Purcision™ Microparticle Platform

Engineering Therapeutic Microparticles for Intratumoral Delivery to Enhance Solid Tumor Response Without Added Toxicity

https://nanology.us/

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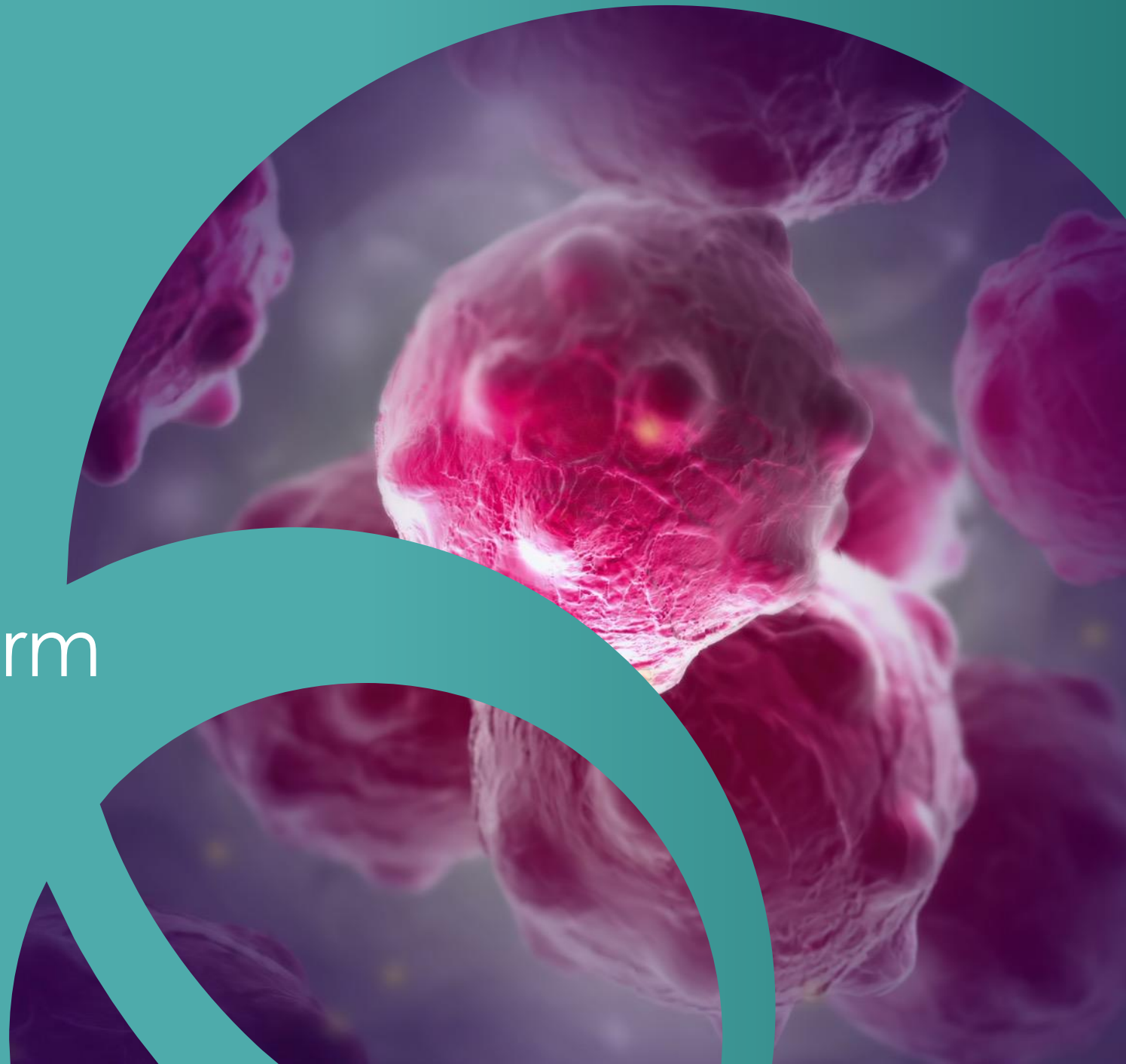

The locally-targeted **Purcision™** microparticle platform is designed to enhance solid tumor response

Differentiated Microparticle Platform

Commercial scale GMP Purcision technology produces **large surface area microparticles (LSAMs) of pure drug** for multiple drug classes (taxanes, platins, PARPIs, TKIs) and ROAs

Established Clinical PoC and Safety

Two intratumoral (IT) investigational drugs (LSAM-PTX, LSAM-DTX) have completed **7 Ph1/2a clinical trials in solid tumors** with excellent tolerability and signs of therapeutic benefit

Partnership-Driven Platform Expansion

Ongoing collaboration with a leading pediatric institution funding **IND-enabling studies of IT LSAM-Cisplatin** in a rare pediatric brainstem tumor and opportunity for **priority review voucher**

Advancing Towards Ph2b/3 Trials

We are pursuing **strategic partners** for clinical collaboration and preparing for a capital raise to advance IT LSAM-PTX into **Ph2b/3 LAPC** and **Ph2b resectable NSCLC** clinical trials

Strong market protection

Global IP portfolio of **>130 issued patents** in all major geographies

Composition of matter patents issued/pending on LSAMs valid through **2036** covering all key regulatory specifications

Patent for LSAMs with immune checkpoint inhibitors (CPIs) valid through **2038** offers life cycle extension opportunity for CPIs facing patent cliff

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LSAM-DTX: LSAM-docetaxel; LSAM-PTX: LSAM-paclitaxel; ROA: route of administration

New Awakening to the Benefits of Intratumoral Therapy

Interventional Interest

Historically limited by tumor access: Clinical interest in intratumoral (IT) therapy has existed for decades but was limited by inability to access solid tumors beyond the periphery

Interventional Oncology: Emerged as a discipline in the last ten years as advancements in ***imaging*** and ***robotically assisted platforms*** now allow access to solid tumors anywhere in the body

Medical Oncology Interest

Importance of primary tumor: Clinical recognition of the value of treating the primary tumor to prime the immune system to ***increase response to systemic SOC***

Targeted therapies fall short: Targeted therapies (ADCs, RLTs, others) contend with off target toxicities and IP/manufacturing complexities

Recent Industry Interest

Development pipelines: Clinical development of IT drugs has exploded over the last few years to more than 175 clinical trials across multiple drug classes[1]

Growing investment from pharma: ***J&J Interventional Oncology*** division leads the way with recent expansion of deal with Nanobiotix on Intratumoral NBTXR3 valued at up to $2.6B

Intratumoral Therapy

Intratumoral Research now on forefront: IT delivered agents are on the forefront of clinical research in both early and late disease because they show significant promise in causing immunogenic tumor cell death to prime the immune system, which increases response to immunotherapy SOC without increasing toxicities

Leader in IT drug development: Established in 2015, Nanology has clinically studied its IT LSAM investigational drugs in over 175 patients across 6 solid tumors and various ROAs establishing safety, signs of therapeutic benefit, and anti-tumor immunomodulation

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SOC: standard of care; ADC: antibody drug conjugate; RLT: radioligand therapy; LSAM: large surface area microparticle; ROA: route of administration

1. Intratumoral Injection of Immunotherapeutics: State of the Art and Future Directions. Rahul A. Sheth, Eric Wehrenberg-Klee, Sapna P. Patel, Kristy K. Brock, Nicos Fotiadis, and Thierry de Baère. Radiology 2024 312:1

NanOlogy **Purcision™** Microparticle Platform

Combination therapy is necessary for solid tumor treatment – but systemic combinations fall short

Key challenges of systemic combination therapies

Off-target toxicities
Systemic delivery leads to toxic exposure in healthy tissues

Suboptimal drug exposure
Systemic therapies are typically unable to maintain high levels of drug at the tumor site, reducing efficacy

Limited immune engagement
Lower local drug concentrations may not sufficiently trigger anti-tumor immunity needed for durable response

Stacked toxicities limit combination therapies
Combinations of systemic therapies increase toxicities including immune suppression, limiting the efficacy of promising combinations

Our Solution: NanOlogy Purcision™ microparticle platform

Localized Precision
LSAMs delivered directly to the tumor prime the immune system to increase response to systemic IO SOC without increasing toxicities

Enhanced Anti-Tumor Immunomodulation
Exposure to high, continuous drug concentration promotes immunogenic tumor cell death and anti-tumor immunity

High, Sustained Drug Exposure in Tumor
Concentrated local drug dose and continuous drug release over time enhances tumor kill

Purcision enables the full potential of combination therapies
Engineering of otherwise toxic drugs into optimized drug microparticles allows local delivery for combination with systemic therapies without increasing toxicities

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The Purcision™ platform is foundationally validated and offers broad clinical and commercial potential

Platform Technology with Demonstrated MOA

- **Proof-of-platform demonstrated**: LSAM agents achieve high local and low systemic drug concentrations post IT delivery
- **Anti-tumor MOA:** Locally-delivered LSAM agents drive tumor cell death in preclinical and clinical studies
- **Immunomodulatory MOA**: IT LSAM-PTX leads to altered immune tumor microenvironment

Excellent Safety Profile and Broad Clinical Applicability

- Excellent tolerability across **175 patients** in 7 clinical trials with **no confirmed drug-related SAEs**
- **Clinical potential** of IT LSAM-PTX has been shown in locally advanced pancreatic cancer
- Clinical trials in **6 solid tumors** and **various ROAs** (IT, IP, IMI, IVe) offer multiple clinical development opportunities

Expansive Market Potential with Favorable Regulatory Path

- The Purcision platform is **suitable for multiple drug classes** with toxicity challenges, expanding market potential
- **505(b)(2) regulatory pathway** offers reduced development timeline and costs to NDA
- Emergence of the **interventional oncology** field and successful clinical trial execution encourages further development of IT drugs

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IMI: Intramural injection; IP: Intraperitoneal; IT: Intratumoral; IVe: Intravesical; LSAM: large surface area microparticles; LSAM-DTX: LSAM-docetaxel; LSAM-PTX: LSAM-paclitaxel; MOA: Mechanism of Action; ROA: Route of Administration; SAE: Serious Adverse Events

NanOlogy Lead Programs

Product	Initial Indication	Delivery	Feasibility	IND	Phase 1	Phase 2
LSAM-PTX	Resectable, High-Risk Non-Small Cell Lung Cancer	Intratumoral	*Phase 2b protocol submission to FDA planned 1Q2025*			
	Locally Advanced Pancreatic Cancer	Intratumoral	*Phase 2b/3 protocol submitted to FDA in June 2024*			
LSAM-Cisplatin	Diffuse Intrinsic Pontine Glioma	Intratumoral	*Research Collaboration*			

Resectable, High-Risk NSCLC

~530K patients per year (Global)

Locally Advanced Pancreatic Cancer

~175K patients per year (Global)

Diffuse Intrinsic Pontine Glioma

~300-600 children diagnosed per year (US/EU)

Opportunity for priority review voucher

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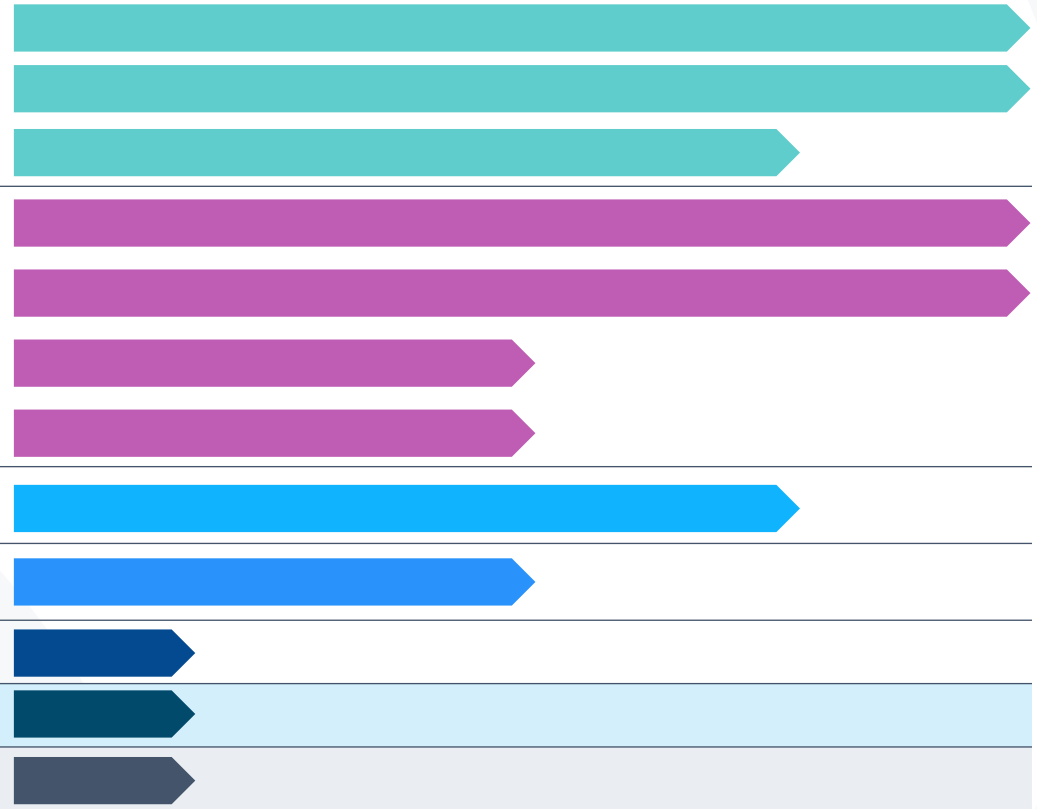
LSAM: large surface area microparticles; LSAM-PTX: LSAM-paclitaxel

NanOlogy Platform Expansion Programs

Total market opportunity for all programs including NSCLC and LAPC > 1.5 million patients globally

Product	Therapeutic Area	Delivery	Feasibility	IND	Phase 1	Phase 2
LSAM-PTX	Prostate Cancer	Intratumoral				
	Peritoneal Malignancies / Ovarian Cancer	Intratumoral				
	Mucinous Cystic Pancreatic Neoplasms	Intratumoral				
LSAM-DTX	Non-Muscle Invasive Bladder Cancer	Resection Bed Injection & Intravesical Instillations				
	Muscle Invasive Bladder Cancer	Resection Bed Injection & Intravesical Instillations				
	Renal Cell Carcinoma	Intratumoral				
	Prostate Cancer	Intratumoral				
Topical Submicron Particle Paclitaxel	Cutaneous Metastases of Breast Cancer	Topical				
LSAM-PTX for Inhalation	Non-Small Cell Lung Cancer	Nebulized Inhalation				
LSAM-Cisplatin	Solid Tumors	Intratumoral				
LSAM-PARPIs	Solid Tumors	Intratumoral				
LSAM-TKIs	Solid Tumors	Intratumoral				



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LSAM: large surface area microparticles; LSAM-DTX: LSAM-docetaxel; LSAM-PTX: LSAM-paclitaxel; LSAM-PARPI: LSAM-PARP inhibitor; LSAM-TKI: LSAM-tyrosine kinase inhibitor

Partner With Us

Purcision™ Platform

LSAM investigational drugs have therapeutic potential as single agents or in combination across the cancer disease spectrum

NanOlogy is open to clinical collaboration, licensing, co-development to expand platform, or broader partnerships

Partnering Opportunity

Grow and Differentiate your Oncology Portfolio

Enhance your portfolio with a **platform technology** that addresses challenges in drug delivery, safety, and combinations

Success across drug classes and indications offers opportunities to **optimize existing assets and develop new therapies**

Strong IP Protection and Lifecycle Value

Over 130 issued patents globally, offering **robust market protection**

The Purcision platform can be applied to NCEs or leveraged to **extend lifecycle** for drugs facing patent cliff

Streamlined Development and Commercialization

505(b)(2) regulatory pathway can **accelerate development** and **reduce costs to <$100M** for NDA submission, while maintaining innovator pricing

Commercial scale GMP production and expanding interventional oncology field ensures **smooth transition from R&D to commercial**

Marc Iacobucci
Business Development
marc.iacobucci@nanology.us

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LSAM: large surface area microparticle