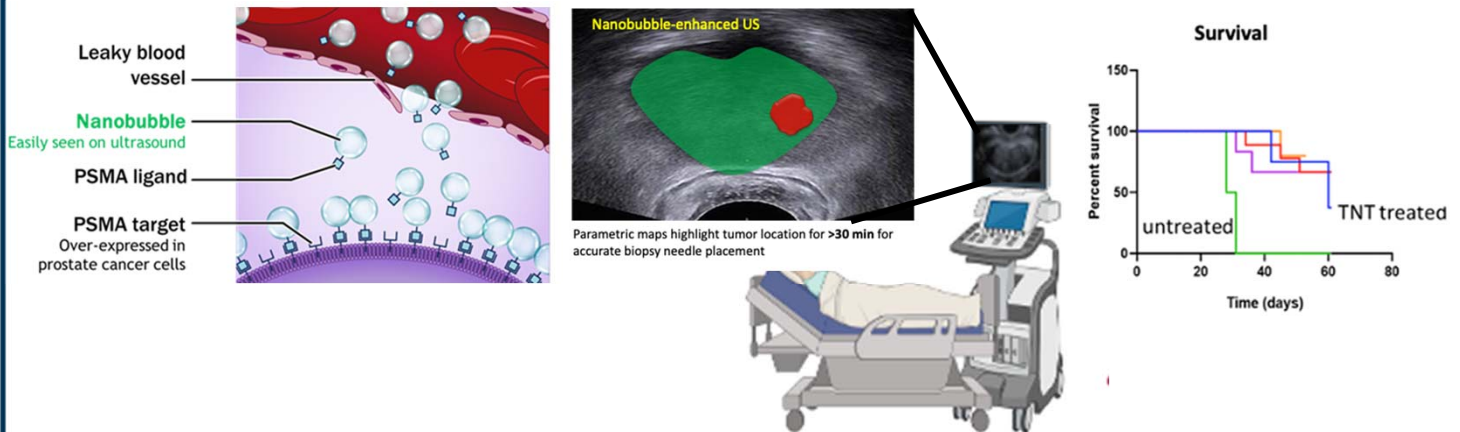


Tumor Targeted Nanobubbles for Real-Time Ultrasound-Guided Prostate Cancer Biopsy and Therapy



PSMA-Nanobubbles (PSMA-NB) bind to cancer cells for ultrasonic diagnosis and guided biopsy of prostate tumors. Ultrasonic excitation of PSMA-NB, known as TNT, kills cancer cells and expands technology to therapeutic applications.

Technology

- Prostate tumors are difficult to detect and biopsies are done blindly
- PSMA-labeled Nanobubbles given before biopsy with single IV shot, hone to and bind specifically to prostate tumors
- PSMA-Nanobubbles serve as beacons to visualize the tumors; creating ultrasonic tumor maps to guide the urologist during biopsies to the tumor site
- Procedure fits into existing workflow, builds upon existing technology
- Platform technology with therapeutic potential known as Targeted Nanobubble Therapy or “TNT” – sends an ultrasonic pulse to the bound PSMA-Nanobubbles killing the tumor cells in a precise cancer therapy approach

Opportunity

- Nearly 1.3 million prostate biopsies / year in USA
- Estimated cost of a nanobubble injection: \$300-\$500
- Total US market opportunity: \$390M for initial biopsy plus \$63M for follow up biopsies
- Healthcare cost savings: reduction in repeat biopsies can reduce costs by >\$2.3B
- PSMA also expressed in head and neck cancers, some lung cancers, and the neovasculature of many solid tumors
- Therapeutic opportunity is even larger

Seeking

- Licensing of IP
- Start-up Leadership
- Investment to develop and commercialize the technology
- Sponsored research

Technology Readiness

Large animal studies underway, non-GMP Tox completed; Clinical studies planned

Commercial Pathway

Available for licensing and/or start-up consideration

Intellectual Property

1 issued patent, 5 pending applications

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