



Born from **Hope**.
Built to Defeat Cancer

Incorporated in 2021
HQ: JLABS, Houston, TX |



Non-confidential overview

Investment Highlight

1

Breakthrough RNAi for Solid Tumours

Our lead candidate NM-198 has showcased efficacy in silencing >30 cancer drivers and penetrate drug-resistant solid tumors, with no toxicity observed in preclinical models.

2

Clinically Potent, Commercially Scalable

90% tumor suppression and 80% fewer metastases in preclinical models, with a shelf-stable, single-dose IV formulation requiring no cold chain and costing 1,000× less to produce.

3

Capital-Light Path to IND

Pre-clinical package largely complete; US \$3 M bridge funds primate study, IND-enabling tox, and CMC - IND filing in less than 12 months.

4

Pre-Inflection Entry Window

Adaptive multi-indication basket trial (ovarian, colon, pancreatic) begins post-IND; one success unlocks platform value, projecting 3–5× uplift by read-out.

5

Durable Moat & Platform Upside

5 patents + exclusive Baylor license protect drug & delivery through 2045; same tech licensable to non-oncology RNA therapeutics.

The Problem: Solid-Tumour Cancer Remains Poorly Served

1

Chemo-resistant solid tumours stay fatal

Pancreatic, ovarian and colorectal cancers cause > 1 million deaths/year; ~90 % occur after standard chemotherapy stops working.

2

Current modalities rarely give durable control

Small molecules, antibodies and CAR-T deliver < 20 % lasting responses due to dose-limiting toxicity, poor penetration or rapid resistance undermine benefit.

3

RNAi is uniquely suited, but still blocked

RNAi can silence many tumour genes, including “undruggables”, and is reversible and programmable; yet liver-biased delivery and single-gene designs have stalled success.

*Solving RNAi's
barriers opens
a \$35Bn gap*

Our Solution: Redefining Cancer Treatment Through Integrated RNAi and Drug Delivery Platforms

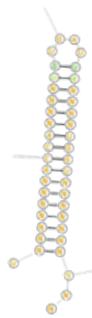
Precision
design

+

Innovative
delivery



Combined into a
novel therapeutic



1 Novel RNA Design

Our **NoPass** platform for designing RNA sequences leads to precision therapy with more efficacy and fewer side effects

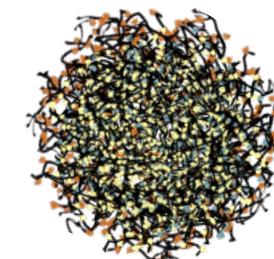
Hits multiple drivers of cancer growth and drug resistance with fewer side effects.



2 Breakthrough Delivery

Our breakthrough biocompatible delivery **Nano-In** system enables safe, effective nucleic acid drug transport

Reaches hard-to-treat cancers



3 NM-198

Our therapeutic innovations converge into a breakthrough therapeutic **NM-198** to combat drug-resistant cancers

>90% tumor reduction shown in preclinical models of ovarian, colon, and pancreatic cancer.

Robust IP portfolio with patented proprietary technologies and exclusive worldwide licenses from Baylor College of Medicine

Securing Exclusivity Through 2045+

1

NoPass reinvents RNAi



Start with a biomarker-led profile for a tumor or disease state

or

An existing siRNA or miRNA



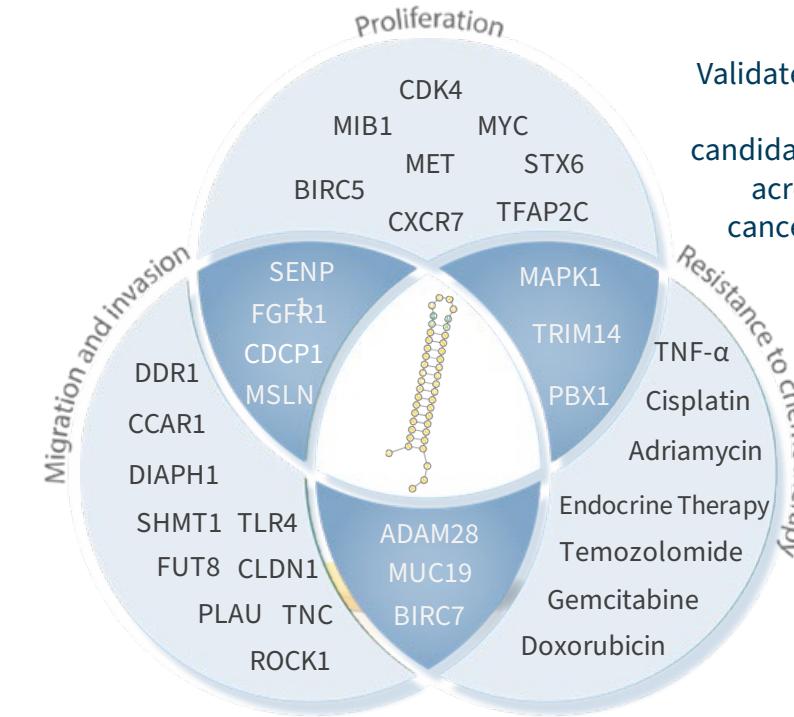
Apply NoPass Computer-aided design for RNAi with unique characteristics:

- Molecules engineered to enter special processing pathway for **increased efficiency and improved safety**
- Multi-factor targeting by design
- **Increased stability and enhanced targeting**
- **Reduced off-target effects**
- **No need for chemical modifications**



The result is a specialized, next-generation RNAi therapeutic capable of multi-pathway targeting

- Our lead candidate can **target dozens of cancer-driving factors simultaneously**.
- Ideal for attacking heterogeneous, complex tumors from multiple angles
- Tunable **precision regulation**
- Powerful algorithm can be used for any RNAi-induced silencing applications, even beyond oncology (**licensing potential**)



Validated targets of NoPass lead candidate, **NM-198**, across multiple cancer hallmarks

Nano-in delivers a breakthrough for nucleic acid therapeutics

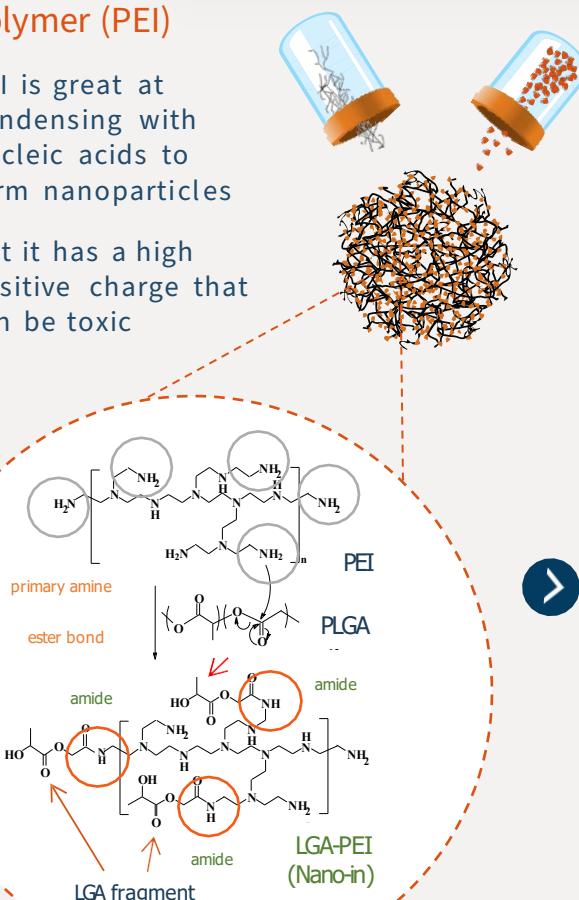


Made by combining two widely used polymers

Polymer (PEI)

PEI is great at condensing with nucleic acids to form nanoparticles

But it has a high positive charge that can be toxic



Polymer (PLGA)

PLGA is non-toxic, and FDA-approved, but cannot efficiently deliver nucleic acids alone.

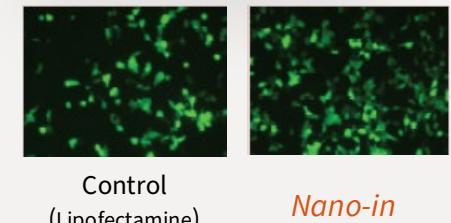


Nano-in is a unique and powerful delivery system

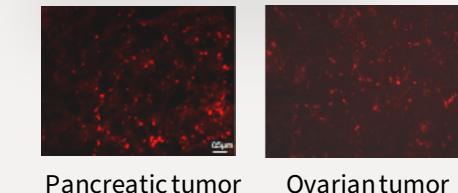
- **Broad Applicability**—deliver any nucleic acid.
- **Low-cost, scalable** technology for delivering RNA/DNA across various therapeutic areas.
- **Proven success in delivering to key organs and tumors**, with the ability to modify for precise receptor targeting.
- **Efficient and Safe**
- **Practical Storage** and transport
- **Stable at room temperature** for at least 30 weeks

Drug delivery that is **scalable, & safe**

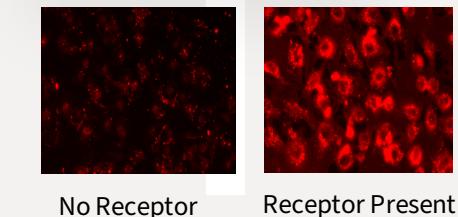
In vitro delivery



In vivo delivery

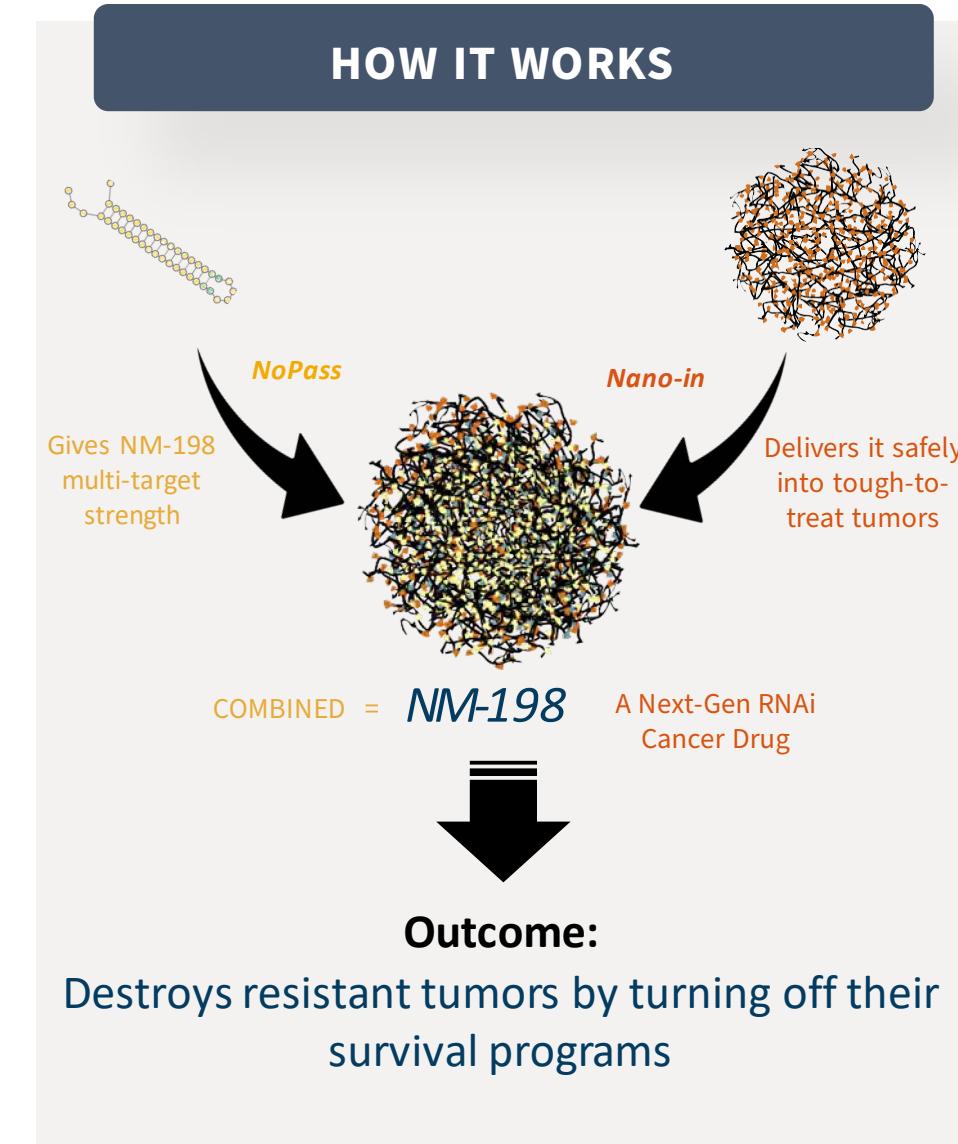


Targeted delivery



Lead Candidate – NM198: Designed for **precision**. Built for **impact**.

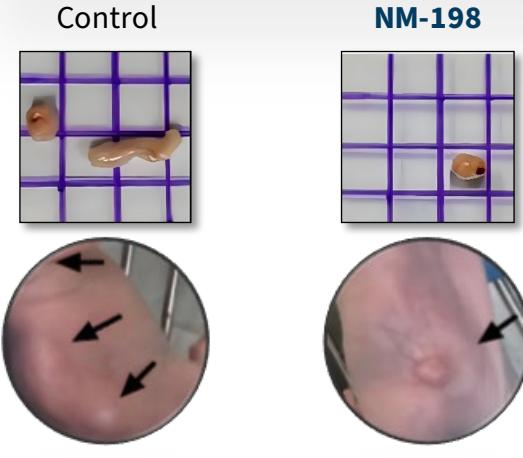
- ✓ Combines smart design (like siRNA) with broader power (like miRNA)
- ✓ One drug hits many cancer-driving pathways
- ✓ Shuts down **32+ cancer genes** that fuel tumor growth, spread, and drug resistance
- ✓ Avoids immune flare-ups → **Lower risk of side effects**
- ✓ Accumulates in tumors leaving healthy cells alone while silencing targets effectively
- ✓ Shows promise in colon, ovarian, pancreatic cancer- and more
- ✓ Uses a **low-cost delivery system** that's over **1000x cheaper** than competitors
- ✓ Uses a single formulation - **no re-mixing, no cold storage, or no retooling** required



Lead Candidate – NM198 Efficacy

NoPass Design and Nano-in delivery for a powerful **MULTI-TARGET** impact across tumor types

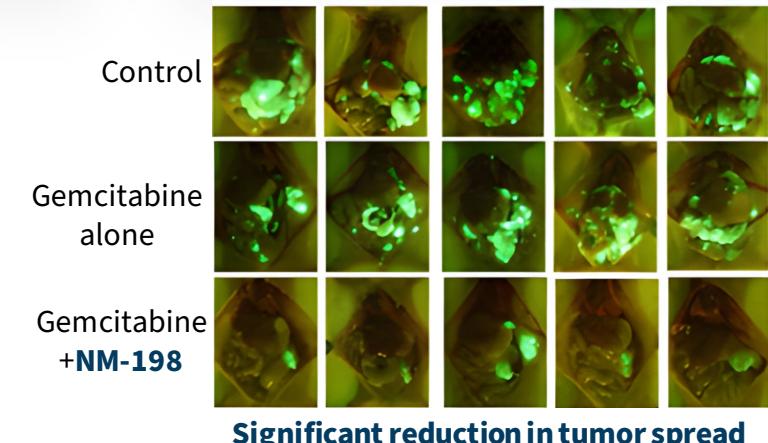
Ovarian



Colon



Pancreatic



~ 80% reduction in tumor size in just 1 week
given as **monotherapy**

~ 95% reduction in tumor size in just 2 weeks
given as **monotherapy**

~ 90% reduction in tumor size in 1 month
when given **in combination**

Lead Candidate – NM198 Safety

Engineered for safety as a primary outcome

No toxic effects



No alterations to organ function in rodents

No abnormal liver/kidney function, or blood chemistries after 4 months of dosing at 15x effective dose.

No immune activation



Does not activate cytokines or Toll-like receptors.

External CRO validation.

Confirmed target engagement



Transriptomic and proteomic target engagement profile with precision certainty.

Favorable safety profile extends to both NM-198 therapeutic and platform technologies.

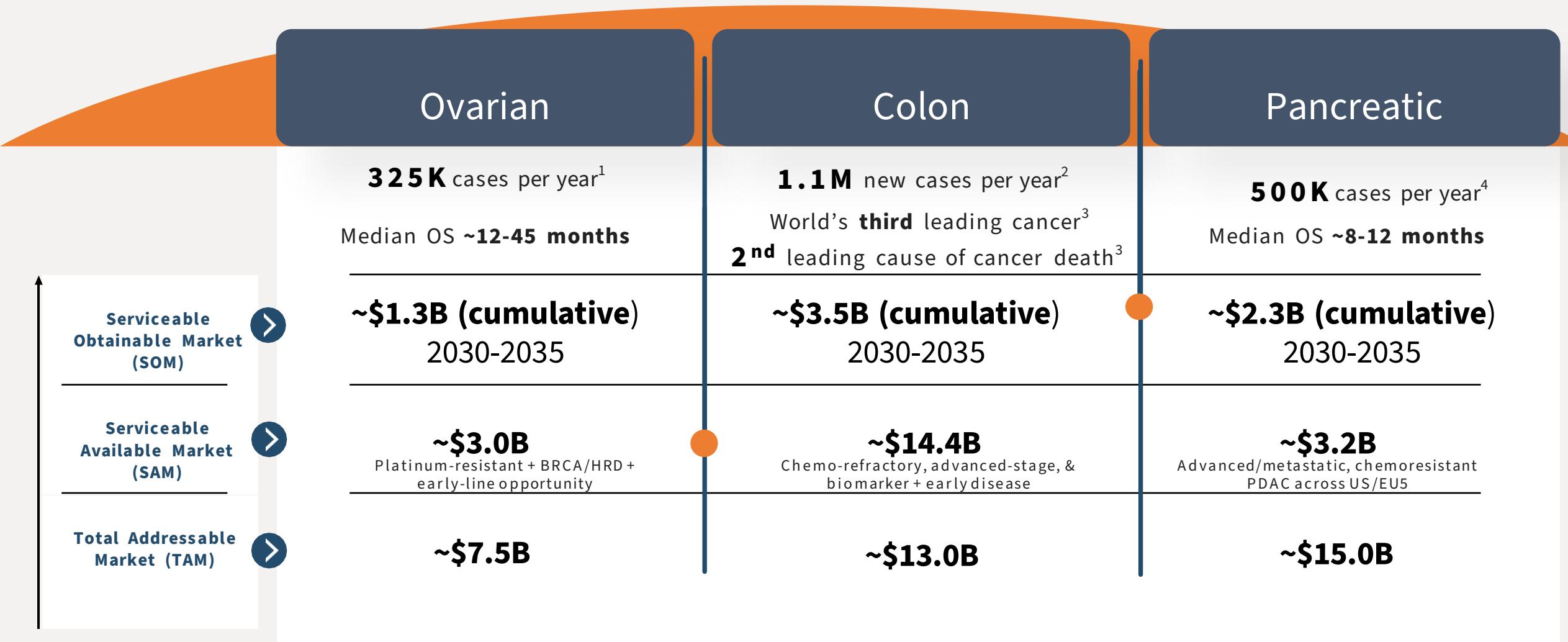
Upcoming Experiments



Meticulously designed clinical trial following completion of IND-enabling studies

Market Opportunity

A \$35B+ global opportunity in 3 indications that currently lack effective therapeutic options



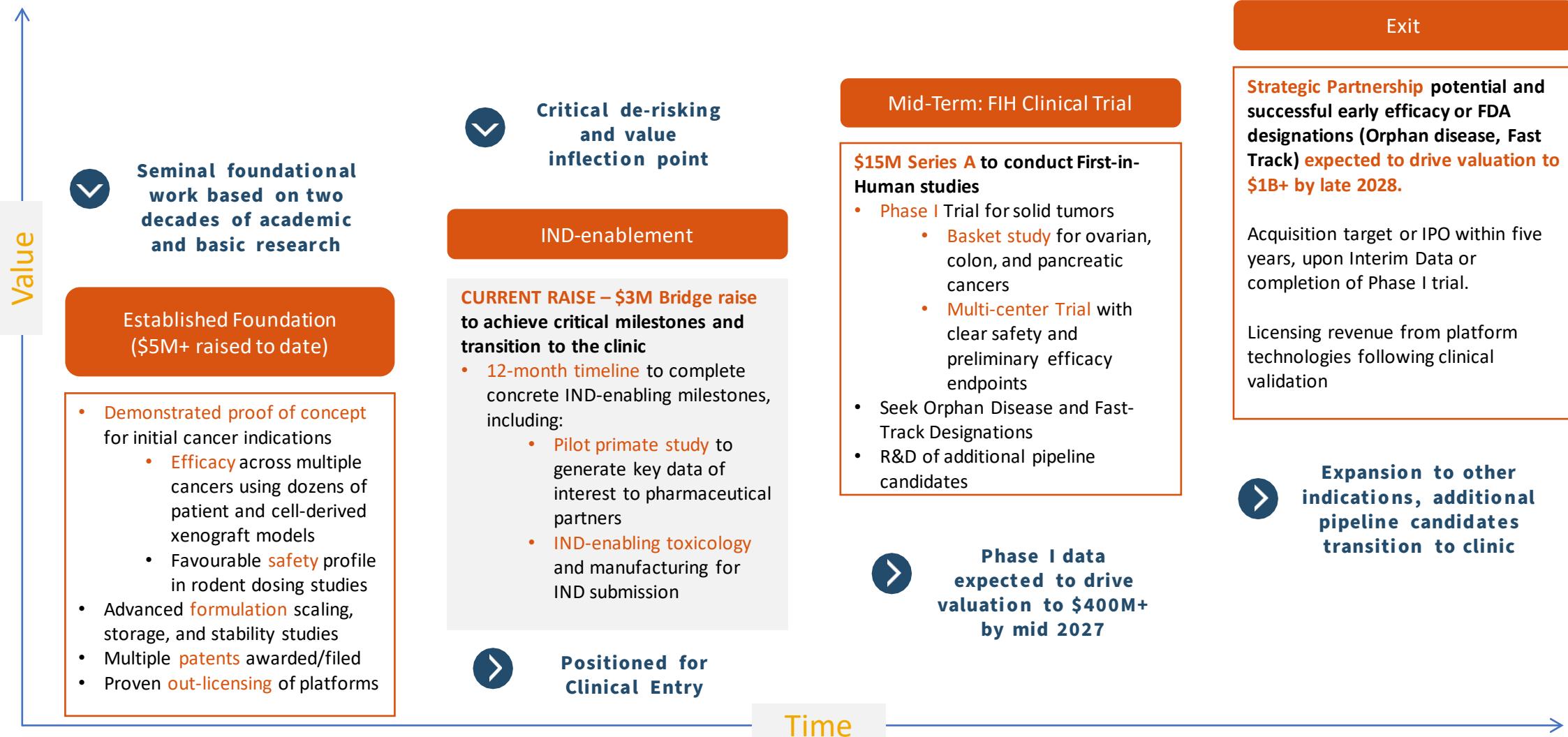
Competitive Landscape

Several RNAi approaches have progressed in the past decade, yet success has been incremental.

Drug Candidate	Modality & Delivery	Indication(s)	Phase	Sponsor / Type	Early Efficacy Signals	Multi-target	Anti-resistance	Tunable Platform	Sponsor Notes
NM-198 (Speratum)	RNAi, polymer (non-LNP), IV	Pancreatic, ovarian, colorectal Expandable to other solid tumors	Preclinical	Speratum / Biotech	Strong tumor regression in vivo, multi-target knockdown	✓	✓	✓	Multi-target design; high efficacy across tumor types; works as monotherapy; synergy with existing drugs; promising safety profile; targets metastases.
siG12D-LODER	siRNA, polymer implant	Pancreatic (KRAS G12D)	Phase II (US), expansion to Brazil planned	Silenseed / Biotech	ORR 56% vs 20%, OS +9.3 mo, CA19-9↓ in 70%	✗	✗	✗	Local release platform targeting mutant KRAS; requires surgical implantation
Custirsen (OGX-011)	ASO	Prostate, ovarian, colorectal	Phase II/III (US)	OncoGenex / Teva	No OS benefit in prostate; mixed results	✗	✗	✗	Targeting survival proteins; lacked overall survival benefit; high toxicity when used in combination
CALAA-01	siRNA, cyclodextrin NP	GI, solid tumors	Phase I (US)	Calando / Biotech	First-in-human PK/PD, RRM2 target knockdown	✗	✗	✗	Early siRNA NP development; trial halted due to toxicity issues related to delivery
Atu027	siRNA, LNP	Solid tumors	Phase I (US)	Silence Therapeutics / Biotech	Safe, PKN3 knockdown confirmed	✗	✗	✗	Focus on angiogenesis; encouraging early results demonstrating potential of RNAi
TKM-080301	siRNA, LNP	Various cancers	Phase I (US)	Arbutus (formerly Tekmira) / Biotech	PLK1 inhibition, early tolerability	✗	✗	✗	LNP systemic RNAi delivery. No effect as a monotherapy.

Milestones

From early validation to \$1B+ opportunity — with clear, trackable ROI milestones



Team and Advisors

Scientific innovators supported by industry veterans



**Christian
Marin-Müller, MS, PhD**

Founder, Director & CEO | Co-Inventor

- 15+ years in RNAi & drug delivery
- \$5M+ raised
- Multiple awarded and pending patents
- 3 dozen international science & innovation awards



**Fadi
Abdel, MD**

Chief Development & Operations Officer

- 25+ years of R&D and clinical trial operations in Oncology and Neuroscience
- Proven track record of 50+ successful IND and NDA submissions, successful IPO



**Osvaldo
Vega-Martínez, MS**

Founder, CSO | Co-Inventor

- 10+ years of leading multidisciplinary R&D teams in RNAi & drug delivery
- Multiple pending patents



**Allan
Boruchowicz, BS**

Founder, Director & Interim CFO

- 15+ years in Private Equity
- \$20M+ raised for various tech startups in Latin America

Board of Directors



Matthias Schroff, PhD
CEO Inceptor Bio
Expertise: 20+ years in RNA Therapeutics, multiple IND and NDA submissions in oncology and genetic disorders



Kyle Jenne, MBA
CCO Ionis Pharmaceuticals
Expertise: 25+ years in RNA therapeutics as executive and director



Peter Heeckt, MD, PhD
Former CMO, Bioventus, Smith+Nephew
Expertise: 25+ years MedTech/biotech & surgery in pancreatic cancer



Andy Weymann, MD, MBA
CEO Gelmetix
Expertise: 25+ years MedTech/biotech, multiple INDs, successful Phase I & II

Scientific Advisory Board



Changyi Chen, MD, PhD
Co-inventor of Speratum's technologies
Director, Molecular Surgeon Center Baylor College of Medicine
200+ publications, 15+ patents
National Society of Inventors



Qizhi Yao, MD, PhD
Co-inventor of Speratum's technologies
Professor, Virology & Microbiology Baylor College of Medicine
150+ publications, multiple patents



Jian-Ming Lu, MS, PhD
Co-inventor of Speratum's technologies
Assistant Professor of Surgery Baylor College of Medicine
30+ publications, multiple patents



Wen Wee Ma, MBBS
Director, Novel Cancer Therapeutics Institute, Cleveland Clinic
Principal investigator for a dozen first-in-human trials in pancreatic cancer

Accelerators and Partners



carao
ventures



eretz.bio
Incubadora de Startups



MC | MASSCHALLENGE



Major Inflection Milestones

Next 12 months

\$3M Raise to Achieve Critical Value-Driving Milestones

Positioning NM-198 for IND Submission and Clinical Entry



Pilot Non-human Primate Study (feasibility and safety signals)

Conduct non-GLP primate studies to evaluate delivery, biodistribution, and initial safety profile.

A major de-risking step for future clinical safety packages and a significant valuation inflection point.



Full GLP Toxicology and IND-Enabling Safety Pharmacology

Execute comprehensive GLP toxicology studies required for IND filing.

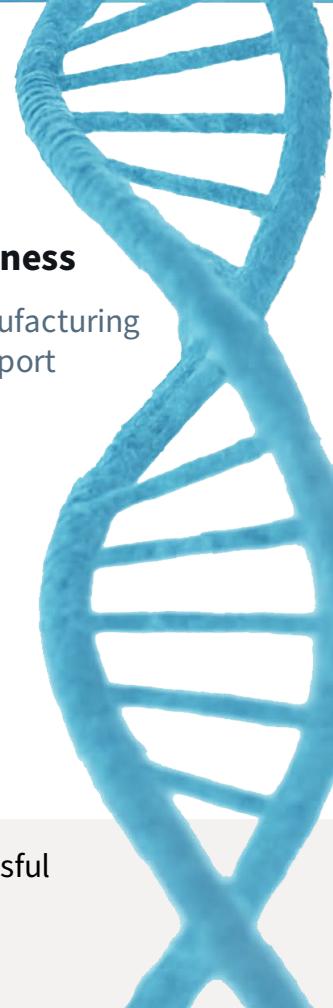
Significant inflection point enabling completion of the regulatory package for first-in-human trials.



CMC Scale-up & Manufacturing Readiness

Advanced Chemistry, Manufacturing and Controls (CMC) to support production scale-up.

Critical process for regulatory approval and platform scalability.



These milestones will position us for a \$15M Series A Raise

To support First-in-Human Studies

Why invest now?



Based on the trajectory of similar platforms, **completion of pre-clinical studies expected to drive valuation up 3-5x.**



Interim Phase 1 Data is expected **to drive valuation to \$400M+ by mid 2027.**



Strategic Partnership potential and successful early efficacy or FDA designations (Orphan disease, Fast Track) expected to **drive valuation to \$1B+ by late 2028.**



Patents



Publications



Delivering **health** through innovative cancer therapeutics



Contact



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In-house animal work was conducted through our AAALAC accredited program

Website

www.speratum.com

