

Mastering how non-biological particles meet living systems.

01

INVESTMENT THESIS

Myriad Labs is built around one durable capability: **understanding and engineering how non-biological particles behave inside the body**. It is a hard, broadly valuable problem, underpinning fields from environmental toxicology to nanoparticle-based medicine, that almost no one is equipped to work on.

Microplastics are our entry point, and a commercially validated one. The microplastic research field relies on synthetic beads that poorly represent real exposure, so it lacks its most fundamental input: **standardized, biologically relevant reference materials**. RealNP™ is the first to fill that gap:

- Made by mechanically fragmenting real plastic feedstock, not synthesizing spheres
- A revenue-generating platform that compounds particle–biology expertise and IP
- The first building block of a broader particle-engineering platform

02

WHY NOW

Plastic exposure research has hit an inflection point on three fronts at once:

\$1.5T

in annual health costs tied to chronic disease and aging now linked to plastic exposure

Rising

plastic production and waste generation increase human and environmental exposure every year

Exponential

growth in microplastics publications, plus new federal regulatory efforts and funding (e.g. ARPA-H, 2026)

Micro- and nanoplastics now show up in blood, the brain, reproductive tissues, and cardiovascular plaques, yet no widely accepted reference standard exists. **Every discipline converges on common standards; we intend to set them for plastic exposure.**

03

COMMERCIAL STRATEGY

RealNP™ is our commercial wedge. Rather than chasing a niche application, we start with the one input nearly every plastic-exposure lab needs before an experiment can begin: a biologically realistic, standardized reference material. This creates durable advantages:

	Universal demand	Any biology or medical lab can add a microplastic angle to existing research, a huge latent market
	Distribution leverage	Established scientific distributors put RealNP™ in front of thousands of labs with no added sales headcount
	Reference-standard lock-in	Once results are validated against RealNP™, labs keep re-ordering it, and every citation compounds the moat
	Standards path	Industry-scale production workflow improves reproducibility and cross-lab comparability, unlocking a path to shape future ISO & NIST standards
	Platform expansion	The same manufacturing and quality platform extends into additional infrastructure products

PLATFORM & MARKET

- IN DEVELOPMENT
- PLANNED

TODAY · COMMERCIAL WEDGE RealNP™ Reference Materials

REALNP™ MARKET SIZE

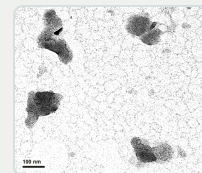
TAM \$1-3B

SAM \$30-50M

SOM \$5-15M



SHIPPING PRODUCT
100 nm nanoplastic



FRAGMENT MORPHOLOGY
TEM

IN PROGRESS Plastic Exposure Infrastructure

● Reference Standards – RealNP™ TODAY

○ Proficiency Testing

● Tracking Technologies

● Custom Design & Formulation

○ Analytical / Characterization

LONG-TERM Beyond Plastic Particles

ENVIRONMENTAL EXPOSOME,
EXPOSURE COUNTERMEASURES &
NANO-MEDICINE

Environmental Exposome

● Plastic Particles TODAY

○ PFAS

○ Wildfire Smoke

○ Allergens

○ etc

○ Nanoparticle Engineering
delivery & efficacy

○ Exposure Countermeasures
clearance & mitigation

COMMERCIAL PROGRESS

COMMERCIAL

- › First commercial sales closed; **>95% gross margin** reference standard; Shipping today
- › **15+ active research labs**, largely academic, spanning diverse biological fields & models
- › **Fisher Scientific** Preferred Partner onboarding for distribution through 1,200+ sales-rep channels
- › Joint technical application note in progress, authored by **Thermo Fisher Scientific**

TECHNOLOGY

- › **World's first** biologically realistic nanoplastic reference material
 - Biology-ready, detergent-free formulations
 - **Trackable** fragments via direct fluorescence embedding (top customer request)
- › Scalable manufacturing with plastic & milling industry partners (not lab-scale)
- › IP filed on fragmentation & surface engineering

LONG-TERM UPSIDE

RealNP™ is more than a first product. It is a profitable, commercially viable business today that funds the expertise we are truly compounding: engineering how nanoparticles interact with biological systems. Every advance in particle manufacturing, surface engineering, biological interfaces, characterization, and scalable production strengthens RealNP™ now and becomes the foundation for far larger opportunities, from the broader **environmental exposures to nanomedicine**. These are natural extensions of the same platform, not pivots away from it. **We are not taking a detour before building the real company; this is how we build it.**

TEAM

Ik-Jung Kim, PhD · Founder & CEO — 18+ yrs biological materials; Cell/Nature portfolio; UIUC, Buck Institute, UCSF; Solo-founded to first sales in 6 months

ADVISORS

Eric Verdin, MD — CEO of Buck Institute, Professor at UCSF; Consulted to Novartis, J&J, Roche, Pfizer; A leading voice in aging biology/longevity field

Jordan Burton, PhD — Scientist & investor; Formerly at Lifespan Extension Ventures; Advising across science, strategy & capital

FINANCING

\$500K

PRE-SEED SAFE

\$6M

VALUATION CAP

USE OF FUNDS

- › Accelerate commercial adoption
- › Expand manufacturing capacity
- › Develop next-generation platform



RealNP deck