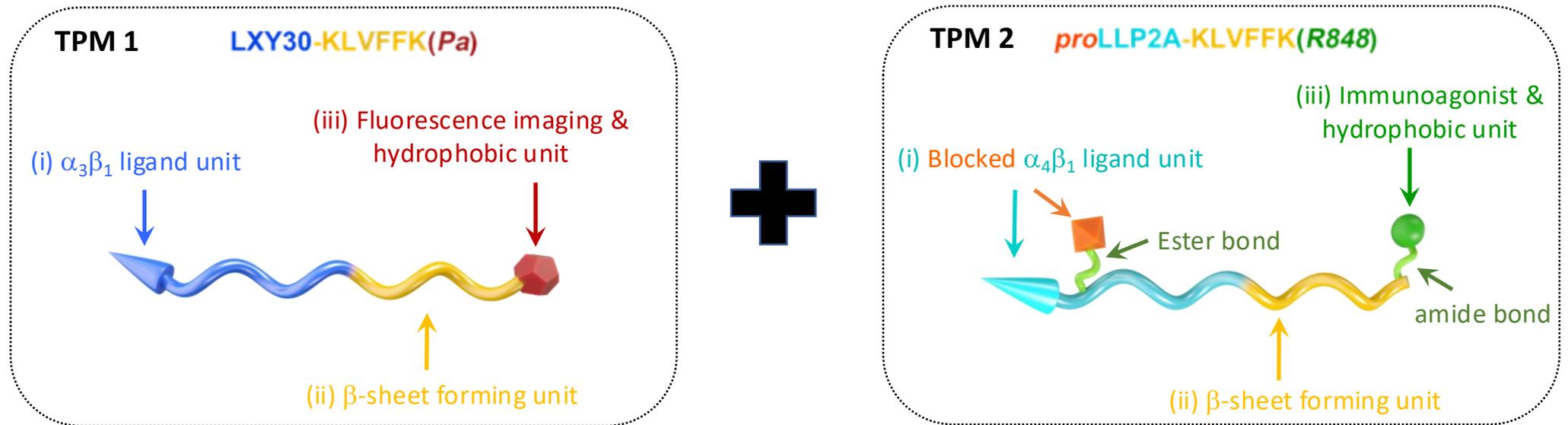
➤ **100% cure** in syngeneic lung and breast cancers in mice

# Flexibility to Design Therapeutics for a Wide Range of Uses

- **Modular design** provides ability to customize NIE for a particular application
  - **Proprietary ligand** targets tumor-specific cell surface antigen
  - **Cargo** could be immunomodulator or therapeutic agent
- **Any solid tumor type** could be targeted with NIE
- **Beyond oncology**, future therapeutic applications include
  - inflammatory diseases
  - infectious diseases
  - others

Lead asset = 1<sup>st</sup>-in-class NIE immunomodulator combined with anti-PD1 in lung cancer and other solid tumors

# Nano Immuno-Engager: Drug Composition



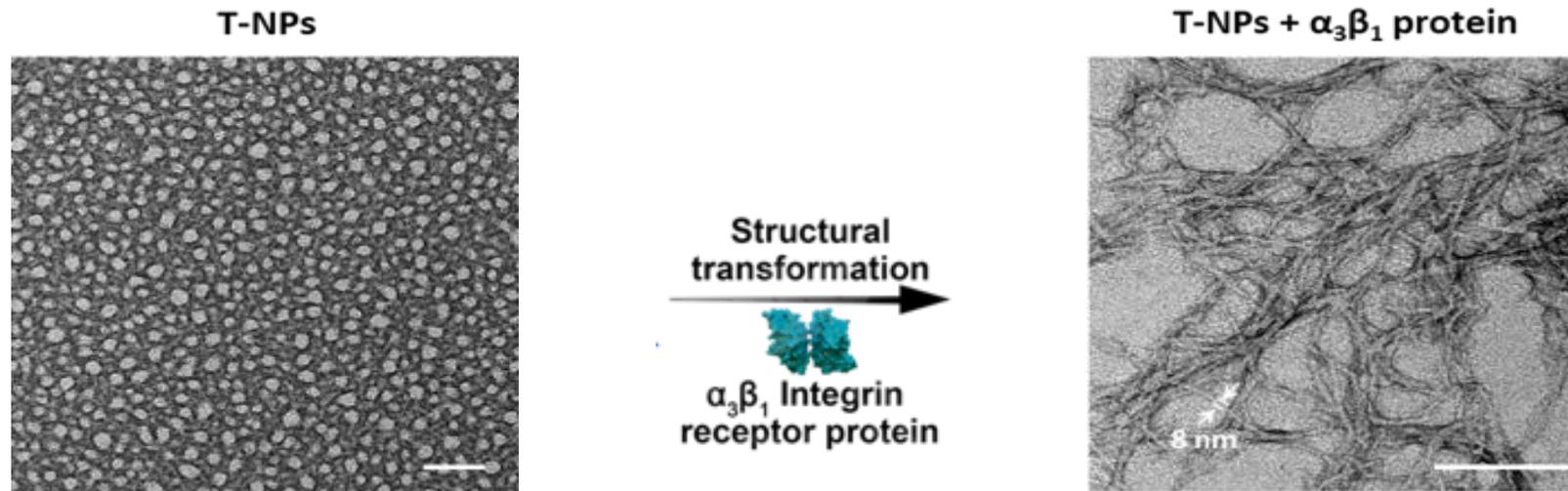
Our therapeutic **drug** consists of two peptides: Transformable Peptide Monomers (“TPM”) 1 and TPM 2, that contain molecules targeting cancer; and molecules that aggregate the peptides together to form a nanoparticle.

## Key Domains:

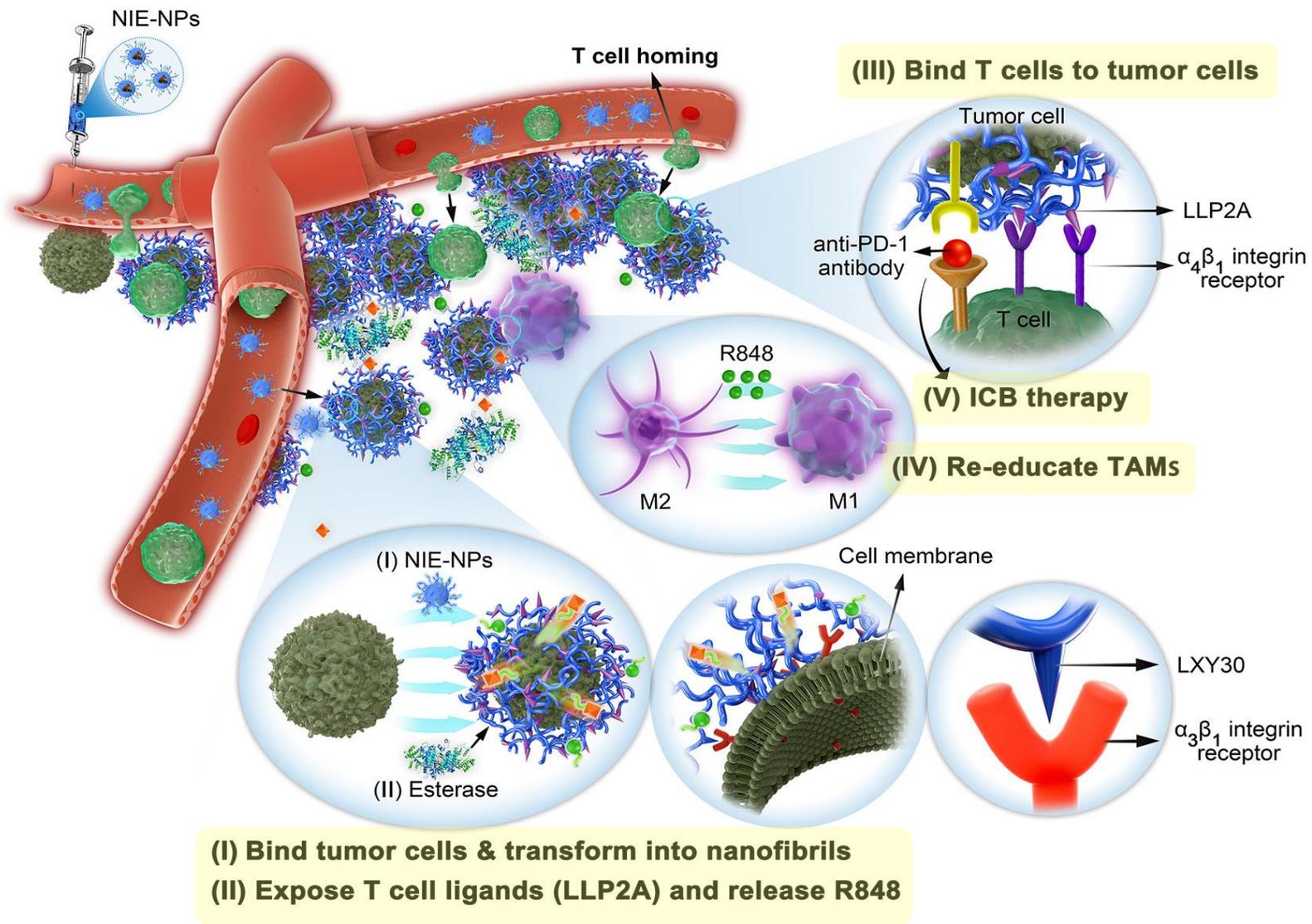
- **KLVFFK**: Proprietary structure required to aggregate the peptides together to form a nanoparticle
- **R848**: Resiquimod cargo is a potent immuno-stimulant
- **LLP2A**: Proprietary ligand to capture the immune cells
- **LXY30**: Proprietary ligand that targets the  $\alpha_3\beta_1$  integrin heterodimeric transmembrane receptor expressed by many epithelial tumors with high metastatic potential

# Transformation of Nanoparticles into a Nanofibril Network

*Upon interaction with  $\alpha_3\beta_1$  integrin receptor protein*



# Our NIE: Activation of the Tumor Microenvironment



# Target Market – Solid Tumors

*A significant opportunity remains to benefit patients on ICI*

## Immune Checkpoint Inhibitors:

*Foundation of Immuno-Oncology Treatment*

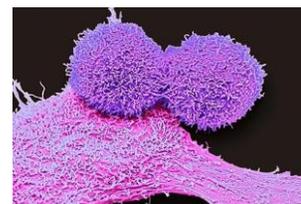
- **44%** of US cancer patients are **eligible** for Immune Checkpoint Inhibitors (“ICI”)\*
- Nearly **half** of all patients with metastatic cancer in economically developed countries are **eligible** to receive ICI\*\*
- **32%** five-year **overall survival** rate for Non-Small Cell Lung Cancer (“NSCLC”) patients\*\*\*

## Annual Diagnosed Cases



NSCLC

- US: >190K†
- Global: >1.75M††



Breast

- US: 300K†
- Global: >2.25M††



Melanoma

- US: 97K†
- Global: 325K††

\*JAMA Netw Open. 2020;3(3):e200423. doi:10.1001/jamanetworkopen.2020.0423

\*\* Immune-checkpoint inhibitors: *Nature Rev Clin Oncol* 19, 254–267 (2022)

\*\*\*Journal of Clinical Oncology: Abstract KEYNOTE 024

† American Cancer Society 2023

†† Cancer.net 2020 data,

# The Technology: Contributing to Better Patient Outcomes

## *Addressing Unmet Immuno-Oncology Needs*

### *Lead Program / First-in-Class: Nano Immuno-Engager (“NIE”)*

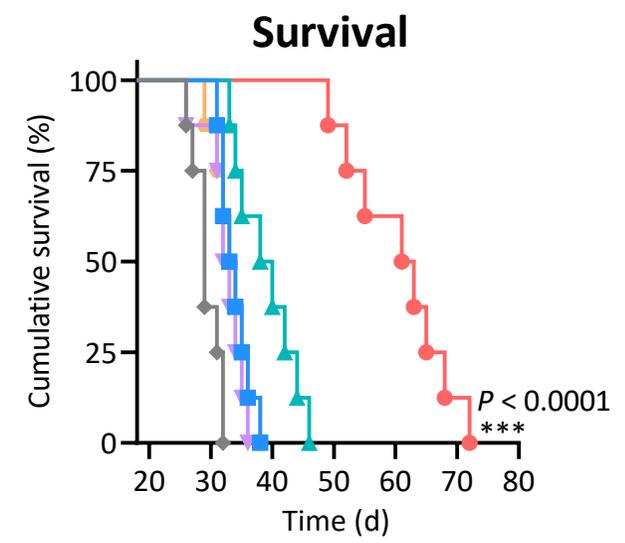
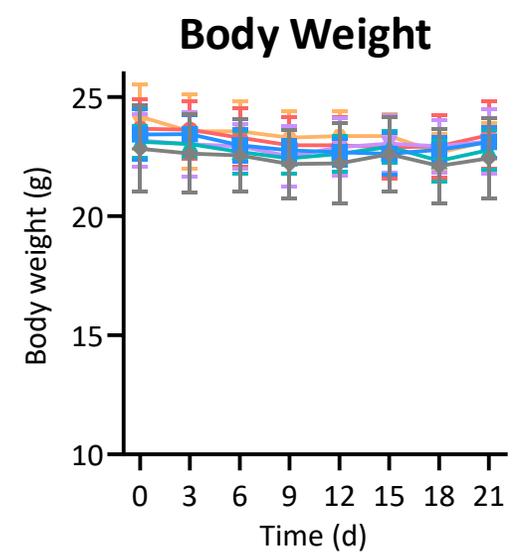
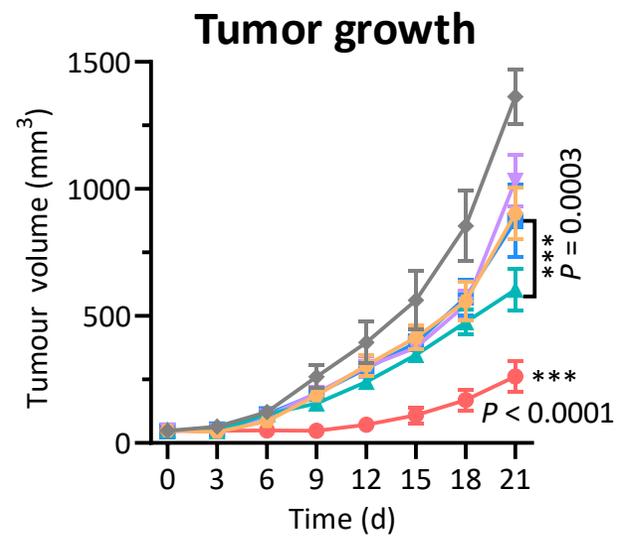
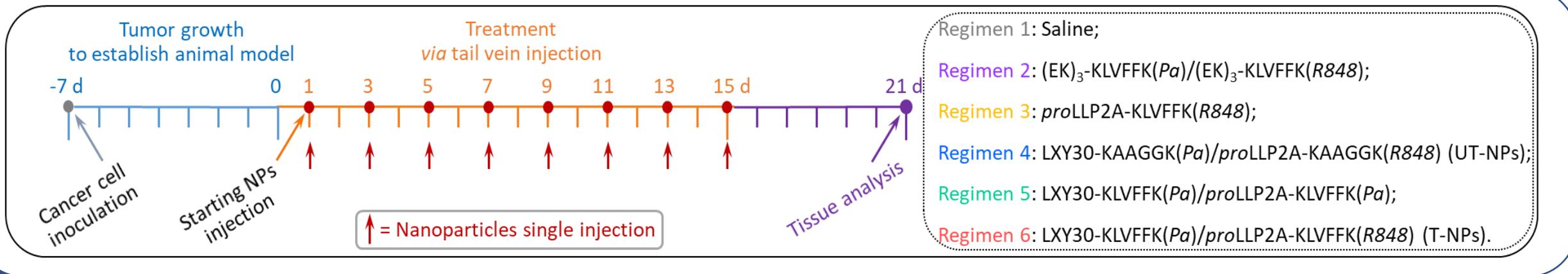
Pre-clinical results:

- **100% cure** in relevant murine mouse models of Breast and Lung Cancer in combination with anti-PD-1
- Demonstrated **durability**
- **No** observed **toxicity**
- Ability to turn immunologically “cold” tumors **“hot”**

**Technology spun-off from the University of California Davis Cancer Center**

# NIE: Monotherapy in 4T1 Murine Breast Cancer Model

*Potential to be used for Patients not eligible for ICI's*

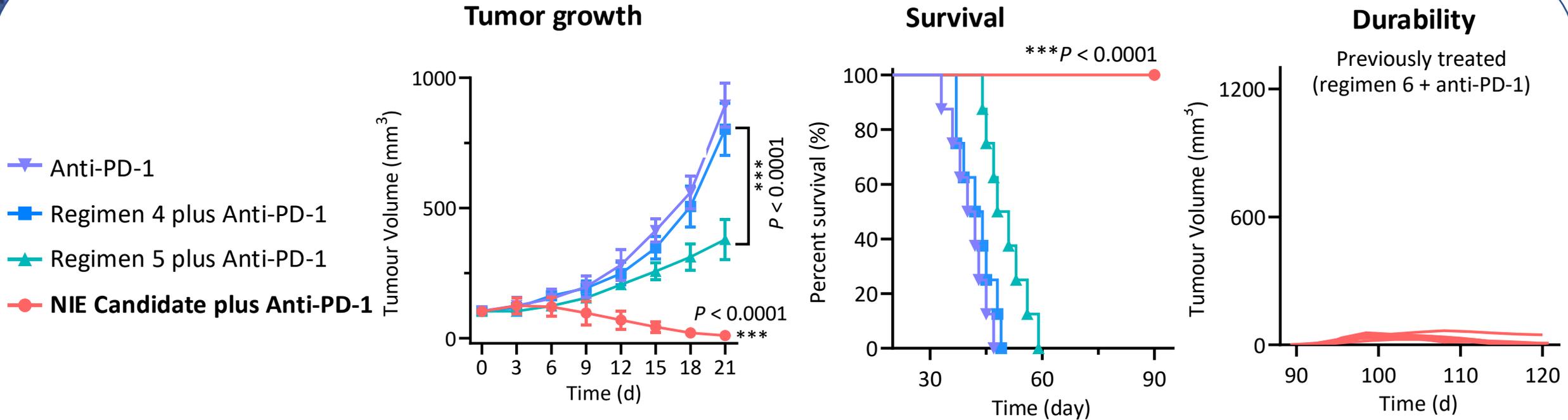


4T1 Breast Cancer Model  
 – an aggressive tumor model  
 N = 8 mice per regimen

Note: Zhang and Lam, et al. *Nano Letters*

# Combination Therapy: Our NIE + anti-PD-1 in Breast Cancer Model

*We Demonstrated Memory Response and Durability in Mice;  
Reinoculation of 4T1 Breast Cancer Cells on Day 90*



Regimen 4: Construct excluded KVLFFK (un-transformable negative control)

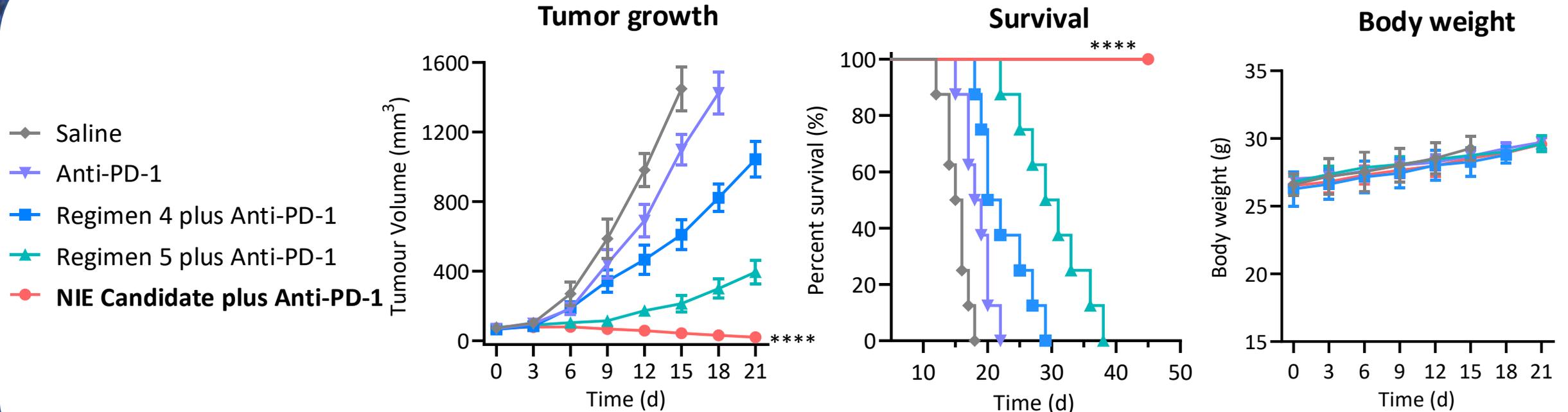
Regimen 5: Construct excluded R848 Resiquimod

4T1 Breast tumor model  
N = 8 mice per regimen

Note: Lu and Lam. *Nano Letters* 22:6866-6876, 2022

# Combination Therapy: Our NIE + anti-PD-1 in Lung Cancer Model

*Demonstrated Tumor Inhibitory Effect with No Change in Body Weight*



Regimen 4: Construct excluded KVLFFK (un-transformable negative control)

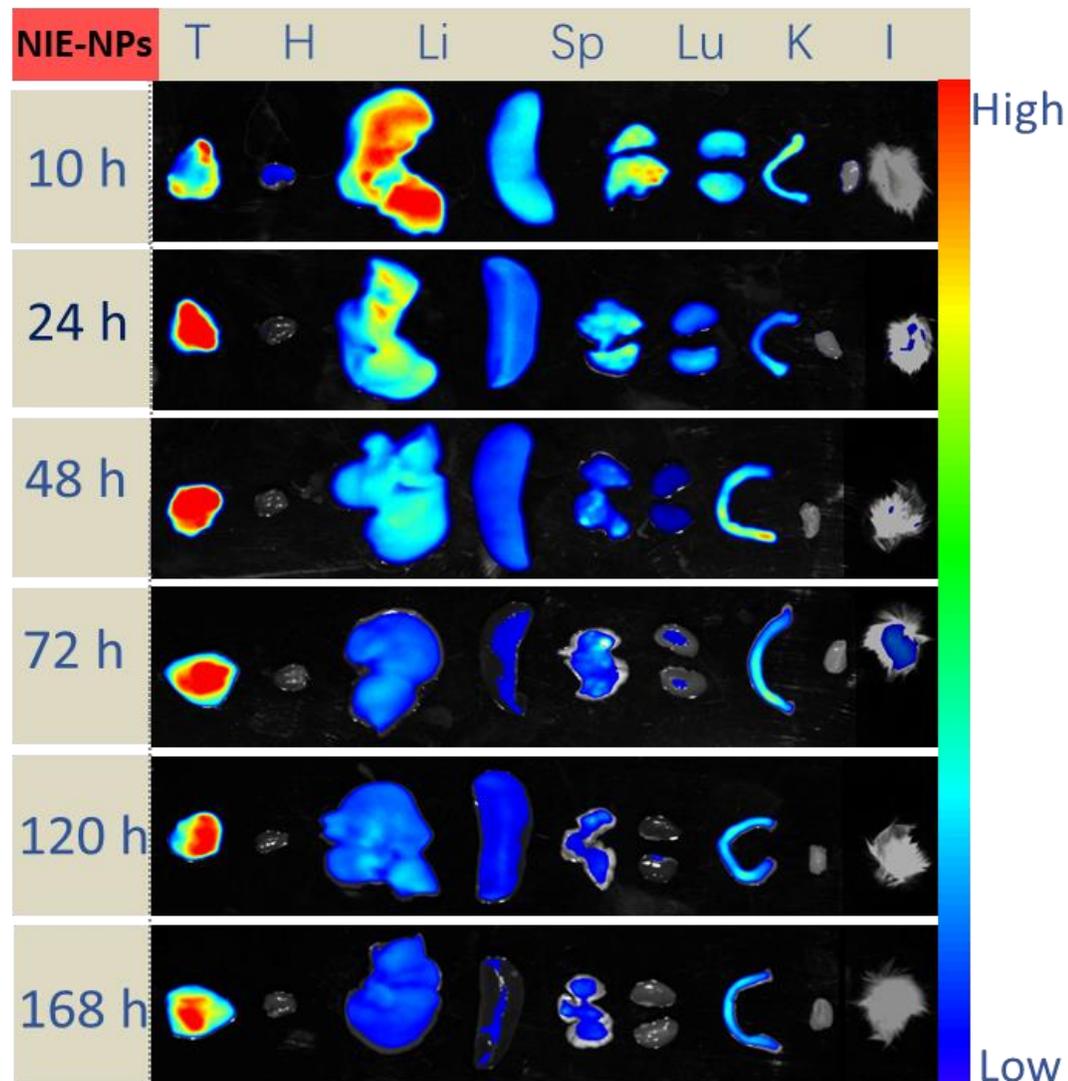
Regimen 5: Construct excluded R848 Resiquimod

Lewis Lung Cancer Model  
N = 8 mice per regimen

Note: Lu and Lam. *Nano Letters* 22:6866-6876, 2022

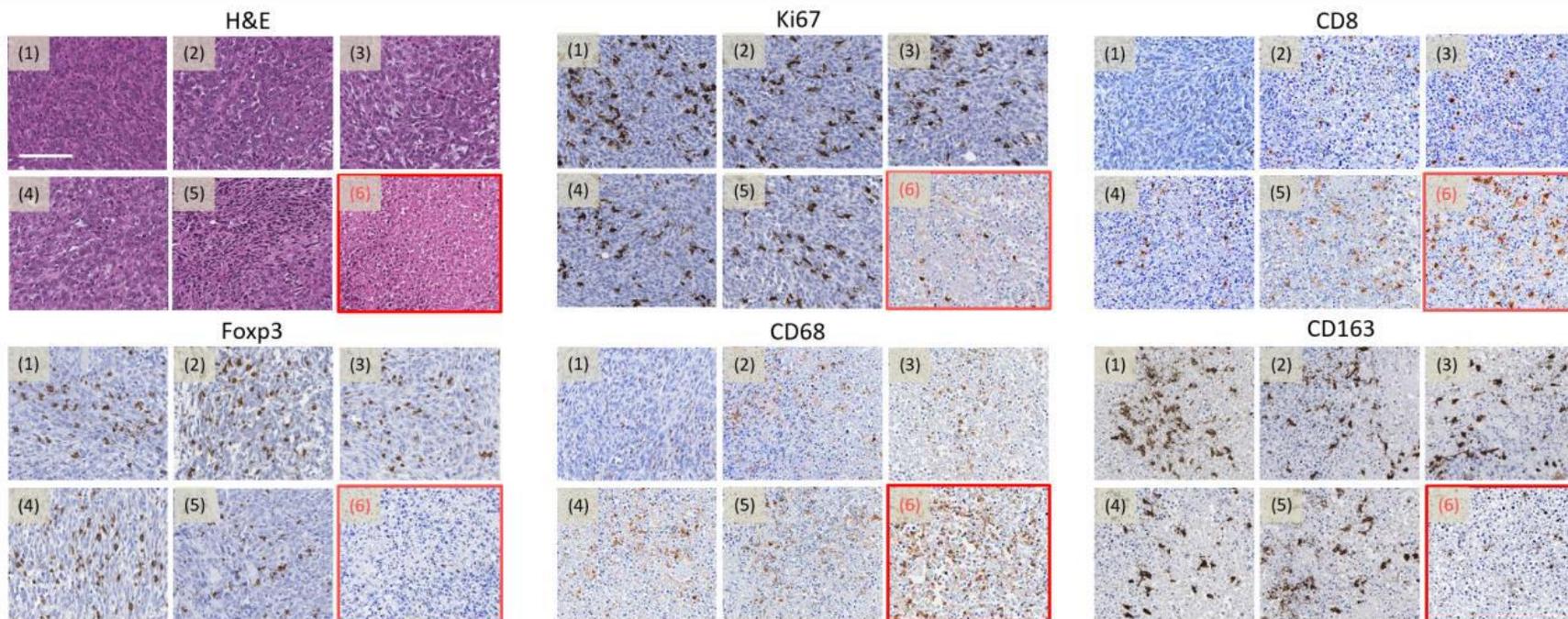
# Our NIE: Durability with no Off-Target Systemic Toxicity

- Prolonged retention of the immunomodulatory agent and capturing of the immune cells at the TME
- Rapid clearance in off target organs --
  - T: Tumor
  - H: Heart
  - Li: Liver
  - Sp: Spleen
  - Lu: Lung
  - K: Kidney
  - I: Intestine
- No indications of toxicity in gross histology
- Steady weight gain for all animals throughout the study

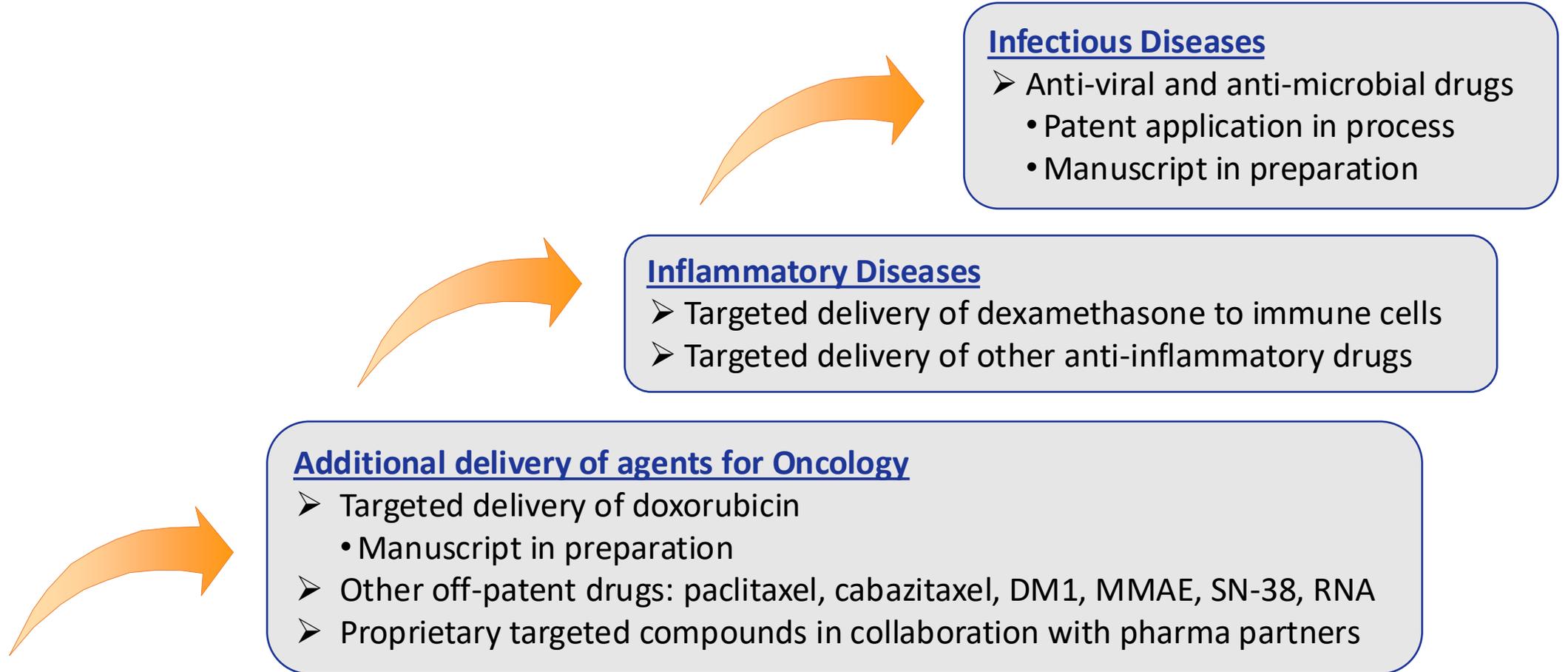


# Changes in the Tumor Microenvironment Pre and Post Therapy

Recruitment of CD8, reduction of Foxp3, and conversion of M2 macrophages (CD163) to M1 macrophages (CD68)



# Diversity of Applications Creates a Strong Basis for Growth



References:

*Advanced Delivery Reviews* 157 (2020) 161-178

*Nature Nanotechnology* Vol 16 April 2021 369 -384

# Our Diversified Portfolio and Clinical Approach

*One validated preclinical lead candidate  
with potential for several platform establishing indications*

| Platform                  | Indication   | Discovery   | IND-enabling | Clinical |
|---------------------------|--|---|--------------|----------|
| <b>NIE*</b>               | NSCLC, Melanoma<br>Breast, Head and Neck<br>Squamous Cell<br>Carcinoma (“HNSCC”) |  |              |          |
| <b>Other Applications</b> | Solid Tumors   |  |              |          |

\* The Phase I/II study will include two arms; patients with NSCLC and a second arm which will be a basket study that may include patients with melanoma, breast, HNSCC and other malignancies.

- *With substantial improvement over existing therapies, FDA **Fast Track** and/or **Breakthrough Therapy** designations are possible.*

# Planned Clinical Trials for Development of First NIE

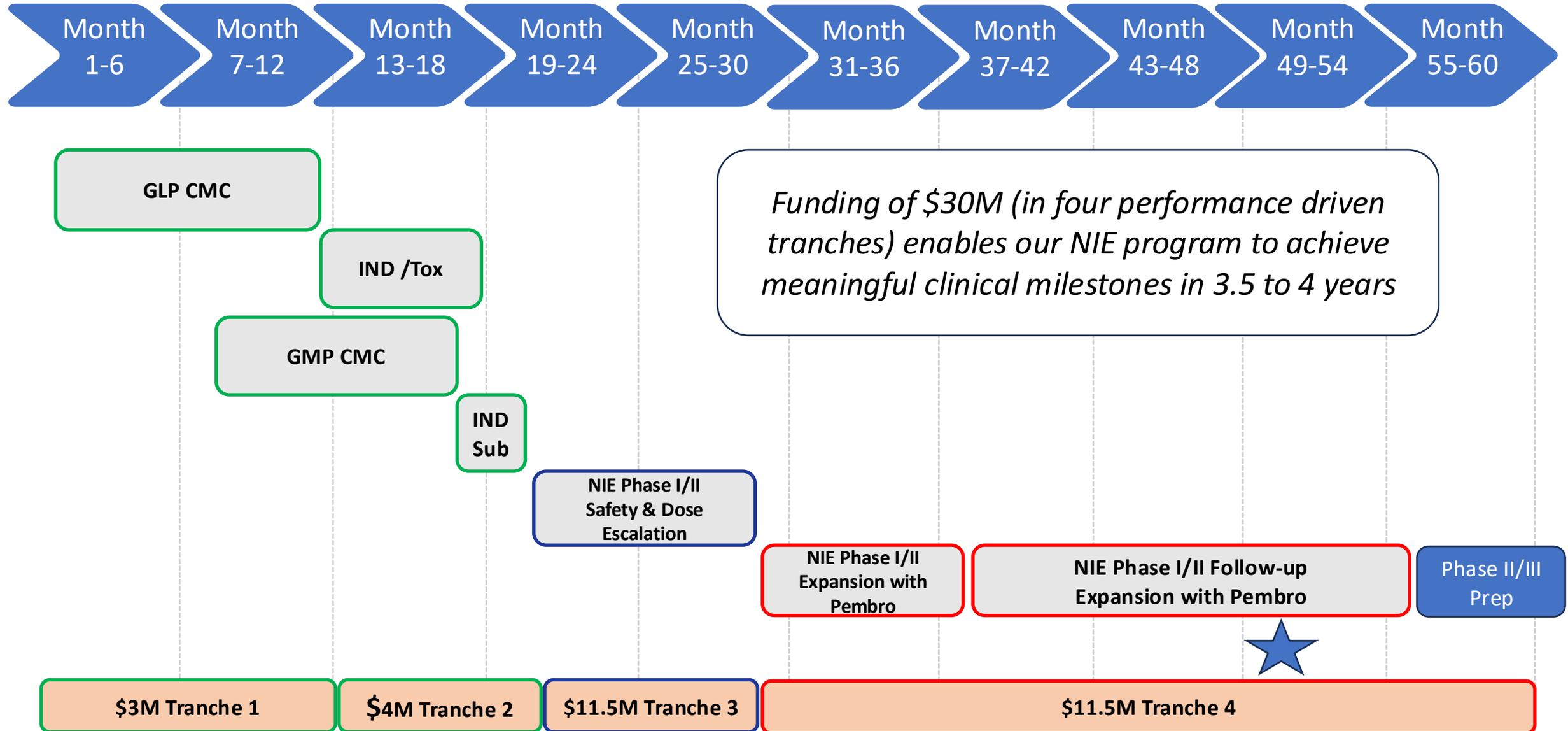
- Phase I/II Study with a potential of three arms
  - 1) lung cancer
  - 2) basket of breast, HNSCC, possibly GBM
  - 3) perhaps a third melanoma cohort
- Dose Escalation followed by Dose Expansion; a potential for sequential biopsies
- Within four (4+) years followed by an Adaptive Phase II/III clinical trial of 300 patients
- Protocol Drafted – first study with University of California Davis Comprehensive Cancer Center under a clinical research agreement

# Artificial Intelligence to Predict Patient Response

## *Precision enrollment insights to maximize Probability of Success*

- Patient response to be characterized by strength and breadth of immune response in the tumor microenvironment
  - RNA Seq – interrogating 800 genes – pre and post clinical therapy via sequential biopsies if tissue location amenable
  - Changes in phenotypic and spatial distribution of multiple immune cells, pre and post therapy
  - Changes in cytokine expression – pre and post therapy
  - Changes in MDSCs, Tregs – pre and post therapy
- Artificial Intelligence / Machine Learning to identify biomarkers that predict response and clinical efficacy
  - In collaboration with INSERM (French NIH) led by Dr. Jerome Galon

# Our Clinical Plan & Funding Needs: Reaching Value Enhancing Milestones



# Committed & Experienced Leadership

## Leadership Team



Anthony Maida III, PhD  
Chief Executive Officer  
Chairman of the Board



Robert Pierce, MD  
Chief Medical Officer



Patrick Bigot, MBA  
Chief Business Officer



Seymour Fine, MD  
Head of Regulatory Affairs



## Board of Directors



Anthony Maida III, PhD  
Co-founder, CEO  
Chairman of the Board



Kit Lam, MD, PhD  
Co-founder, SAB Chair  
Board Member



Richard Slansky  
Board Member



Bernice Welles, MD  
Board Member



William Ashton  
Board Member



# SAB: An International Who's Who of Cancer Immunotherapy

## Scientific Advisory Board



Kit Lam, MD, PhD  
Chair Scientific Advisory Board  
Board Member



Jose Lutzky, MD  
Director, Cutaneous Oncology  
at Sylvester Comprehensive  
Cancer Center, Miami, FL



Jerome Galon, PhD  
Director of Research at INSERM  
and Head of an INSERM laboratory  
at the Cordeliers Research Center  
in Paris, France



James Talmadge, PhD  
Professor, Department of  
Pathology and Microbiology,  
UNMC, Omaha, NE



Primo Lara, MD  
Director UC Davis NCI-Designated  
Comprehensive Cancer Center, Exec  
Associate Dean, Cancer Programs,  
Professor, Department of Internal  
Medicine, Sacramento, CA



Kim Margolin, MD  
Medical Director of the Melanoma  
Program at Saint John's Cancer  
Institute (SJCI), Santa Monica, CA



David Gandara, MD  
Professor at UC Davis NCI-  
Designated Comprehensive Cancer  
Center, Sacramento, CA

# We are Well Positioned to Manage Technology & Execution Risks

| Risk   | Mitigation   |
|--|--|
| <i>Competing nanoparticle peptide technology</i>                             | <ul style="list-style-type: none"><li>• First-to-market mindset</li><li>• Robustness of the technology enables expanded patent claims</li><li>• Rapid Phase I/II execution and developed plans progress to a proposed adaptive study</li></ul> |
| <i>Manufacturing &amp; scale-up</i>  | <ul style="list-style-type: none"><li>• Demonstrate commercial scale feasibility at the GLP stage</li></ul>  |
| <i>Slow clinical trial enrollment</i>  | <ul style="list-style-type: none"><li>• Expansion of clinical sites to include the UC Cancer Consortium and NCI-designated Comprehensive Cancer Centers</li></ul>  |
| <i>Limited nano immuno-engager clinical results</i>                          | <ul style="list-style-type: none"><li>• Second product development of HER2+ in various indications</li></ul>   |
| <i>Unknown or unanticipated risks</i>  | <ul style="list-style-type: none"><li>• Experienced broad cross functional management team &amp; scientific/clinical advisors</li></ul>  |
| <i>Macro-economic environment and difficult US capital investment market</i> | <ul style="list-style-type: none"><li>• Non-dilutive financing options</li><li>• International economic interest</li></ul>   |

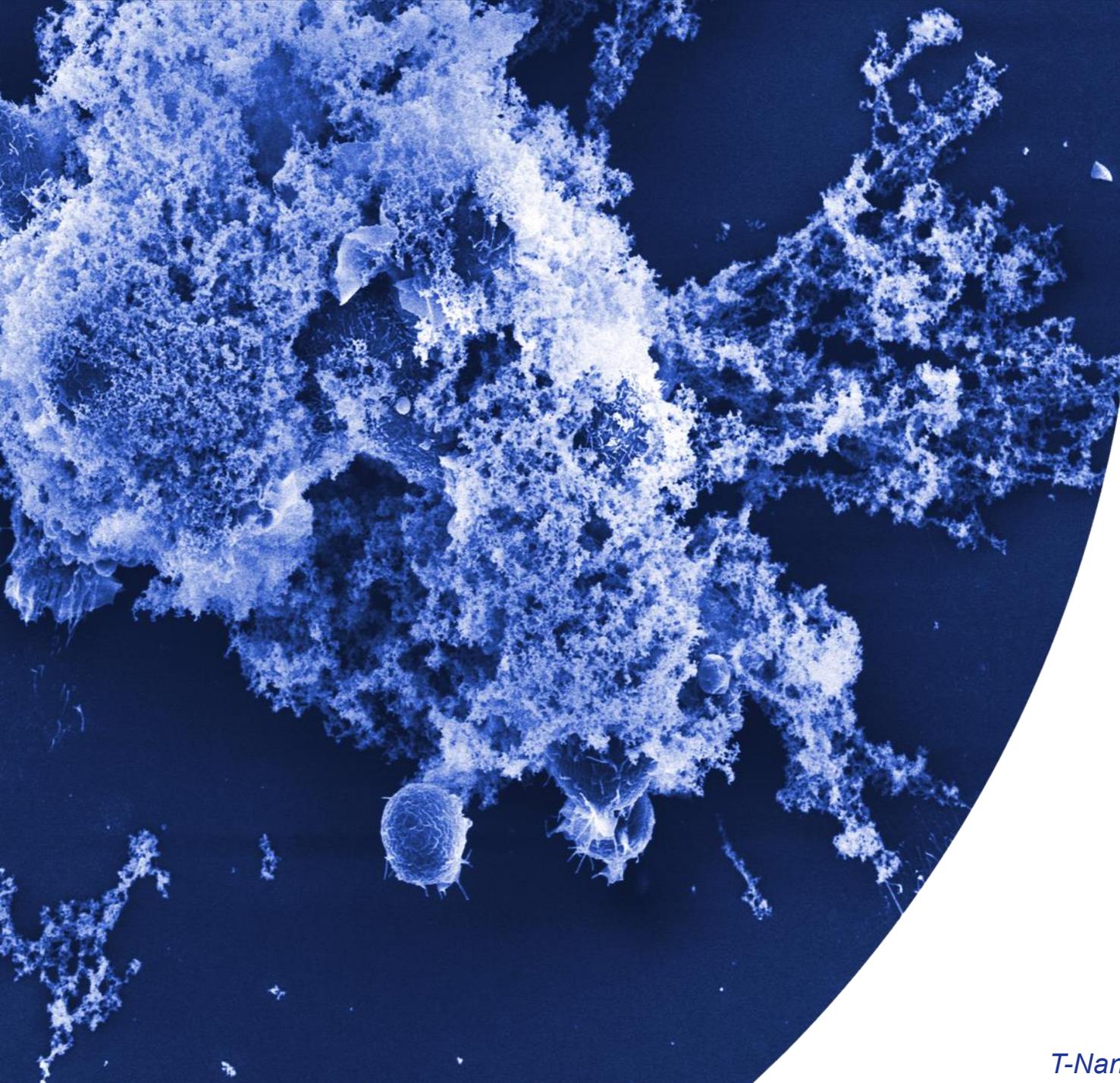
COMPANY-SPECIFIC RISKS  
INDUSTRY RISKS

# Summary: Why Invest in T-NanoBio Therapeutics?

- **Patient focus** with goal to improve patient outcomes and benefit >850K patients in the US annually and many more worldwide
- **Compelling pre-clinical data:**
  - In combination with anti-PD-1, our NIE candidate product *cured* lung and breast cancer in mice
  - Demonstrated consistent conversion of immunologically “cold” to “hot” tumors in mice
- **Differentiated profile** versus competitive programs: i) delivers potent immune stimulant resiquimod, and ii) recruits cytotoxic immune cells
- **Multiple product candidates** with platform interest by KOLs
- **Attractive clinical plan** with acceleration possibilities
- **Leadership team** of experienced scientific/clinical/business professionals

## Seeking \$30M tranced

- Efficient capital resourcing to start a Phase I/II study within 20 months of funding leading to **meaningful clinical milestones** within 3-4 years



*A transformational approach bringing peptide nanotechnology and artificial intelligence together.*