May 2024

oncomano medicine

Corporate Deck

Corporate Overview

Seasoned Management Team to Advance the Portfolio

Experienced Management Team & Prominent Investors

Executive Leadership

Brett Giroir, MD
Chairman

- Physician, scientist & innovator
- Asst. Secretary for Health at U.S. Health & Human Services
- Acting FDA Commissioner
- CEO, Altesa BioSciences

Kartik Krishnan, MD, PhD
Chief Executive Officer

- Oncologist with 20+ years' experience in clinical drug development
- Experience in leading novel oncology therapeutic programs

Melissa Paoloni, DVM
EVP and Chief Operating Officer

- 20+ years' experience in business development and strategic partnering
- Deep oncology development, portfolio management and operations expertise

Matthew Head, MBA
Chief Financial Officer

- 25+ years' experience leading financial operations in public and private companies
- Proven track record in financial strategy, capital raising and M&A

Tian Zhao, PhD
Vice President, Research & Development

Ruolan Han, PhD
Vice President, Nonclinical & Translational Medicine

Dean Hodgson
Vice President, Technical Operations

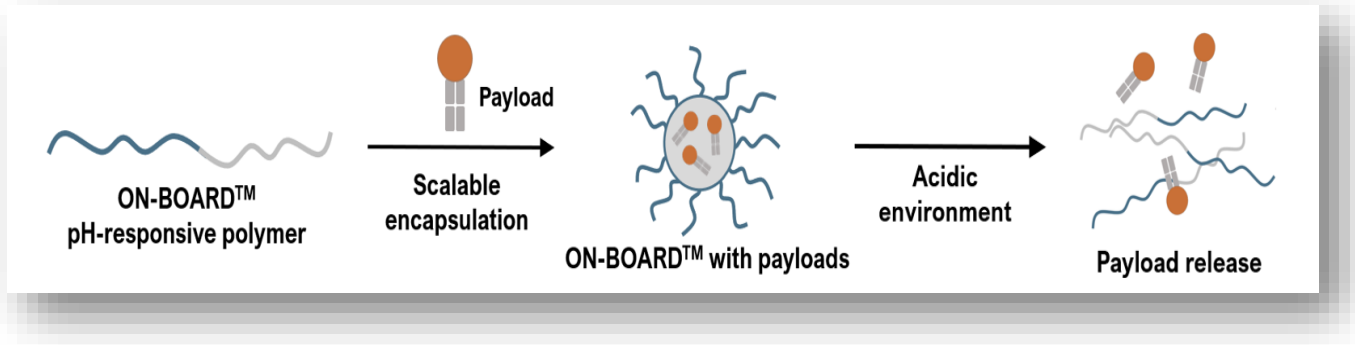
Investors & Key Stakeholders

Core Technology

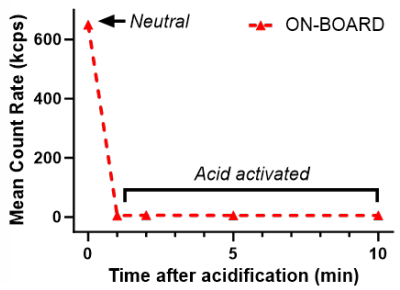
Opportunity to utilize ON-BOARD™ to Create a Pipeline

ON-BOARD™ Designed to Leverage Universal Tumor Targets and Enhance Anti-tumoral Payload Delivery

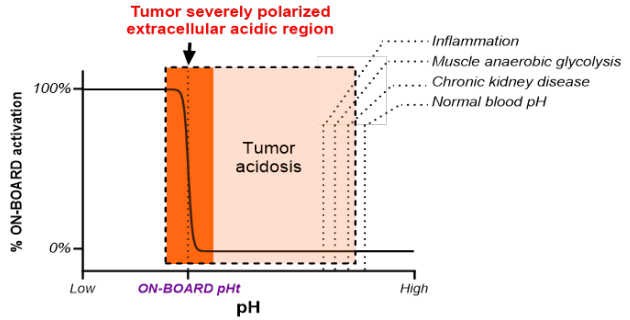
ON-BOARD™ : micelle platform designed to carry a wide variety of payloads for systemic administration to the tumor microenvironment



Ultra fast activation



High disease specificity



- **ON-BOARD™ exploits the highly acidic tumor microenvironment unique to cancer metabolism to release its payload and maximize targeted intratumorally delivery**

- **Local payload release enhances its therapeutic index by improving target potency and minimizing systemic exposure that can diminish activity or increase toxicity**

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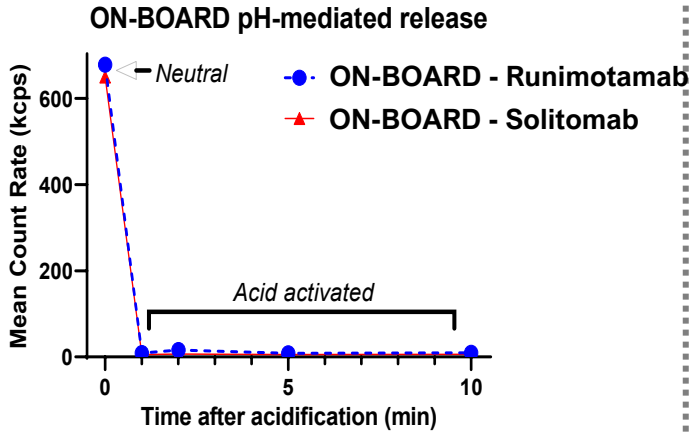
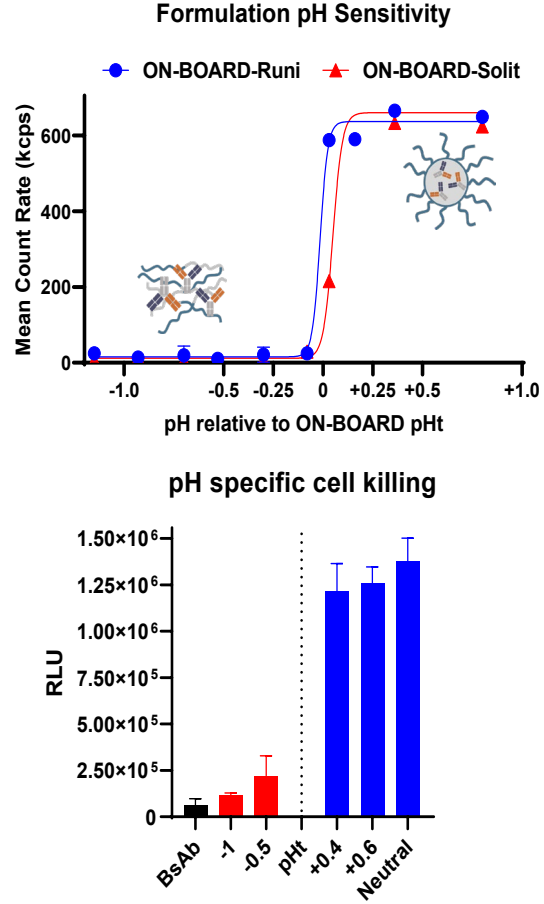
ON-BOARD™ Formulations Show Rapid Release with High Specificity Across a Variety of Payloads

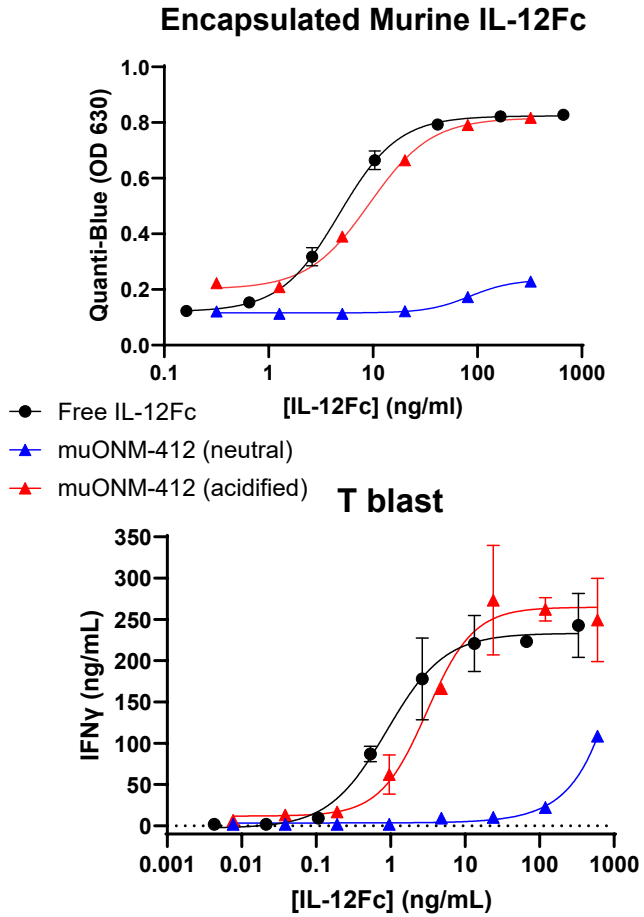
Rapid (<5min) pH-mediated payload release



Sharp pH-specific activation window



Payload release triggers biologic response



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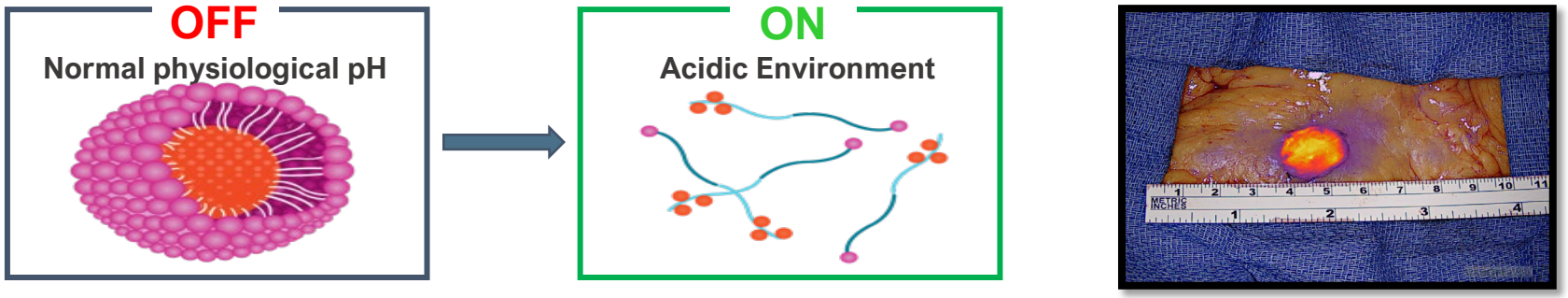
Validation of ON-BOARD™ Tumor Targeting with Pegsitacianine for Platform Therapeutic Development

Fluorophore delivered with the ON-BOARD™ polymeric-micelle system



- **Pegsitacinanine was designed as an activatable probe with binary response to pH changes to target tumor tissue within the surgical field:**
  - **Fluorescence OFF** at physiological pH (i.e., circulation, healthy tissue)
  - **Fluorescence ON** micelle dissociates in acidic environments (i.e., tumor microenvironment)
- **Phase 2 results demonstrate highly sensitive tumor localization and activation (ex. dye conjugate fluorescence selectively in tumors and not normal tissues) with minimal adverse effects**
- **ON-BOARD™'s attributes for safe and precise tumor targeting provide a platform for the future development of novel anti-cancer therapeutics**

Oncol Lett. 2018 Jul; 16(1): 123–130.; *J Drug Target.* 15(1): 1–20.

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Advancing a Robust Pipeline of Novel Oncology Assets

Program	Target	Indications	Stage of Development				Collaborators
			Discovery	Preclinical	Phase 1	Phase 2	
ONM-501	Dual-activating STING agonist	Advanced or metastatic solid tumors					REGENERON
ONM-412	IL-12Fc	Advanced or metastatic solid tumors					
Novel Targets	Non-disclosed	Cancer Indications					

Imaging Asset:

Pegsitacianine	Fluorescent nanoprobe for real-time tumor imaging	Peritoneal Metastases Multiple tumor types		FDA	*Breakthrough Therapy Designation*		Phase 3 Ready

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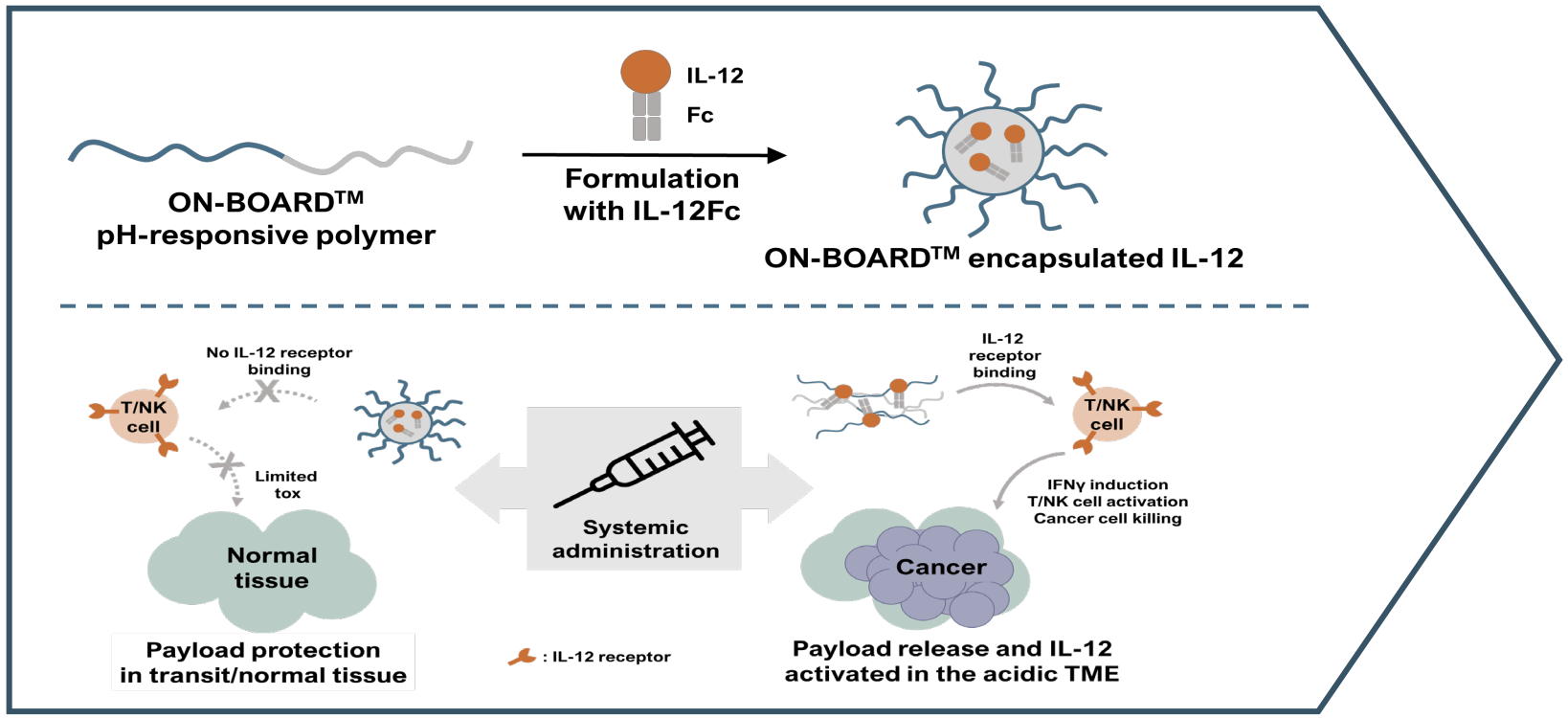
Early Pipeline Development

Utilizing **ON-BOARD™** with Novel Targets to Develop a Competitive Oncology Portfolio

Utilizing ON-BOARD™ to Develop a Competitive Oncology Portfolio

- ON-BOARD™'s ability to direct novel payloads preferentially to the tumor microenvironment provides a unique platform for oncology drug development
- Various cytotoxic or protein payloads (antibodies, small molecules, nucleic acids) can be encapsulated within its proprietary micelle technology to maximize their pharmacodynamic and clinical effect within tumors
- The platform has the capability to improve upon current clinically relevant modalities such as ADCs by more precise tumor targeting and broader applicability not limited by ligand selection
- OncoNano has successfully developed a number of early novel assets that illustrate the precision of its micelle technology and capability for payload optimization

ON-BOARD™ Encapsulated IL-12Fc Optimized for Anti-Tumor Efficacy with Clinically Relevant Safety



- Potent anti-tumor efficacy demonstrated preclinically
- Durable anti-tumor memory effect after re-challenge
- No evidence of off-target toxicity at effective doses
- Low level of systemic cytokine levels

High density loading of the cytokine by non-covalent encapsulation (10% by mass)

pH-dependent activation with a large dose range demonstrated *in vitro*

Delivered systemically with impressive evidence of low toxicity as indicated by no body weight loss, systemic cytokine levels and clinical chemistry in pre-clinical models

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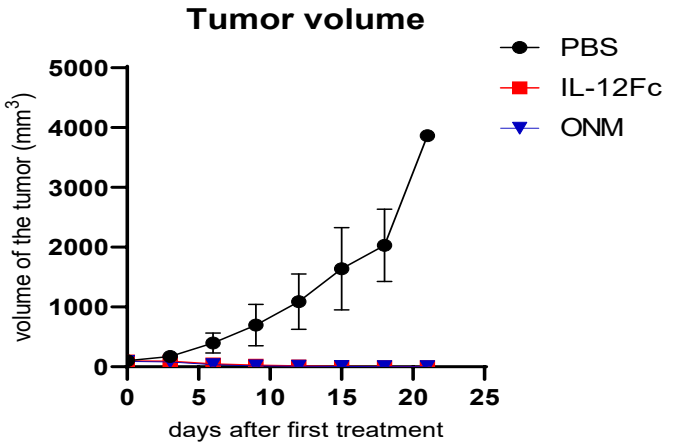
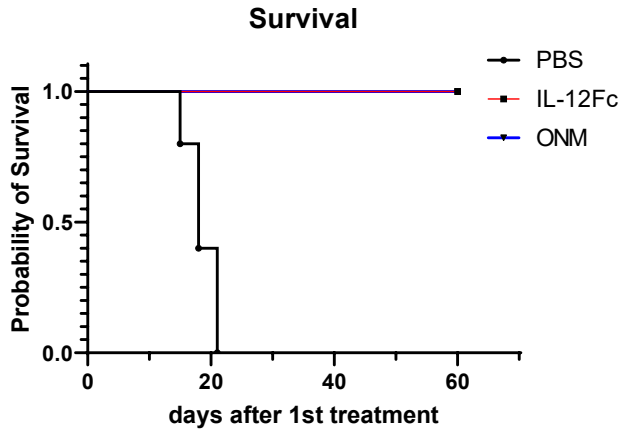
OMN-412: Potential Best in Class Delivery of IL-12Fc with Opportunity to Improve Therapeutic Index

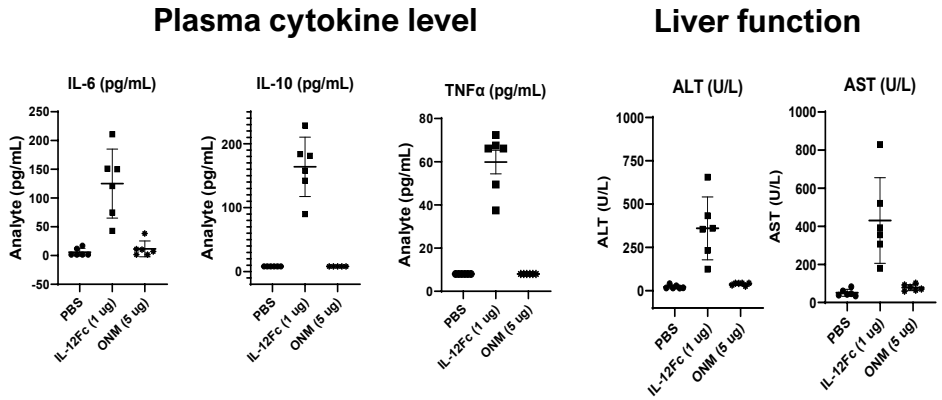
ON-BOARD™ encapsulated IL-12Fc demonstrated strong anti-tumor efficacy in mouse models with >95% tumor growth inhibition

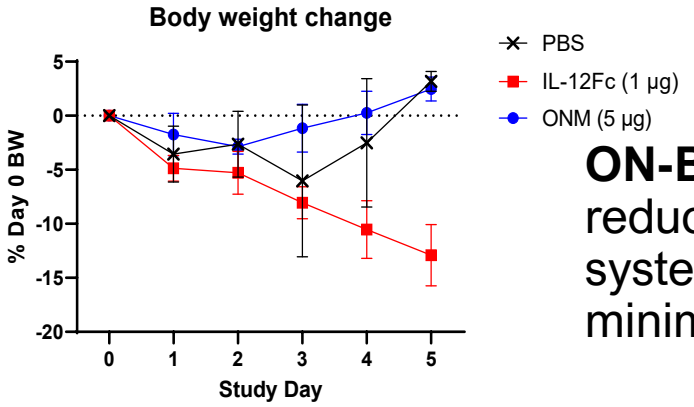
Tumor Volume





Tumor Microenvironment Pharmacodynamics





ON-BOARD™ encapsulated IL-12Fc reduces hepatotoxicity and deleterious systemic cytokine induction and exhibits minimal body weight loss *in vivo*

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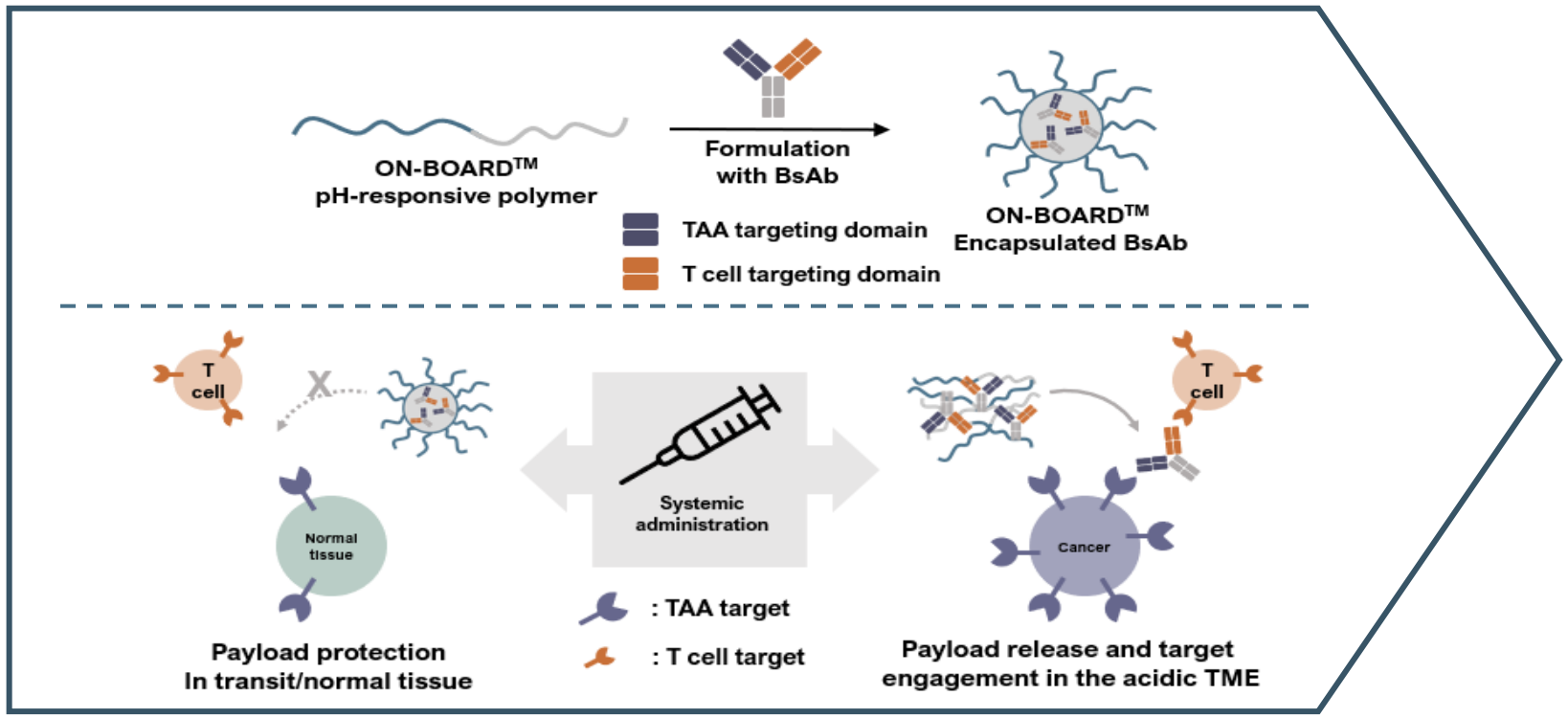
ON-BOARD™ Encapsulated Bispecific T cell Engagers Potentiate the Immune Activation of the Class



Enables conditional activation of the BsAb in vitro

Demonstrated protection and improved PK properties

Inhibits growth of poorly immunogenic tumors and increases the cellularity, activation and proliferation of CD8+ T cells in tumors

Improved tolerability as monotherapy and in combination

High density loading of the bispecific T cell engager by non-covalent encapsulation

pH-dependent activation with a large dose range demonstrated *in vitro*

Delivered systemically with impressive evidence of low toxicity and strong pharmacodynamic CD8+ T cell effect within tumors

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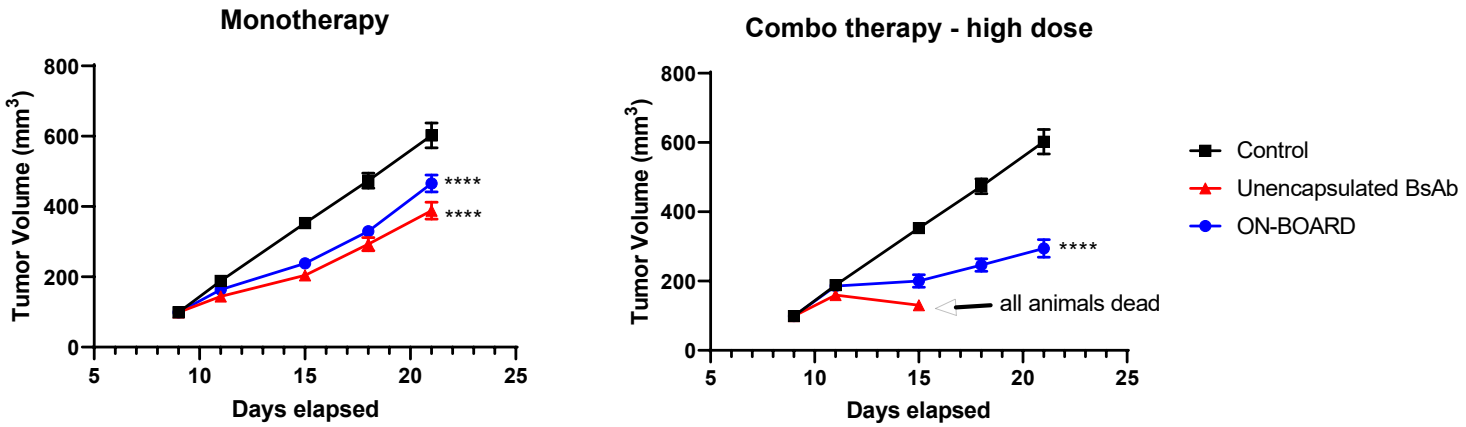
ON-BOARD™ Encapsulated Bispecific T cell Engagers Demonstrate Intratumorally Pharmacodynamic Efficiency

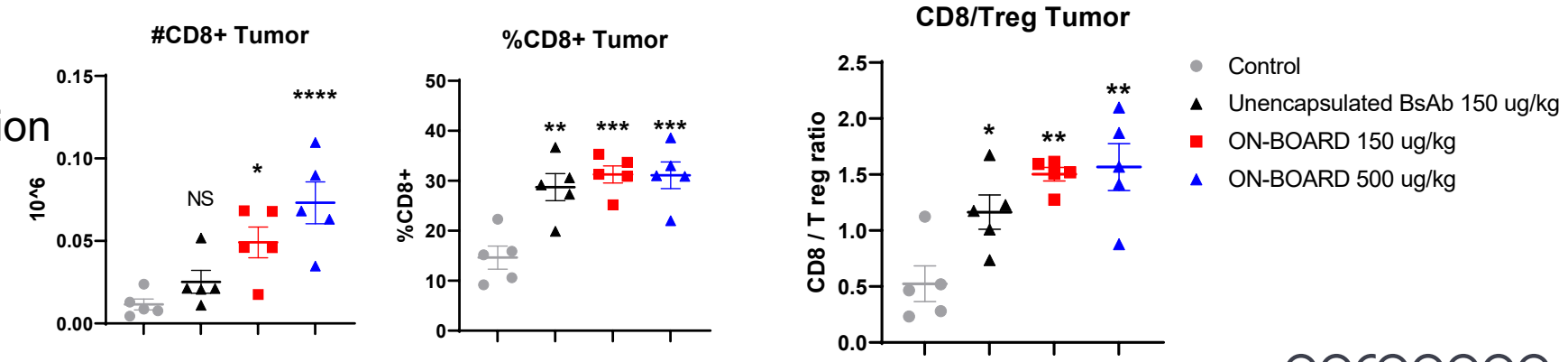
Tumor Volume



ON-BOARD™ + BsAb demonstrates comparable tumor growth inhibition to unencapsulated BsAb as a mono or combination therapy supporting its translation to the clinic

Tumor Microenvironment Pharmacodynamics

ON-BOARD™ + BsAb increases cellularity, activation, and proliferation of CD8+ T cells within immune refractory tumors turning “cold” tumors “hot”



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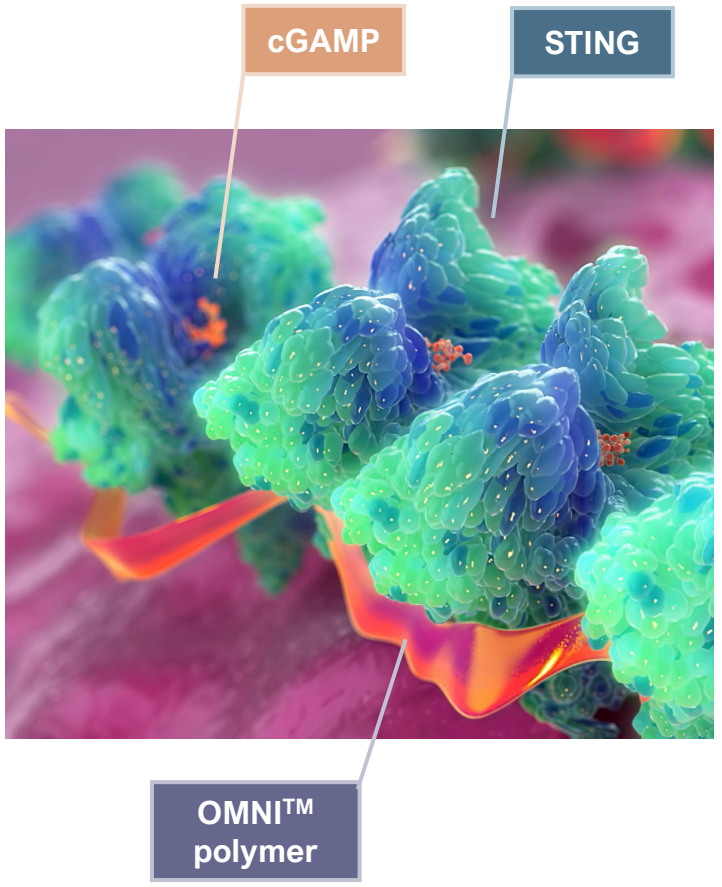
ONM-501

A dual-activating STING agonist delivered uniquely to the tumor microenvironment

ONM-501 Overcomes Limitations of Earlier STING Agonists

Limitations with STING Agonists	ONM-501 Differentiation
1 Limited cell entrance to reach cytosolic STING target	1 Efficient cytosolic delivery through endosomal disruption
2 Lack of cell selectivity – high dose causes T cell ablation	2 Selective targeting to antigen presenting cells that activates cDC1 and shift macrophages toward pro-inflammatory status
3 Short-term STING activation with tepid antitumor efficacy	3 Dual STING activation with robust antitumor efficacy in a broad set of cancers including immune ‘cold’ tumors
4 Perfusion loss from tumor site results in elevated systemic cytokines and toxicity	4 High tumor retention via nanoparticle PKBD with minimal systemic cytokine elevation



[1]Meric-Bernstam, F., et al. (2021). "Phase I Dose-Escalation Trial of MIW815 (ADU-S100), an Intratumoral STING Agonist, in Patients with Advanced/Metastatic Solid Tumors or Lymphomas." Clinical Cancer Research 28(4): 677-688.

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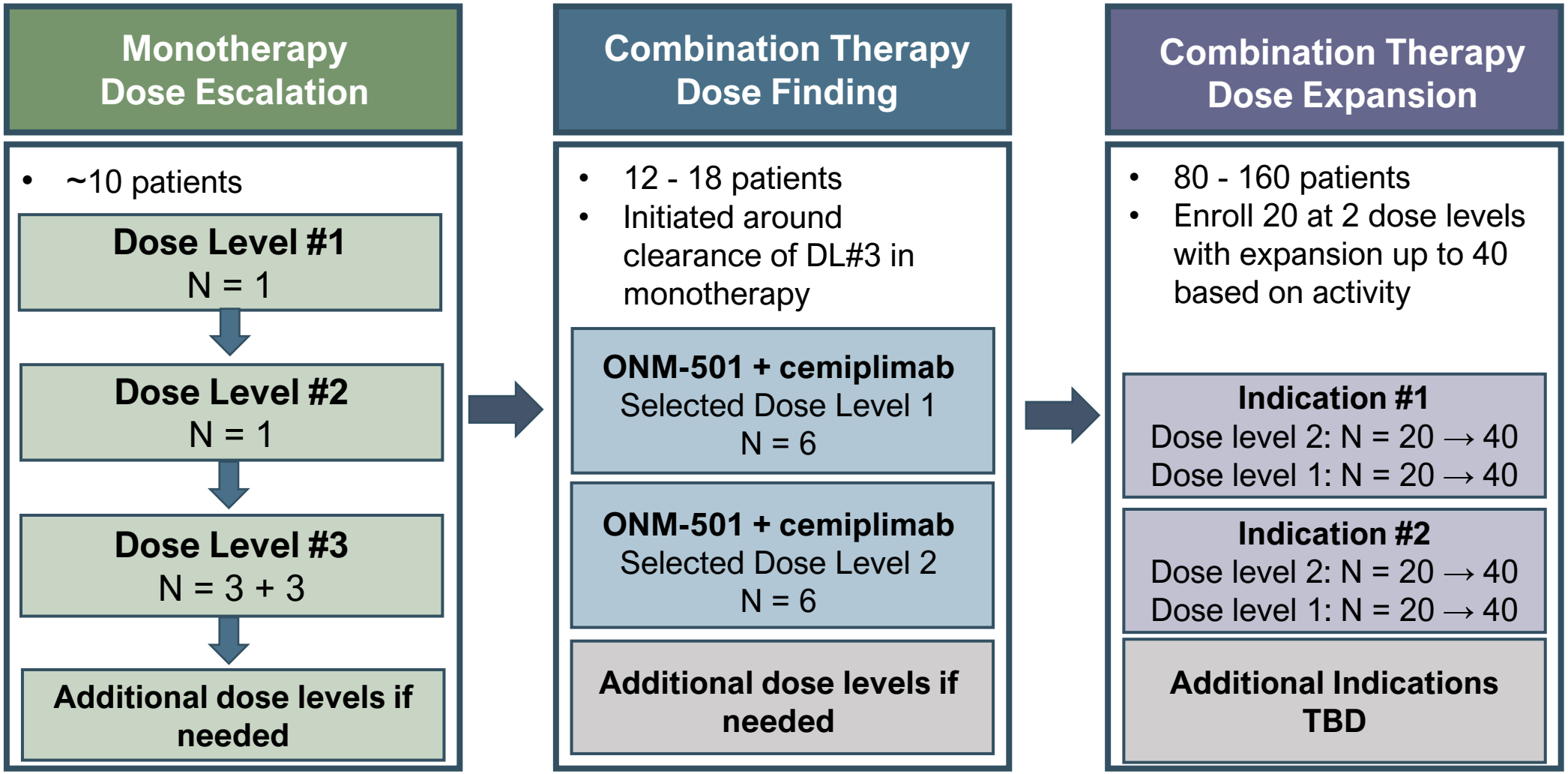
ONM-501 Phase 1 Ongoing: Monotherapy and in Combination with Libtayo® (PD-1 inhibition) in Solid Tumors



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Partnering Opportunities

Multiple opportunities to collaborate using **ON-BOARD™**

OncoNano Opportunities to Strategically Partner

- **Utilize ON-BOARD™ to encapsulate targets of interest to grow partner pipeline**
  - Expertise internally to optimize payloads and their delivery kinetics across a variety of targets
- **Assets with unique properties for potential co-development or out licensing**
  - Clinical and preclinical assets that can be accelerated with partner support
- **Acquire payloads or assets that may benefit from our targeted delivery approach**
  - Opportunity to recover value in assets with a higher risk or toxicity profile