



OncoNano Medicine Announces Positive Preclinical Data for Tumor Specific Delivery with the ON-BOARD™ Platform at AACR 2022 Annual Meeting

SOUTHLAKE, Texas – April 12, 2022 – [OncoNano Medicine, Inc.](#) today announced positive results from the company's ON-BOARD™ pH-sensitive nanoparticle platform. The data, presented at the American Association for Cancer Research (AACR) Annual Meeting 2022, demonstrate that the clinically validated ON-BOARD™ platform has the potential to be a universal tool for tumor specific activation and the efficient delivery of proteins for an improved therapeutic index.

“Our ON-BOARD micelle platform is designed to efficiently carry a broad range of payloads to the tumor microenvironment. Capable of being tuned to deliver either small molecules or biologics, the ON-BOARD platform has the potential to be a universal tool for targeted delivery of therapeutics to a range of cancers,” said Tian Zhao, Ph.D., Vice President of Research & Development for OncoNano Medicine, Inc. “We are pleased with the positive data from our research efforts to encapsulate therapeutic antibodies with our ON-BOARD delivery technology and look forward to the further development of protein payloads with an improved therapeutic index.”

A variety of biosimilar monoclonal antibodies including those of atezolizumab, cetuximab, pembrolizumab, trastuzumab and ipilimumab were encapsulated by the ON-BOARD™ platform. The findings indicate that ON-BOARD™ demonstrated:

- Encapsulation of antibodies without additional modification of the original antibody
- Encapsulation efficiency ranging from 50-100%
- Formulations characterized as uniformly distributed particles < 100nm in size with good stability
- Over a 100-fold activation window between the acid-activated and intact formulations based on *in vitro* assessment by cell-based reporter assays
- pH-dependent activation that was further confirmed by affinity and binding assay
- Tumor specific accumulation that was demonstrated by a biodistribution study

Presentation Overview

TITLE: Encapsulating therapeutic antibodies for tumor specific activation and delivery using a clinically validated pH-sensitive nanoparticle platform

PRESENTER: Jason Miller, Ph.D., Associate Director, Research Pipeline Development, OncoNano Medicine

About OncoNano Medicine

OncoNano Medicine is developing a new class of products that utilize principles of molecular cooperativity in their design to exploit pH as a biomarker to diagnose and treat cancer with high specificity. Our product candidates and interventions are designed to help patients across the continuum of cancer care and include solid tumor therapeutics, agents for real-time image-guided surgery and a platform of immune-oncology therapeutics that activate and guide the body's immune system to target cancer.

OncoNano's lead development candidate is pegsitacianine, a novel fluorescent nanoprobe, that is currently under study in Phase 2 clinical trials as a real-time surgical imaging agent for use in multiple cancer surgeries. ONM-501, OncoNano's second development program, is a next generation STING (**ST**imulator of **IN**terferon **G**enes) agonist that is advancing towards a first in human trial in the first half of 2023. Pegsitacianine and ONM-501 have been supported by grants received from the Cancer Prevention Research Institute of Texas. Learn more at www.OncoNano.com.

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