

# Pulse

## EMF Therapy

Carter Pate, Garrett Hodges, Ian Mackenzie, Kameron Kirby, Madden Bell



# Problem

- The degradation of cartilage can be caused by many factors, including aging, genetics, and injuries, which can affect anyone
- Cartilage wear and tear can result in osteoarthritis, bone spurs, and reduced mobility and range of motion
- Natural cartilage regeneration is limited due to the lack of regenerative cells and level of blood delivered to the tissue
- The leading three methods for treating cartilage damage are surgery, medications, and injections



# What is Pulse?

- Pulse uses a pulsed electromagnetic field to both stop the degradation of cartilage and encourage new cartilage growth in various joints of the human body.
- Uses NASA patent No. 10,724,030 B2
- This non-invasive technique can be used in lieu of surgery for anything from rheumatoid arthritis to severe joint trauma.
- Pulse devices would be sold to clinics, with which a continued support relationship will be maintained



# Interview Summary

- Important Factors

- Legal Team
  - To protect us from any mishaps while using the team
- Non-Invasiveness
  - Many consumers wanted to avoid surgery out of fear and to avoid spending too much money
- Length of Treatment
  - Many consumers were okay with meeting a couple times a week for ~15 minute sessions, on top of therapy itself | Similar to STIM therapy

- Doctor's Offices vs. At-Home Remedy

- Recommended to be at doctor's office or therapy sessions in order to avoid consumer mistakes
- Having at doctor's and therapy offices allow for easier maintenance.
  - Designated maintenance team



# Market Insight

- Main Customer Segments:
  - Athletic clinics with children and adults with sports injuries
  - Physical therapy clinics serving those with injuries related to aging
- What does the product provide?
  - Non-invasive relief of joint pain
  - Improved function of joints
  - Potential solution to cartilage related joint issues
- What do we provide?
  - Seminars to learn about the product via sales reps
  - Dedicated technicians to perform maintenance
- Room for growth?
  - Potential for take-home kits, similar to at-home STIM therapy kits



# The Business Model Canvas

Designed for: NASA Innovation

Designed by:

Date: 3/23/23

Version: 3

## KEY PARTNERS

Therapeutic offices  
and hospitals

Medical Universities to  
perform studies

Legal Team

## KEY ACTIVITIES

Manufacturing

Research and Development

Training offices on how to use  
the product

Legal team to help prevent  
any backfire from misuse

## KEY RESOURCES

Intellectual property

Sales rep/training team

Material Components

Manufacturing facilities

## VALUE PROPOSITIONS

Provides a non-invasive  
therapy method to  
regenerate joint damage  
Less expensive to the end  
user than surgery

Reduced recovery time  
from joint treatment

Improve health and  
function of aging joints

MVP - A therapeutic device  
to help reduce joint pain

## CUSTOMER RELATIONSHIPS

**Dedicated Personal Service**  
maintained by sales reps

**Get** - Seminars / Sales Reps

**Keep** - Dedicated aftercare of  
technology

**Grow** - Clinical Testimonies  
Take-Home Kits

## CHANNELS

**A** - Direct sales force  
advertises to clinics

**E** - Questionnaire

**P/D** - Provide services through  
partner channels (physical  
therapy offices)

**AS** - Maintenance / Training on  
new technology

## CUSTOMER SEGMENTS

Segmented- athletic  
clinics with children  
and adults with sports  
injuries

Physical therapy  
clinics serving those  
with injuries related to  
aging

## COST STRUCTURE

Value-Driven

Economy of Scale

Variable costs: Manufacturing, maintaining customer  
relationships, operating expenses

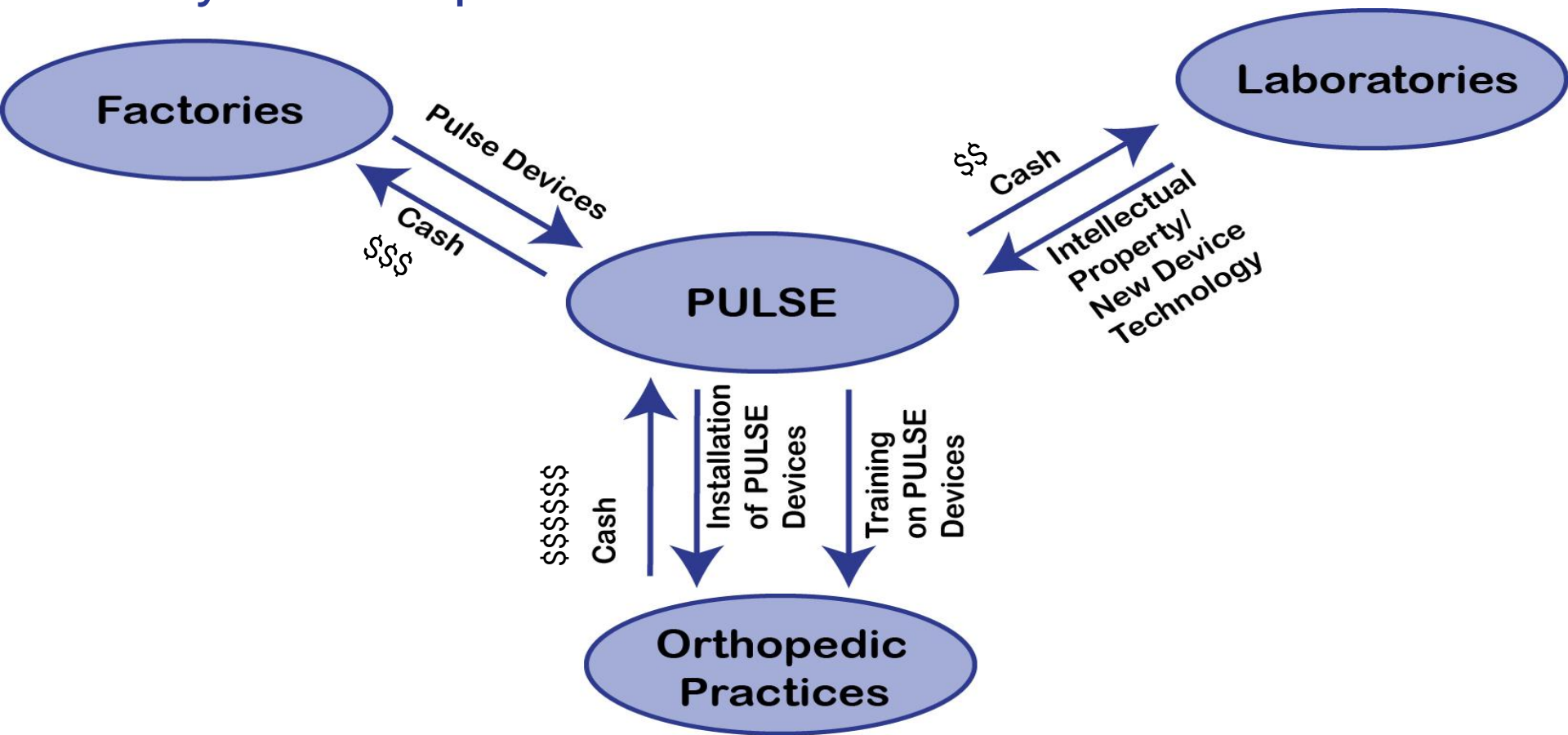
Fixed costs: Manufacturing facilities, capital expenses

## REVENUE STREAMS

Asset leasing options for clinics depending on their needs

Price range of \$10,000-15,000

# Ecosystem Map



Any Questions?

