

**Visano**  
THERANOSTICS

**REVOLUTIONIZING  
ULTRASOUND IMAGING**

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# SUMMARY

Ultrasound imaging has the potential to provide life-saving diagnostic and therapeutic interventions to every patient.

Unlike the resource-intensive MRI, PET, or CT technology, ultrasound is portable and cost effective yet exceptionally powerful.

Contrast media improves image quality in all diagnostic applications. Ultrasound has lagged behind.

**Visano** harnesses the power of nanomedicine and sound to bring precise cancer diagnosis and theranostic potential to standard ultrasound technology. The new contrast media can target specific cell biomarkers, works for small parts, high frequency imaging modes and provides on-demand cavitation for drug-free treatment.

# INTRODUCTION

## WHAT WE DO

Our mission is unlocking the full potential of ultrasound using a new type of contrast agent. With capability for cancer-specific accumulation and targeting biomarkers, the nanobubble technology brings molecular imaging to the forefront of ultrasound-based diagnosis. Noninvasive theranostic applications using the same platform can augment image-guided therapies and trigger potent immune reactions to help treat otherwise untreatable tumors.

## WHO WE ARE

With over 50 years of combined experience our founders bring expertise in molecular biology, nanomedicine, biomedical ultrasound, image-guided drug delivery and translation of technologies from bench to bedside.



### **Agata A. Exner, Ph.D.**

Inventor, Co-founder

Professor of Radiology & BME, CWRU

20+ years of experience in imaging and nanomedicine



### **James P. Basilion, Ph.D.**

Inventor, Co-founder

Professor of Radiology & BME, CWRU

30+ years of experience in molecular imaging, translational tech



### **Michael Haag, MBA, M.S.**

Co-founder, Chief Executive Officer

Visano Theranostics

20+ years of experience in technology commercialization



## BUSINESS PRIORITIES

- IND-enabling studies
- cGMP manufacturing
- First in human clinical trial



## ADDED VALUE

- Increased cancer specificity
- Reduced healthcare cost and patient anxiety
- Great response at high US frequencies



## OPPORTUNITIES

- Cancer imaging
- Cancer therapy
- Augmenting existing therapies
- Complements existing workflows

# TECHNOLOGY OVERVIEW

Visano's nanobubble technology presents a significant advancement in ultrasound imaging. By addressing the limitations of current microbubble contrast agents, Visano aims to revolutionize cancer diagnosis and treatment, starting with prostate cancer. The technology offers the potential for more accurate, less invasive, cost-effective, and widely accessible imaging and targeted therapy. The company has a clear path for development, regulatory approval, and commercialization, supported by a strong market opportunity and a team with relevant expertise.

## CURRENT GAPS IN ULTRASOUND CONTRAST

MICROBUBBLE Contrast agents cannot leave the vasculature and thus lack direct cell access outside of the endothelium. This restricts their application to intravascular imaging.

Microbubbles cannot be directed to specific, extraluminal cancer cell biomarkers.

Microbubbles have a limited circulation time. This limits the window for imaging and therapeutic intervention.

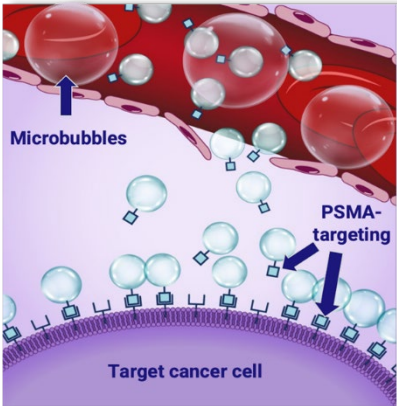
## NANOBUBBLES ENABLE BETTER CANCER DIAGNOSIS

Visano proposes nanobubbles (20-200 nm diameter) as a superior alternative, offering several key advantages:

- Extravascular Applications: Nanobubble smaller size allows them to leave the vasculature and reach target cells.
- Targeting Capabilities: Nanobubbles can be functionalized to target specific markers on cancer cells such as PSMA (Prostate-Specific Membrane Antigen), improving diagnostic accuracy and enabling targeted biopsy and therapy.
- Effective for High Frequency Ultrasound: This enables better resolution and imaging of small parts like the thyroid, breast, and testes, expanding the market for contrast-enhanced ultrasound
- Therapeutic Potential: Non-invasive NB collapse results in immune response, targeted cell death, and halted tumor progression.

# WHAT'S NEXT

Visano's technology builds upon the inherent benefits of ultrasound imaging and positions its technology to enhance these advantages. Visano aims to leverage the advantages of ultrasound by overcoming its limitations with their targeted nanobubble technology.



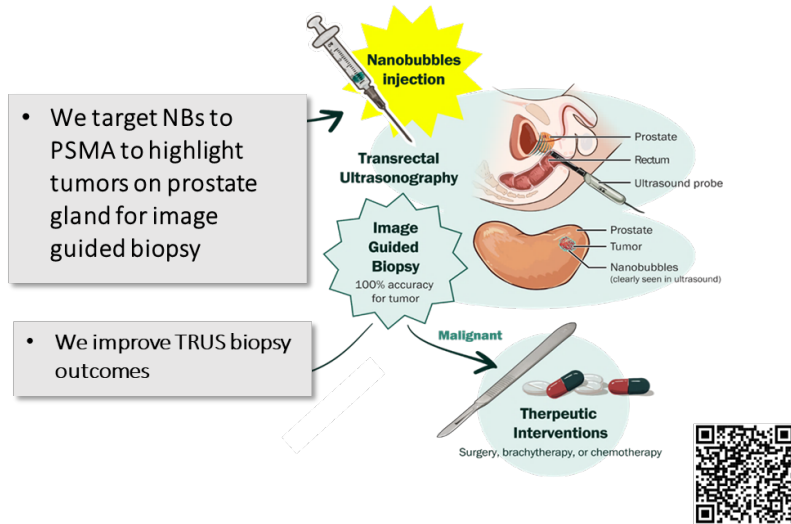
Use of Visano's contrast media allows better visualization of prostate lesions

Targeted nanobubbles escape the vasculature and enable selective visualization of cancerous tissue during TRUS biopsies, improving outcomes

While the nanobubbles are a platform technology, the initial focus of Visano is on *improving prostate cancer diagnosis and treatment*:

We address the problem of suboptimal TRUS-guided Biopsies. Despite being used for every prostate biopsy, TRUS is not able to guide the needle to specific lesions of interest. Repeat biopsies 2-3 times on average can lead to complications, discomfort & anxiety; Costly MRI with US image fusion takes time, is costly and only available at major medical centers

## Our Solution for Prostate Cancer Diagnosis:



There are 1.3 Million Prostate biopsies per year in the USA using transrectal ultrasound. This underscores the significant market size. Total market for diagnostic applications: \$900M (initial and follow-up biopsies).

Potential Healthcare Cost Savings: reduction in repeat biopsies can reduce costs by >\$2.3B.

Competitive Advantage: Unique combination of high-frequency responsive agents, unique targeting ligands and theranostic potential.

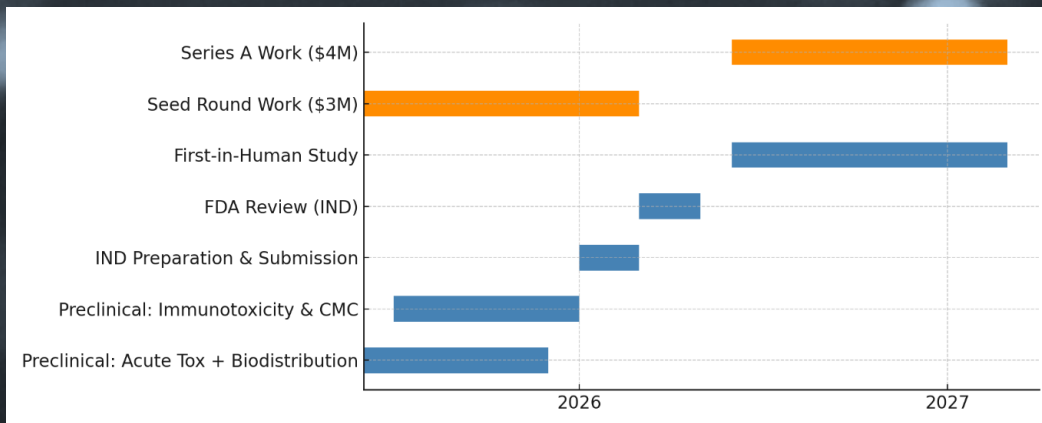
Our approach highlights the cost-effectiveness, accessibility, real-time imaging, and minimal workflow change

Expansion to Other Cancer Types: Potential utility of targeted nanobubbles for Prostate, Liver, Pancreas cancers, indicating a broader market reach.



## Visano 505(b)(2) Development Timeline & Funding Strategy

- Timeline: Preclinical (2025-26) to IND (2027-2030)
- Key Milestones: These include company launch, securing licenses, production scale-up, preclinical studies (GLP Tox/PK), IND application and approval, and clinical trials (Phase I, II-III) leading to regulatory approvals and clinical launch.



### TWO-STAGE CAPITAL STRATEGY

#### Seed Round (\$3M) – 2025 Mid-Year Start

- Acute GMP tox studies, biodistribution, immunotoxicity
- CMC development, IND prep and submission

#### Series A (\$4M) – 2026 Start

- First-in-Human PSMA-NB prostate imaging study
- GMP scale-up and OEM engagement
- Clinical data generation and commercialization strategy

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