



*“Our mission is to replace the 160-year old hypodermic needle with our proprietary, safe, painless, and innovative microneedle injection system (MNIS).”*

**Business Summary**

Microdermics is a Vancouver based, UBC spin-out focused on commercializing a novel MNIS that will transform healthcare for millions of people by: reducing fear-associated barriers to compliance, reducing the risk of needlestick injuries, and eliminating the need for healthcare professionals through self-administration of annual vaccines and certain therapeutics.

**Problems/Solutions**

Millions of people around the world avoid routine medical treatment due to fear of hypodermic needles—**we eliminate the needle**. Large biopharmaceutical companies need innovative delivery systems to drive product adoption—**we can extend product life cycles**. Profit margins in the global vaccine market are diminishing—**we can improve product margins via the "dose sparing" effect**.

**Product**

Microdermics produces a robust microneedle technology platform that can be custom designed to optimize results for vaccines and therapeutics. Our unique manufacturing process allows us to fabricate sub-millimeter hollow projections on an array comprised of 1 to 100+ microneedles. The resulting microneedle arrays easily integrate into existing medical syringes for rapid product adoption.

**Target Market**

The vaccines and biopharmaceutical markets are expected to reach combined sales of \$110 billion in 2019 and grow at ~10% per annum to \$160 billion in sales by 2023. This growth will be fueled by new innovative drug delivery technologies like our MNIS that will satisfy demand for safe, painless, and cost effective devices.

**Regulatory Strategy**

Microdermics will secure regulatory clearance with the US FDA and Health Canada via the 510k pathway, which is a well-defined process requiring a “predicate” device and bench testing demonstrating substantial equivalence to a previously approved medical device, which in our case is a microneedle device developed by our competitor Nanopass.

**Business Model**

Our initial business model is to enter into master product development and commercialization agreements with biopharmaceutical companies that provide exclusive use of our MNIS in combination with a partner’s marketed/approved therapeutics and/or vaccines.

**Competitors**

- Have a 10-20x higher cost of goods due to manufacturing process & materials
- Do not offer customized solutions to optimize the performance of specific drugs
- Several are solid (vs hollow) microneedles requiring modifications to the Actual Pharmaceutical Ingredients (API) adding years to the commercialization timeline and millions of dollars for clinical trials
- Use longer microneedles that do not target the ideal cells in the upper dermis where many drugs show increased effectiveness

**A Sustainable, Competitive Advantage**

Unlike our competitors, Microdermics has the potential to establish the gold standard for drug delivery by optimizing the performance of vaccines and therapeutics by manipulating the method of delivery. Our competitors are unable to modify their microneedles due to technical feasibility and cost constraints. Microdermics is already establishing the foundation for future success by negotiating strategic collaborations with several companies.

**Company Profile:**

- [www.Microdermics.com](http://www.Microdermics.com)
- Industry: Medical Device
- Employees: 8
- Founded in June 2014
- HQ: Vancouver, BC

**Management Team:**

- Grant Company, CEO
- Dr. Boris Stoeber, CTO
- Dr. Urs Hafeli, CSO
- Dr. Iman Mansoor, VP of Engineering
- Sahana Ranamukhaarchchi, VP of R&D
- Tullio Esposito, VP of Clinical Research

**Financial Summary:**

- Company Stage: Prototype Testing
- Capital Raised: \$165K
- Capital Sought: \$500K
- Lead: K5 Ventures, Newport Beach, CA

**Lawyers:** Axium Law Group

**Accountants:** Bishop & Wallace LLP

**Contact Person:**

- Grant Company, CEO
- [Grant@Microdermics.com](mailto:Grant@Microdermics.com)
- 415-902-7080

| Financials (CA\$) | 2016      | 2017      | 2018        | 2019      | 2020       | 2021       | 2022       |
|-------------------|-----------|-----------|-------------|-----------|------------|------------|------------|
| <b>Revenue</b>    | 0         | 150,000   | 75,000      | 8,698,750 | 19,651,813 | 38,124,921 | 69,803,129 |
| <b>Expenses</b>   | 385,944   | 1,048,881 | 1,774,134   | 2,095,481 | 2,381,290  | 2,723,621  | 3,133,700  |
| <b>Net</b>        | (385,944) | (898,881) | (1,699,134) | 6,603,269 | 17,270,523 | 35,401,300 | 66,669,429 |