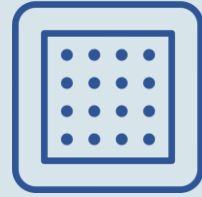


SINGLETIME MICRONEEDLES

Executive Summary

Spring 2023

STM



COMPANY OVERVIEW

SingleTimeMicroneedles created a patented, painless, removable, transdermal microneedle platform that can deliver vaccines and therapeutics cheaper, quicker, and more effectively in humans and animals. STM's delivery technology is the only platform engineered to deliver single- or multi-dose medications in one application without needles or other equipment. With vaccines, by eliminating pain, refrigerated supply chains, and the need for specially trained health care personnel, STM's patch will reduce costs, improve patient access, enhance prophylactic outcomes, reduce personnel burdens, and resolve supply chain challenges.

INDUSTRY	YEAR FOUNDED	LOCATION	FUNDING TO DATE	STAGE OF COMPANY
Pharma, Medical Devices, Biotech, Drug Delivery	2020	Farmington, CT	\$90,000	VP (Pre-Seed Round Open)

COMPANY NEEDS

Pre-Seed Round: \$1mn

- Build our lab space, conduct animal studies for drug applications, begin FDA pre-submission process

Partnerships:

- Pharma,
- Veterinarian
- Distribution
- Global/Public Health Leaders

TARGET MARKET

Initial target markets are animal vaccines and medications that benefit from multiple doses, especially veterinary medications that have shorter go-to-market timelines but also support STM's human-based research. Human applications of vaccines, such as for Pneumococcal, HPV, DTap, and drugs such as hormones, GLP, and long-term pain. Veterinary applications include companion animals as well as livestock with non-live vaccines and drugs such as ivermectin and GLP.

FOUNDING TEAM



Jasdeep Singh
CEO & Co-Founder

Thanh Nguyen
Co-Founder

BUSINESS STRATEGY

STM's business strategy is to leverage pharma and manufacturing relationships to bring products to market with early revenues leading to later stage revenues, primarily realized through licensing. With companion animal drugs (ex. Ivermectin), our work with a manufacturer and veterinary distributors would allow STM to go-to-market quicker. Once traction and revenue has been developed, STM would look to license the products to other companies for growth. The veterinary data, operational knowledge, and revenues would fund further research and support our FDA regulatory pathway for human applications. Vaccines would require a partnership with a pharmaceutical company to access their biologic agent. The product would then be licensed to the pharmaceutical company for manufacturing and distribution.

VALUE TO CUSTOMERS

1. Greater access to lifesaving vaccines and drugs
2. Lower costs/higher margins
3. Increased effectiveness
4. No pain
5. Reduced clinic/doctor/veterinarian visits

COMPETITIVE ADVANTAGE

In comparison to the current microneedle/drug delivery market, STM has a few key advantages:

1. Can deliver multiple doses with a single application.
2. Equally applicable with vaccines and drugs/therapeutics.
3. Thermally stabilized vaccines, including mRNA, to eliminate all cold-chain supply constraints

TECHNOLOGY HIGHLIGHTS/MILESTONES

1. Core-shell technology allows applications from vaccines to therapeutics to nutraceuticals.
2. Patch is removed within minutes and microneedles remain embedded
3. Painless and invisible to the naked eye
4. Microneedles are made from a surgical suture-like polymer
5. Biologics are stabilized against high temperatures (no cold chain)
6. Has been tested to be effective with vaccines and small molecules