Company Profile

**Industry Sector:** Oncology Therapeutics and Drug Delivery

**Company Overview:**
- Core team of pharmaceutical scientists with thought leaders in translational research
- Focus on R&D of oncologic products for treatment of solid tumors, from discovery through early proof-of-principle clinical evaluations
- Goal is to deliver the right drug to the right target at the right amount and at the right time, and avoid the wrong targets
- Achieve goal by integration of three platform technologies: (a) tumor-selective and tumor-penetrating nano/microparticles to deliver effective drug concentrations, (b) noncytotoxic chemo/radiosensitizers with unique targets, and (c) predictive computational models of biological processes ranging from intracellular signaling to clinical trials
- Projects funded by nine SBIR and RO1 grants from the NCI, collaborative agreements with pharmaceutical companies, private investors
- Networks of collaborating academic scientists and thought leaders

**Target Markets of Optimum products:**
- Cancers amendable to loco-regional treatments: bladder cavity, peritoneal cavity (pancreatic, ovarian, colorectal)
- Cancers amendable to systemic treatments: lung, breast

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Key Value Drivers

**Technology:** Tumor penetrating chemo-loaded microparticles (TP-Micro1)

**Competitive Advantage:**
- In US, 230,000+ new cases of cancers derived from organs in peritoneal cavity per year. Cavity is also site of metastasis in 50-70% of all cancers
- No FDA-approved product for intraperitoneal treatment of peritoneal cancers, in spite of well documented effectiveness of intraperitoneal treatment in patients (16+ months longer survival)
- Current practice is off-label use of intravenous products, not suited to the unique properties of peritoneal cavity (rapid drainage) and not able to penetrate bulky tumors
- TP-Micro1 addresses above unmet needs
  - Lead product in our proprietary first-in-class, multi-component, multi-functional, tumor-targeting and tumor-penetrating delivery system designed for treating peritoneal cancer
  - Can be used alone as therapeutics or to improve delivery of other therapeutics (new agents or life cycle management of off-patent or repurposed drugs)
  - Demonstrated superior efficacy, safety, toxicity, and PK/PD profiles over the standard-of-care in mice bearing pancreatic and ovarian tumors
  - Currently in GMP, phase 1 protocol in place

**Plan & Strategy:** Drive development through early clinical evaluations; have capability & access to resources to complete early clinical development. Seek co-development partners or licensees.

*Technology funded by the NCI and being commercialized under the NIH-CAP

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Management

**Leadership:**
- Jessie Au*, Pharm D., Ph.D. - Chief Scientific Officer and Acting CEO
  - Expert in preclinical-to-clinical translational research
- Ze Lu, Ph.D. - Senior Research Scientist
  - Polymer chemist, Laboratory management
- Trini Wientjes, J.D. - Director of Operations
  - In-house counsel, Operational management

**Scientific Advisory Board:**
- Steven Bramer, Ph.D. - President, First-Stop Consulting, LLC
  - FDA regulatory affairs
- Guill Wientjes, Ph.D. - Professor of Pharmacy, The Ohio State University
  - Modeling PK/PD, Clinical trial design

Plus additional advisors from legal, business, scientific, and regulatory fields

*Distinguished University Professor, The Ohio State University

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Product Pipeline [www.optimumtx.com/research]

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<tr>
<th>Product</th>
<th>R&amp;D</th>
<th>In vivo preclinical</th>
<th>IND</th>
<th>Phase 1 Clinical Study</th>
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