Speratum Biopharma Inc.

Delivering **hope**
through innovative cancer therapeutics

Non-confidential overview

Meet Our Leaders in RNA Innovation

Speratum Biopharma Inc.

Christian Marin-Müller, MS, PhD

Founder & CEO I Co-Inventor

- Baylor College of Medicine
- MS Entrepreneurship, Case Western
- **15+ years RNAi & drug delivery**
- Serial biotech entrepreneur

Osvaldo Vega-Martínez, MS

Chief Scientific Officer I Co-Inventor

- University of Costa Rica
- **10+ years Translational RNAi**
- Expertise: Genomics & Nanotechnology

Fadi Abdel, MD

Chief Development & Operations Officer

- Vanderbilt University School of Medicine
- **25+ years in R&D & Oncology Focus**
- Expertise: 50+ INDs, 15+ NDA approvals + commercialization Lead

Allan Boruchowicz, BS

Founder & Interim CFO

- Babson College
- **15+ years in Private Equity**
- Managing Director, Carao Ventures
- Expertise: IPO, M&A

Supported by biotech veterans with multiple IND and NDA approvals

Board of Directors

Matthias Schroff, PhD

CEO Inceptor Bio

Expertise: RNA Therapeutics, I/O veteran

Kyle Jenne, MBA

CCO Ionis Pharmaceuticals
Former CEO, Elise Biotechnology

Expertise: 25+ years in RNA therapeutics

Peter Heeckt, MD, PhD

Former CMO, Bioventus, Smith+Nephew
Adjunct Professor of Surgery, Ulm University

Expertise: 25+ years MedTech/biotech & leadership in pancreatic cancer

Andy Weymann, MD, MBA

CEO Gelmetix
Former CMO of Smith+Nephew

Expertise: 25+ years MedTech/biotech

Scientific Advisory Board

Changyi Chen, MD, PhD

Co-inventor of Speratum's RNAi Platform

Director, Molecular Surgeon Center
Baylor College of Medicine

Qizhi Yao, MD, PhD

Co-inventor of Speratum's technologies Professor, Virology & Microbiology Baylor College of Medicine

Jian-Ming Lu, MS, PhD

Co-inventor of Speratum's technologies

Assistant Professor of Surgery
Baylor College of Medicine

Wen Wee Ma, MBBS

Director, Novel Cancer Therapeutics Institute, Cleveland Clinic

Principal investigator for first-in-human trials in pancreatic cancer

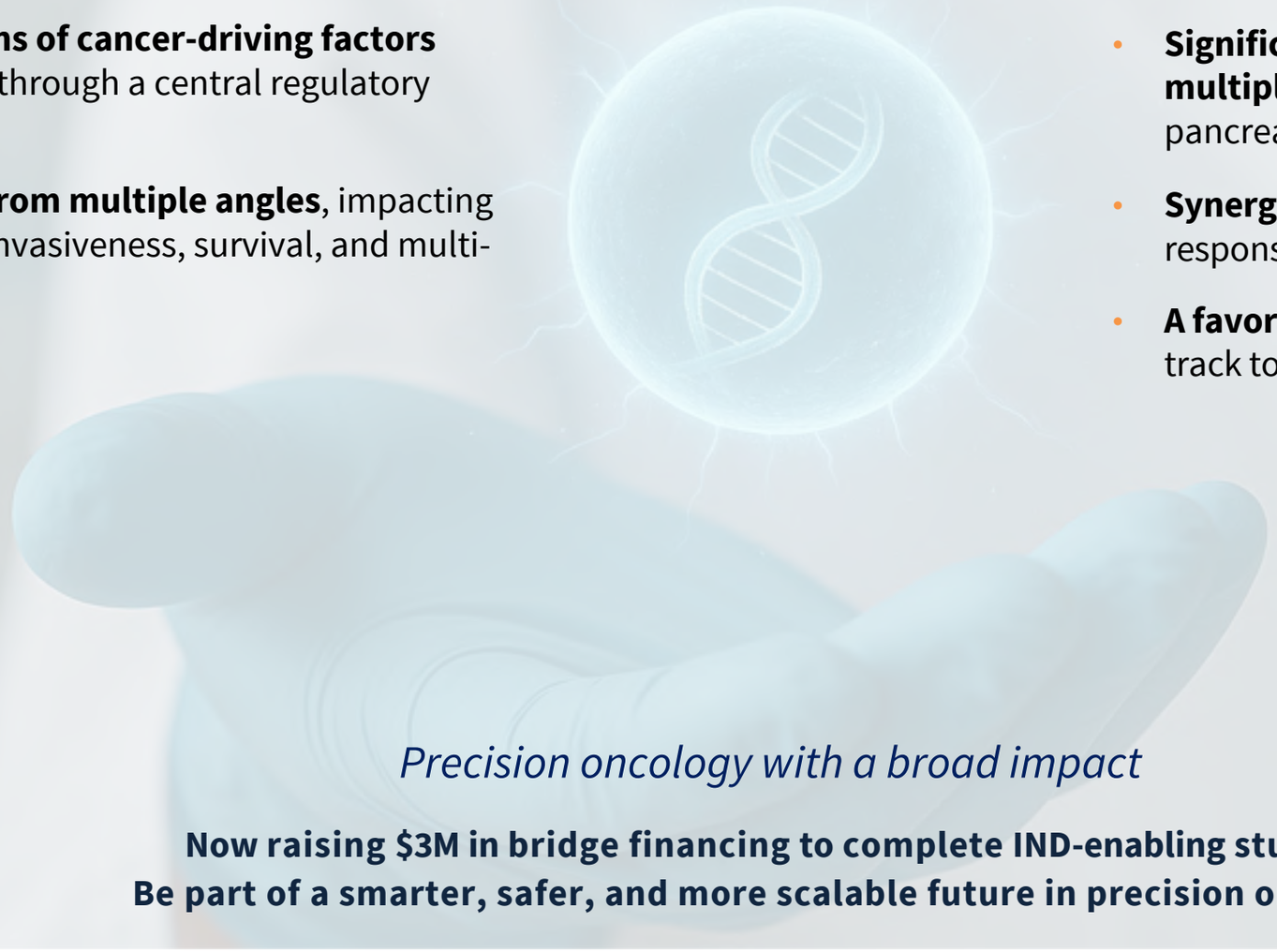
Headquartered at Johnson & Johnson INNOVATION — JLABS — in Houston

Redefining the future of cancer treatment

Next generation RNA interference for drug-resistant cancers

Speratum's technologies can:

- **Modulate dozens of cancer-driving factors** simultaneously through a central regulatory target
- **Attack cancer from multiple angles**, impacting tumor growth, invasiveness, survival, and multi-drug resistance



Preclinical studies demonstrate:

- **Significant tumor growth inhibition across multiple drug-resistant cancers, i**ncluding pancreatic tumors.
- **Synergy with existing drugs** to enhance tumor responses.
- **A favorable safety profile** that supports a fast track to clinical trials.

Precision oncology with a broad impact

Now raising $3M in bridge financing to complete IND-enabling studies.
Be part of a smarter, safer, and more scalable future in precision oncology.

THE PROBLEM

Pancreatic cancer is a devastating disease with no effective treatments

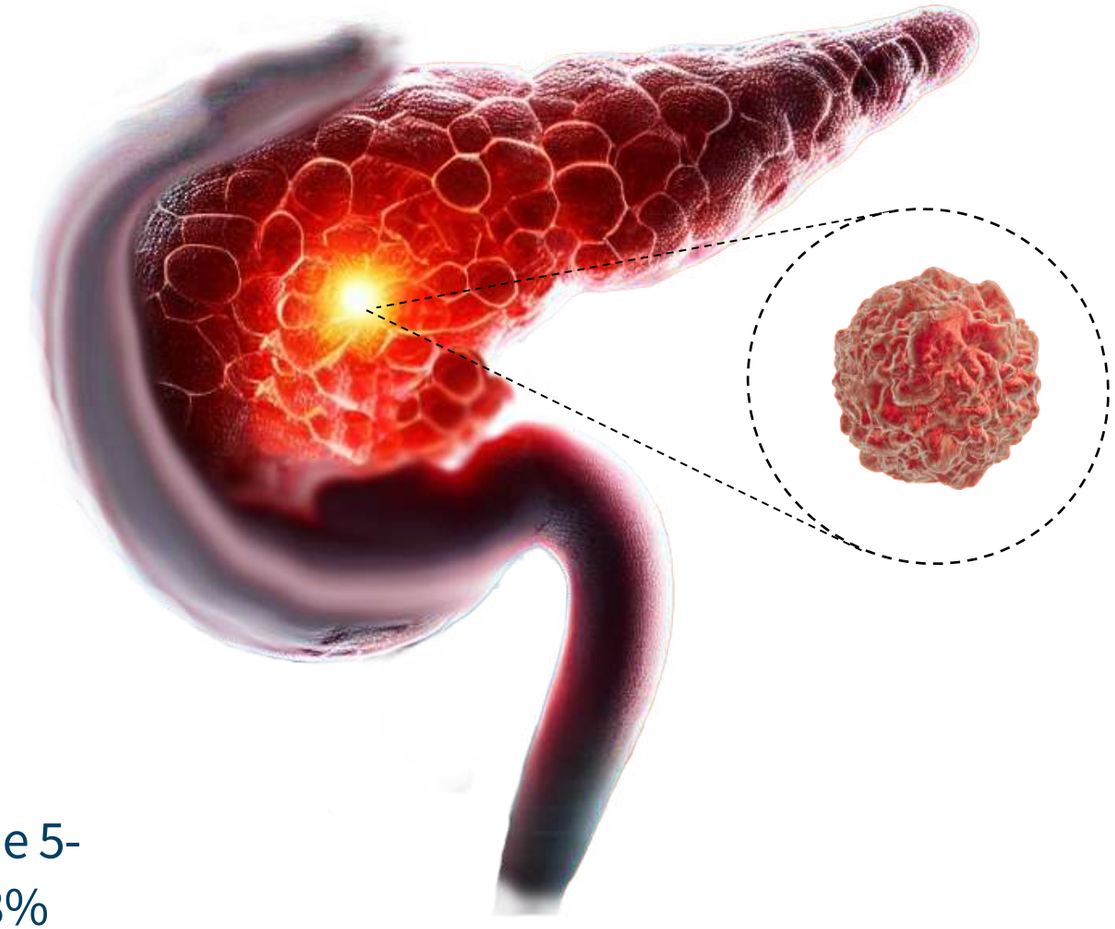
Highly aggressive

Heterogeneous tumors driven by many different factors

Protected by tumor stroma

Quickly become drug resistant

For patients diagnosed late, the 5-year survival rate is close to 3%



OUR SOLUTION

We have engineered a first of its-kind RNA therapeutic

That can target dozens of factors simultaneously

And deliver it to tumors using our breakthrough drug delivery system

That can penetrate the protective stroma

For a new way to treat advanced, drug-resistant pancreatic cancer

and other aggressive solid tumors

RNA interference (RNAi)

Gene silencing technology for hard-to-treat diseases

The Potential of RNAi in oncology

1. **Silences** harmful genes at the source by blocking protein production
2. Uses **small RNAs** to destroy messenger RNA (mRNA) from diseased genes
3. Offers a **powerful and precision** approach for hard-to-treat cancers
4. Flexible targeting with synthetic **siRNAs (specific targets)** and **microRNAs (multi-target)**

Current & Historical Limitations

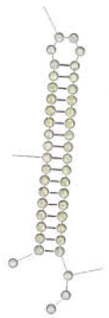
1. **Off-target Effects**: Risk of silencing healthy genes or immune overactivation
2. **Chemical modifications** may dampen RNA efficacy
3. **Targeting Tradeoffs:** siRNAs are limited to one target at a time, limiting their scope while microRNAs may target too many leading to off-target toxicity
4. **Delivery Failure:** Most platforms can't reach or persist in solid tumors

Speratum has engineered a solution to improve RNAi therapeutics through design and delivery

Our Solution: Cutting-Edge Innovations with Market Exclusivity

Redefining Cancer Treatment Through Integrated RNAi and Drug Delivery Platforms

Precision design + **Innovative delivery** ➡ **Combined into a novel therapeutic**



NoPass Design

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

Nano-in Delivery

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

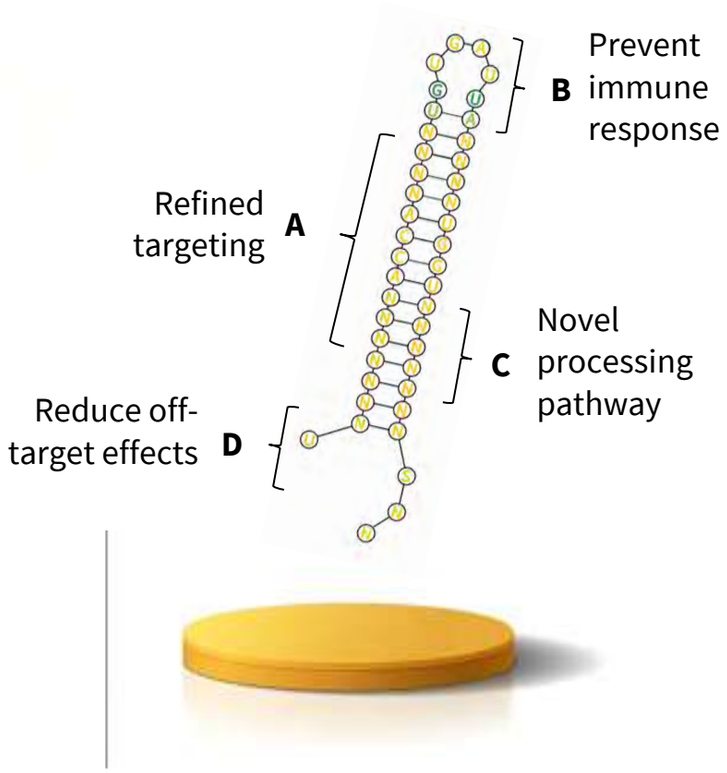
NM-198

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

Global IP with patented proprietary technologies and exclusive licenses from Baylor College of Medicine
Securing Exclusivity Through 2045+

Our Platform Technologies

NoPass RNAi



Powerful algorithm for improved design of RNAi therapeutics

A. The next generation of RNA interference

- NoPass molecules are engineered to function as a hybrid between siRNA and miRNA
- **Precision targeting:** Like siRNA, *NoPass* molecules are enhanced with tunable affinity for specific targets
- **Broad impact:** Like miRNA, *NoPass* can target dozens of cancer-driving factors simultaneously, attacking cancer from multiple angles.

B. Prevent activation of unwanted immune responses

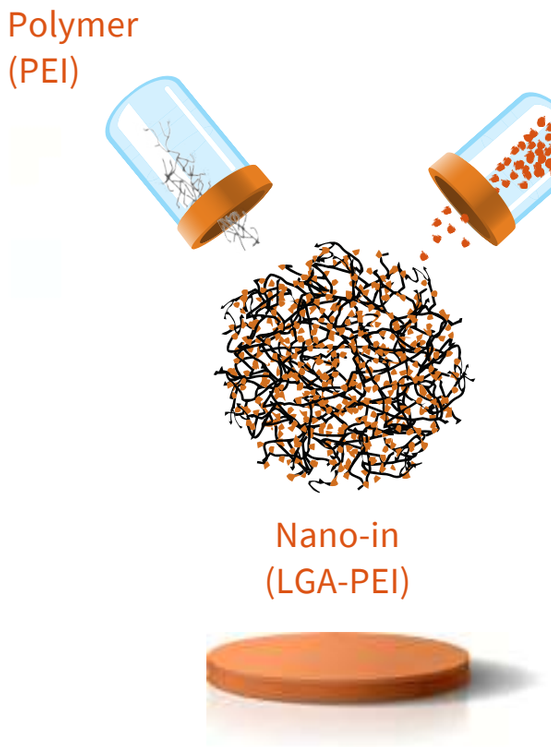
- *NoPass* is designed to avoid activation of cytokines and Toll-like Receptors, leading to safer RNAi through a first-in-class approach.

C. Designed to reduce off-target effects

- Designed to completely prevent off-target effects from incorrect strand processing
- Bypass the need for efficacy-dampening chemical modifications

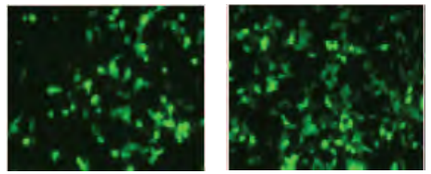
Our Platform Technologies

Nano-in Delivery



A breakthrough drug delivery system for nucleic acids

Delivery efficacy

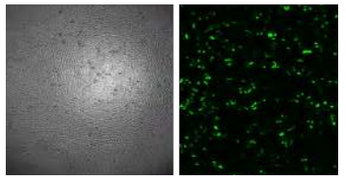


Market Leader Nano-in

PANC1 cells

Transfect dozens of cell lines efficiently, with less toxicity than the market leader.

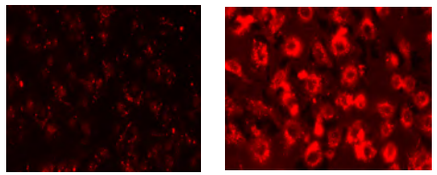
Stability



Transfection efficiency at 30 weeks of RT storage

Long-term stability at room temperature

Targeted Nanoparticles



No Receptor Receptor Present

Can be modified for receptor-directed targeting to specific cells or tissues.

Commercial and Therapeutic Potential

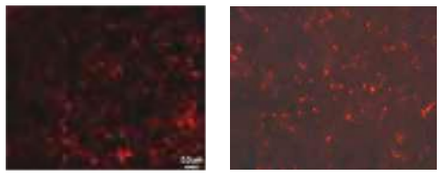
Scalable for CMC and GMP production.

1000x less expensive than other transfection reagents.

No loss of efficacy after lyophilization.

Same formulation for *in vitro* and *in vivo* applications.

In vivo therapeutic delivery

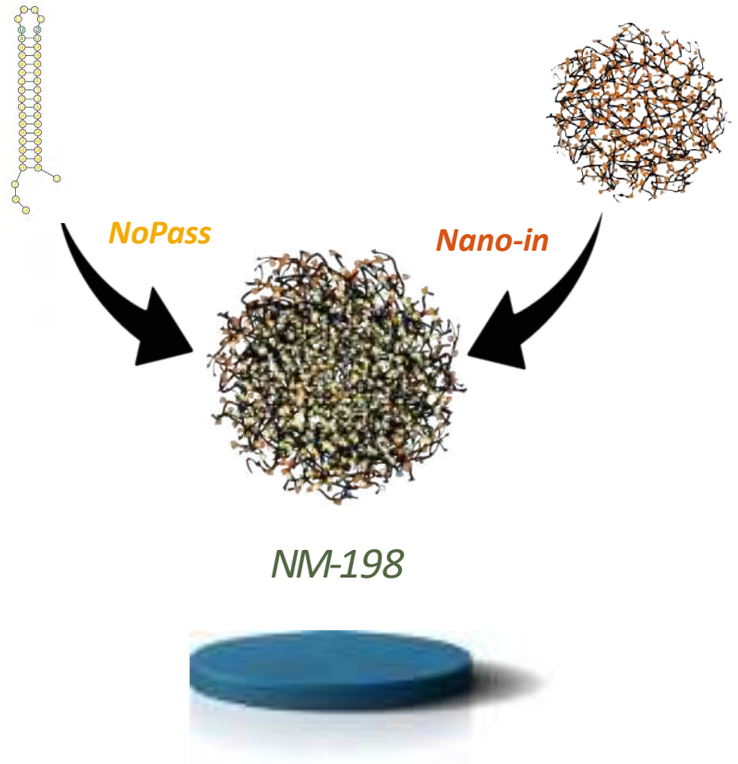


Pancreatic tumor Ovarian tumor

Accumulate efficiently in solid tumors, delivering an effective therapeutic dose.

Our Lead Therapeutic

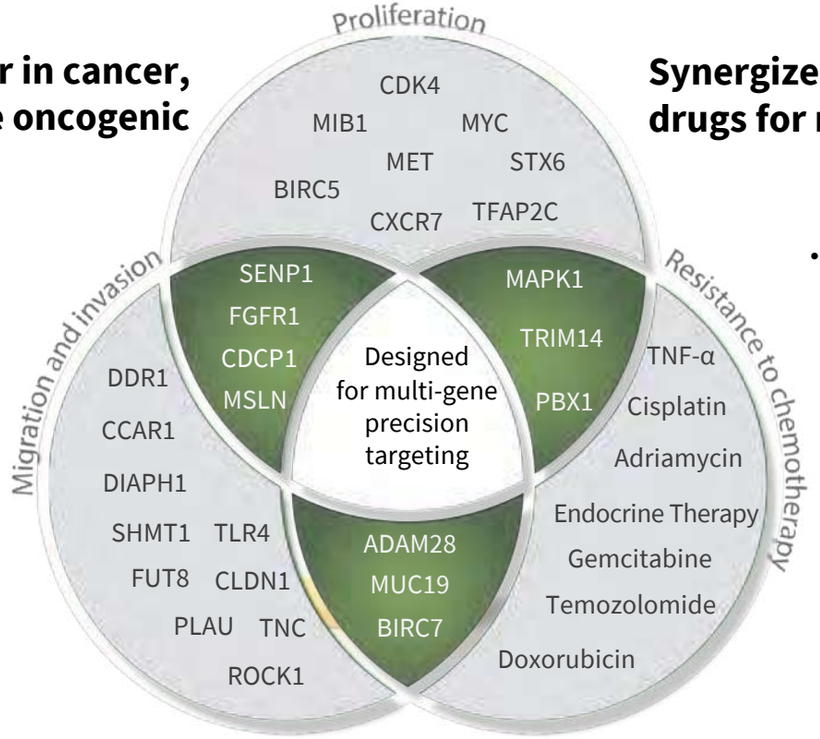
NM-198: Integrating our technology platforms for precision therapy with a broad impact



A powerful therapeutic approach to treat drug-resistant cancer

A central regulator in cancer, targeting multiple oncogenic factors

- With a single molecule, we can impact tumor growth, invasion, metastasis, survival, and multi-drug resistance.



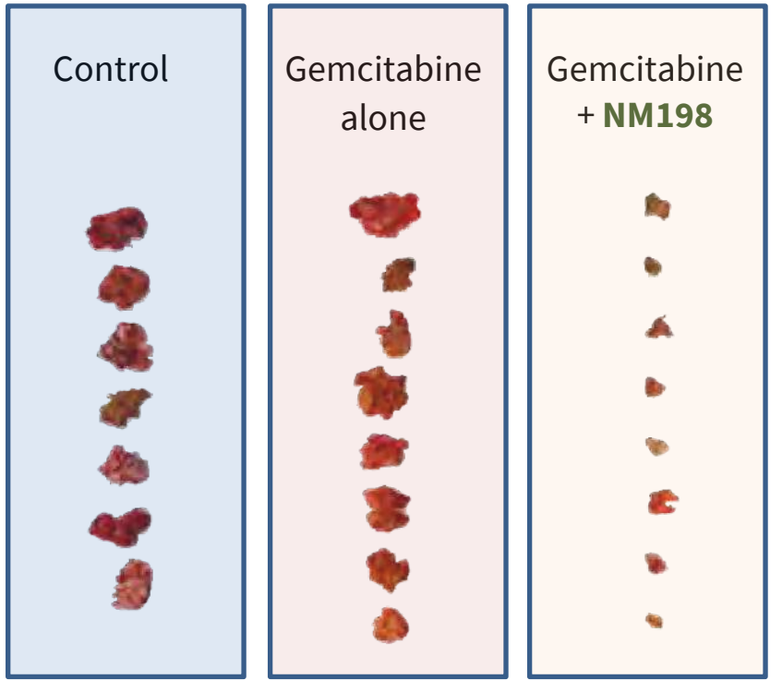
Synergizes with existing drugs for maximum impact

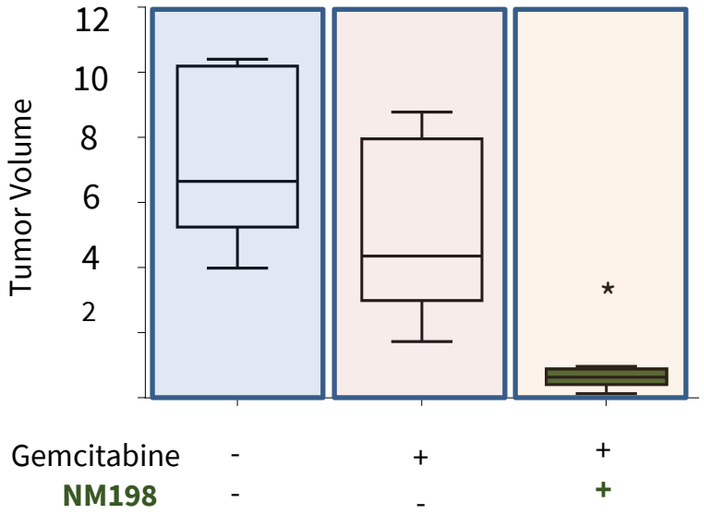
- Targets multiple factors involved in drug resistance and tumor cell survival across several types of solid tumors.

Targeted precision therapy with a broad impact against heterogeneous cancers.

NM-198: Efficacy Against Pancreatic Cancer

NM-198 synergizes with Gemcitabine for a powerful impact against aggressive, drug-resistant pancreatic cancer





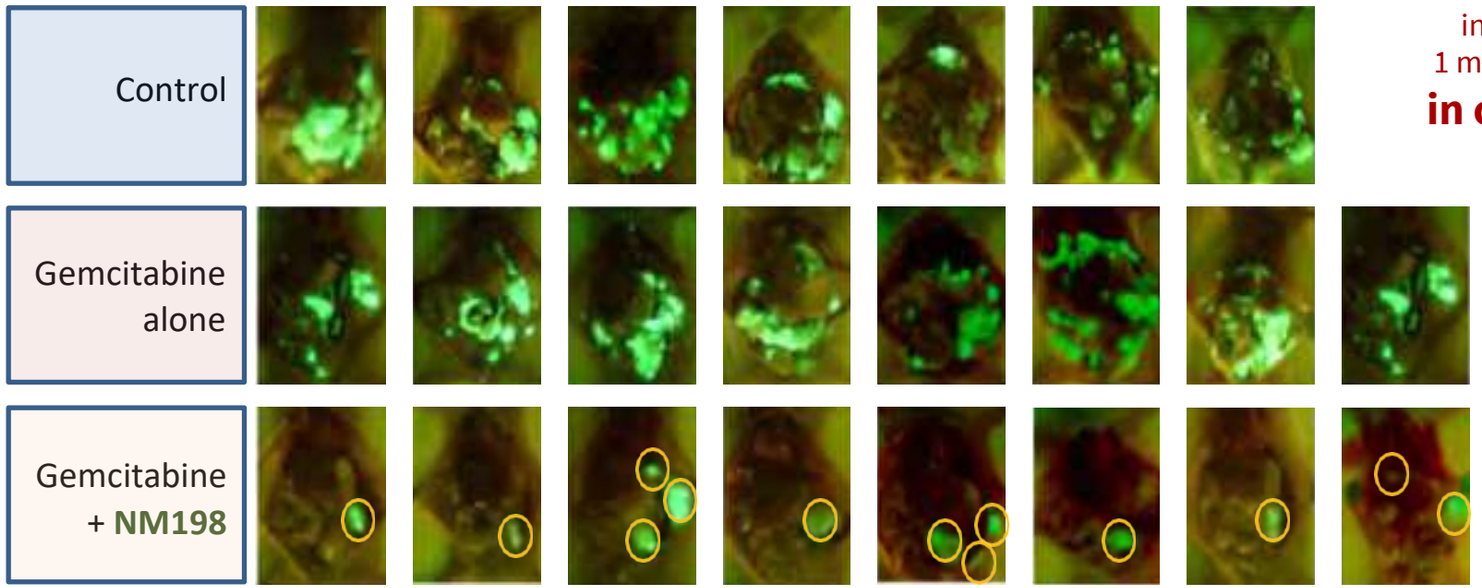
Result:
~ **90% reduction** in tumor size in 1 month when given **in combination**

8 mice per group, tumors extracted after 4 weeks

3 x / week intravenous therapy

NM-198: Efficacy Against Pancreatic Cancer

NM-198 synergizes with Gemcitabine for a powerful impact against aggressive, drug-resistant pancreatic cancer



Result:

~ 80% reduction

in metastases in 1 month when given

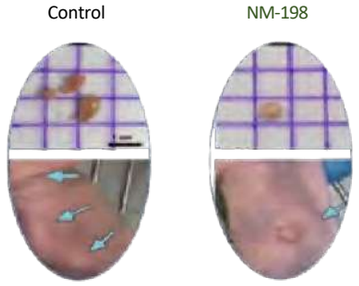
in combination

8 mice per group, tumors visualized after 4 weeks

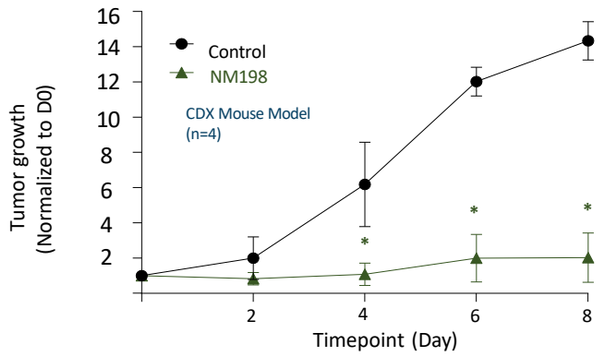
Thanks to its ability to target cancer from multiple angles, *NM-198* not only reduces tumor growth but also impacts metastases and tumor spread.

Efficacy against other solid tumors

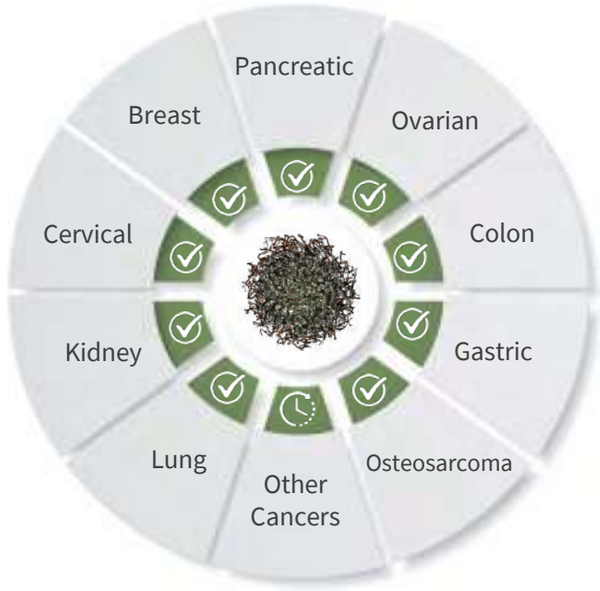
Ovarian Cancer



3 x / week intravenous

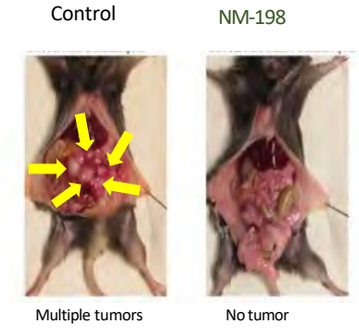


Result: Approximately **80% reduction** in tumor size in just 8 days given as **monotherapy**

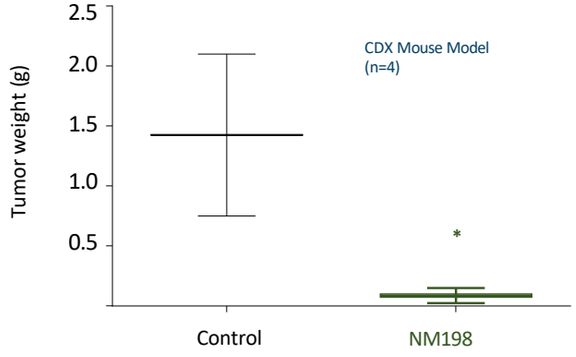


Designed to target dozens of cancer-driving factors, *NM-198* has broad applicability across different types of cancer.

Colon Cancer



3 x / week intraperitoneal



Result: Approximately **95% reduction** in tumor size in just 14 days given as **monotherapy**

NM-198: Safety as a primary outcome

NM-198 has a very favorable safety profile—even at high doses and prolonged administration, no danger or toxicity signals are observed

Does not activate cytokines or Toll-like receptors.

No alterations to organ function:

No abnormal liver/kidney function, or blood chemistries.

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

Meticulously designed clinical trial approach following IND-enabling studies

Use of funds

Next 12 months

$3M Raise to Achieve Critical Value-Driving Milestones

Positioning NM-198 for IND Submission and Clinical Entry

Speratum Biopharma Inc.

1

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

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

Will provide Critical translational validation to support human dosing strategy.

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

2

Full GLP Toxicology and IND-Enabling Safety Pharmacology

Execute comprehensive GLP toxicology studies required for IND filing.

Will validate the favorable safety profile observed so far in preclinical models.

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

3

CMC Scale-up & Manufacturing Readiness

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

Demonstrate robustness and reproducibility with regulatory confidence.

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
For pancreatic cancer, expanding into other solid tumors

Patents

Publications

Speratum Biopharma Inc.

Delivering hope through innovative cancer therapeutics

Contact

For more information

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

www.speratum.com

Website